

September 2016

Amity School District/4306  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
Amity School District/4306

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 determining 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.



September 2016  
Amity School District/4306

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee'.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau'.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Amity School District -- #4306**

September 2016

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# Executive Summary

Milliman has prepared this report for Amity School District to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Amity School District.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Amity School District***

	Payroll		
	Tier 1/Tier 2	OPSRP General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(22.10%)	(22.10%)	(22.10%)
<b>Net pension contribution rate</b>	<b>4.60%</b>	<b>0.00%</b>	<b>4.11%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>5.10%</b>	<b>0.43%</b>	<b>4.54%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.



# Executive Summary

## Accounting Information (continued)

### ***Retiree Healthcare***

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Amity School District***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$9,924,951	\$8,871,144
Allocated pooled OPSRP UAL	540,944	429,584
Side account	7,992,225	8,546,954
Net unfunded pension actuarial accrued liability	2,473,670	753,774
Combined valuation payroll	3,805,074	3,757,675
Net pension UAL as a percentage of payroll	65%	20%
Calculated Side Account Rate Relief	(22.10%)	(22.48%)
Allocated Pooled RHIA UAL	\$18,476	\$29,868

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### OPSRP

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### Retiree Healthcare

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%

# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$8,546,954</b>	<b>\$8,546,954</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2015		(732,773)	(732,773)
5. Side account earnings during 2015		179,043	179,043
<b>6. Side account as of December 31, 2015</b> <b>(1. + 2. + 3. + 4. + 5.)</b>		<b>\$7,992,225</b>	<b>\$7,992,225</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$7,992,225	\$8,546,954
Side Account 2	0	0
Side Account 3	0	0
<b>Total</b>	<b>\$7,992,225</b>	<b>\$8,546,954</b>

## 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, 2015	December 31, 2014
1. Total side account	\$7,992,225	\$8,546,954
2. Combined valuation payroll	3,805,074	3,757,675
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(22.10%)	(22.48%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.



## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.

September 2016

Baker School District #5J/3003  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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.

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September 2016  
Baker School District #5J/3003

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 determining 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.



September 2016  
Baker School District #5J/3003

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee'.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau'.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Baker School District #5J -- #3003**

September 2016



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# Executive Summary

Milliman has prepared this report for Baker School District #5J to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Baker School District #5J.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Baker School District #5J***

	Payroll		
	Tier 1/Tier 2	OPSRP	
		General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(11.52%)	(11.52%)	(11.52%)
<b>Net pension contribution rate</b>	<b>15.18%</b>	<b>9.92%</b>	<b>14.69%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>15.68%</b>	<b>10.35%</b>	<b>15.12%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.

# Executive Summary

## Accounting Information (continued)

### ***Retiree Healthcare***

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Baker School District #5J***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$22,774,217	\$20,046,052
Allocated pooled OPSRP UAL	1,241,274	970,728
Side account	9,557,121	10,258,631
Net unfunded pension actuarial accrued liability	14,458,370	10,758,149
Combined valuation payroll	8,731,285	8,491,188
Net pension UAL as a percentage of payroll	166%	127%
Calculated Side Account Rate Relief	(11.52%)	(11.94%)
Allocated Pooled RHIA UAL	\$42,396	\$67,493

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### ***School District Pool***

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### **Retiree Healthcare**

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%



# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$10,258,631</b>	<b>\$10,258,631</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2015		(918,307)	(918,307)
5. Side account earnings during 2015		217,796	217,796
<b>6. Side account as of December 31, 2015</b> <b>(1. + 2. + 3. + 4. + 5.)</b>		<b>\$9,557,121</b>	<b>\$9,557,121</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$9,557,121	\$10,258,631
Side Account 2	0	0
Side Account 3	0	0
<b>Total</b>	<b>\$9,557,121</b>	<b>\$10,258,631</b>

## 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, 2015	December 31, 2014
1. Total side account	\$9,557,121	\$10,258,631
2. Combined valuation payroll	8,731,285	8,491,188
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(11.52%)	(11.94%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.

## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.



September 2016

Banks School District/4035  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).

September 2016  
Banks School District/4035

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.

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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 determining 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.



September 2016  
Banks School District/4035

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee'.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau'.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Banks School District -- #4035**

September 2016

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# Executive Summary

Milliman has prepared this report for Banks School District to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Banks School District.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Banks School District***

	Payroll		
	Tier 1/Tier 2	OPSRP General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(4.93%)	(4.93%)	(4.93%)
<b>Net pension contribution rate</b>	<b>21.77%</b>	<b>16.51%</b>	<b>21.28%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>22.27%</b>	<b>16.94%</b>	<b>21.71%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.



# Executive Summary

## Accounting Information (continued)

### ***Retiree Healthcare***

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Banks School District***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$12,306,416	\$9,669,179
Allocated pooled OPSRP UAL	670,742	468,229
Side account	2,210,282	2,399,389
Net unfunded pension actuarial accrued liability	10,766,876	7,738,019
Combined valuation payroll	4,718,091	4,095,710
Net pension UAL as a percentage of payroll	228%	189%
Calculated Side Account Rate Relief	(4.93%)	(5.79%)
Allocated Pooled RHIA UAL	\$22,909	\$32,555

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### **Retiree Healthcare**

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%

# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$2,399,389</b>	<b>\$2,399,389</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2015		(237,766)	(237,766)
5. Side account earnings during 2015		49,660	49,660
<b>6. Side account as of December 31, 2015</b> <b>(1. + 2. + 3. + 4. + 5.)</b>		<b>\$2,210,282</b>	<b>\$2,210,282</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$2,210,282	\$2,399,389
Side Account 2	0	0
Side Account 3	0	0
<b>Total</b>	<b>\$2,210,282</b>	<b>\$2,399,389</b>

## 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, 2015	December 31, 2014
1. Total side account	\$2,210,282	\$2,399,389
2. Combined valuation payroll	4,718,091	4,095,710
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(4.93%)	(5.79%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.



## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.

September 2016

Beaverton School District/4062  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
Beaverton School District/4062

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 determining 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.



September 2016  
Beaverton School District/4062

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee'.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau'.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Beaverton School District -- #4062**

September 2016



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# Executive Summary

Milliman has prepared this report for Beaverton School District to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Beaverton School District.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Beaverton School District***

	Payroll		
	Tier 1/Tier 2	OPSRP General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(9.68%)	(9.68%)	(9.68%)
<b>Net pension contribution rate</b>	<b>17.02%</b>	<b>11.76%</b>	<b>16.53%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>17.52%</b>	<b>12.19%</b>	<b>16.96%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.

# Executive Summary

## Accounting Information (continued)

### ***Retiree Healthcare***

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Beaverton School District***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$589,693,186	\$481,942,621
Allocated pooled OPSRP UAL	32,140,327	23,338,013
Side account	227,217,283	166,381,136
Net unfunded pension actuarial accrued liability	394,616,230	338,899,498
Combined valuation payroll	226,079,315	204,143,210
Net pension UAL as a percentage of payroll	175%	166%
Calculated Side Account Rate Relief	(9.68%)	(8.06%)
Allocated Pooled RHIA UAL	\$1,097,764	\$1,622,650

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### **Retiree Healthcare**

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%



# 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
<b>1. Side account as of December 31, 2014</b>	<b>N/A</b>	<b>\$166,381,136</b>	<b>\$166,381,136</b>
2. Deposits during 2015	78,670,639	N/A	78,670,639
3. Administrative expenses	(2,500)	(1,000)	(3,500)
4. Amount transferred to employer reserves during 2015	(5,511,089)	(15,971,092)	(21,482,180)
5. Side account earnings during 2015	196,307	3,454,881	3,651,188
<b>6. Side account as of December 31, 2015</b> <i>(1. + 2. + 3. + 4. + 5.)</i>	<b>\$73,353,357</b>	<b>\$153,863,926</b>	<b>\$227,217,283</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$153,863,926	\$166,381,136
Side Account 2	73,353,357	0
Side Account 3	0	0
<b>Total</b>	<b>\$227,217,283</b>	<b>\$166,381,136</b>

## 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, 2015	December 31, 2014
1. Total side account	\$227,217,283	\$166,381,136
2. Combined valuation payroll	226,079,315	204,143,210
3. Average amortization factor	10.379	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(9.68%)	(8.06%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.

## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.



September 2016

Bend-La Pine Public Schools/3291  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
Bend-La Pine Public Schools/3291

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 determining 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.



September 2016  
Bend-La Pine Public Schools/3291

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee'.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau'.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Bend-La Pine Public Schools -- #3291**

September 2016

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# Executive Summary

Milliman has prepared this report for Bend-La Pine Public Schools to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Bend-La Pine Public Schools.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Bend-La Pine Public Schools***

	Payroll		
	Tier 1/Tier 2	OPSRP General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(9.21%)	(9.21%)	(9.21%)
<b>Net pension contribution rate</b>	<b>17.49%</b>	<b>12.23%</b>	<b>17.00%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>17.99%</b>	<b>12.66%</b>	<b>17.43%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.



# Executive Summary

## Accounting Information (continued)

### ***Retiree Healthcare***

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Bend-La Pine Public Schools***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$217,008,287	\$186,847,760
Allocated pooled OPSRP UAL	11,827,705	9,048,080
Side account	72,828,894	78,510,061
Net unfunded pension actuarial accrued liability	156,007,098	117,385,779
Combined valuation payroll	83,197,646	79,145,732
Net pension UAL as a percentage of payroll	188%	148%
Calculated Side Account Rate Relief	(9.21%)	(9.81%)
Allocated Pooled RHIA UAL	\$403,979	\$629,097

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### **Retiree Healthcare**

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%

# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$78,510,061</b>	<b>\$78,510,061</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(3,000)	(3,000)
4. Amount transferred to employer reserves during 2015		(7,337,471)	(7,337,471)
5. Side account earnings during 2015		1,659,305	1,659,305
<b>6. Side account as of December 31, 2015</b> <i>(1. + 2. + 3. + 4. + 5.)</i>		<b>\$72,828,894</b>	<b>\$72,828,894</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$42,397,703	\$45,707,902
Side Account 2	25,691,576	27,697,837
Side Account 3	4,739,615	5,104,322
<b>Total</b>	<b>\$72,828,894</b>	<b>\$78,510,061</b>

## 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, 2015	December 31, 2014
1. Total side account	\$72,828,894	\$78,510,061
2. Combined valuation payroll	83,197,646	79,145,732
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(9.21%)	(9.81%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.



## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.

September 2016

Brookings-Harbor School District #17C/3283  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016

Brookings-Harbor School District #17C/3283

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 determining 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.



September 2016  
Brookings-Harbor School District #17C/3283

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee'.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau'.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Brookings-Harbor School District #17C -- #3283**

September 2016



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# Executive Summary

Milliman has prepared this report for Brookings-Harbor School District #17C to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Brookings-Harbor School District #17C.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Brookings-Harbor School District #17C***

	Payroll		
	Tier 1/Tier 2	OPSRP	
		General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(16.62%)	(16.62%)	(16.62%)
<b>Net pension contribution rate</b>	<b>10.08%</b>	<b>4.82%</b>	<b>9.59%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>10.58%</b>	<b>5.25%</b>	<b>10.02%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.

# Executive Summary

## Accounting Information (continued)

### **Retiree Healthcare**

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Brookings-Harbor School District #17C***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$19,208,758	\$16,345,365
Allocated pooled OPSRP UAL	1,046,944	791,522
Side account	11,632,862	12,408,376
Net unfunded pension actuarial accrued liability	8,622,840	4,728,511
Combined valuation payroll	7,364,343	6,923,636
Net pension UAL as a percentage of payroll	117%	68%
Calculated Side Account Rate Relief	(16.62%)	(17.71%)
Allocated Pooled RHIA UAL	\$35,759	\$55,033

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### **Retiree Healthcare**

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%



# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$12,408,376</b>	<b>\$12,408,376</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(2,000)	(2,000)
4. Amount transferred to employer reserves during 2015		(1,032,980)	(1,032,980)
5. Side account earnings during 2015		259,466	259,466
<b>6. Side account as of December 31, 2015</b> <i>(1. + 2. + 3. + 4. + 5.)</i>		<b>\$11,632,862</b>	<b>\$11,632,862</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$7,278,664	\$7,763,330
Side Account 2	4,354,198	4,645,047
Side Account 3	0	0
<b>Total</b>	<b>\$11,632,862</b>	<b>\$12,408,376</b>

## 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, 2015	December 31, 2014
1. Total side account	\$11,632,862	\$12,408,376
2. Combined valuation payroll	7,364,343	6,923,636
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(16.62%)	(17.71%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.

## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.



September 2016

Canby School District/4333  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
Canby School District/4333

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 determining 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.



September 2016  
Canby School District/4333

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee'.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau'.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Canby School District -- #4333**

September 2016

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# Executive Summary

Milliman has prepared this report for Canby School District to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Canby School District.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Canby School District***

	Payroll		
	Tier 1/Tier 2	OPSRP General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(20.27%)	(20.27%)	(20.27%)
<b>Net pension contribution rate</b>	<b>6.43%</b>	<b>1.17%</b>	<b>5.94%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>6.93%</b>	<b>1.60%</b>	<b>6.37%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.



# Executive Summary

## Accounting Information (continued)

### ***Retiree Healthcare***

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Canby School District***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$59,136,997	\$49,580,733
Allocated pooled OPSRP UAL	3,223,172	2,400,941
Side account	43,677,576	46,016,474
Net unfunded pension actuarial accrued liability	18,682,593	5,965,200
Combined valuation payroll	22,672,217	21,001,608
Net pension UAL as a percentage of payroll	82%	28%
Calculated Side Account Rate Relief	(20.27%)	(21.65%)
Allocated Pooled RHIA UAL	\$110,089	\$166,933

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### **Retiree Healthcare**

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%

# 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.

	<b>New</b>	<b>Continuing</b>	<b>Total</b>
<b>1. Side account as of December 31, 2014</b>	<b>N/A</b>	<b>\$46,016,474</b>	<b>\$46,016,474</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(2,000)	(2,000)
4. Amount transferred to employer reserves during 2015		(3,306,776)	(3,306,776)
5. Side account earnings during 2015		969,878	969,878
<b>6. Side account as of December 31, 2015</b> <b>(1. + 2. + 3. + 4. + 5.)</b>		<b>\$43,677,576</b>	<b>\$43,677,576</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$19,244,514	\$20,276,919
Side Account 2	24,433,062	25,739,555
Side Account 3	0	0
<b>Total</b>	<b>\$43,677,576</b>	<b>\$46,016,474</b>

## 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, 2015	December 31, 2014
1. Total side account	\$43,677,576	\$46,016,474
2. Combined valuation payroll	22,672,217	21,001,608
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(20.27%)	(21.65%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.



## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.

September 2016

Cascade School District #5/4334  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
Cascade School District #5/4334

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 determining 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.



September 2016  
Cascade School District #5/4334

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee', with a long horizontal flourish extending to the right.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau', with a long horizontal flourish extending to the right.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Cascade School District #5 -- #4334**

September 2016



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# Executive Summary

Milliman has prepared this report for Cascade School District #5 to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Cascade School District #5.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Cascade School District #5***

	Payroll		
	Tier 1/Tier 2	OPSRP	
		General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(17.85%)	(17.85%)	(17.85%)
<b>Net pension contribution rate</b>	<b>8.85%</b>	<b>3.59%</b>	<b>8.36%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>9.35%</b>	<b>4.02%</b>	<b>8.79%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.

# Executive Summary

## Accounting Information (continued)

### ***Retiree Healthcare***

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Cascade School District #5***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$25,807,163	\$22,934,683
Allocated pooled OPSRP UAL	1,406,580	1,110,609
Side account	16,789,219	17,977,344
Net unfunded pension actuarial accrued liability	10,424,524	6,067,948
Combined valuation payroll	9,894,070	9,714,766
Net pension UAL as a percentage of payroll	105%	62%
Calculated Side Account Rate Relief	(17.85%)	(18.29%)
Allocated Pooled RHIA UAL	\$48,042	\$77,219

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### **Retiree Healthcare**

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%



# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$17,977,344</b>	<b>\$17,977,344</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2015		(1,563,153)	(1,563,153)
5. Side account earnings during 2015		376,027	376,027
<b>6. Side account as of December 31, 2015</b> <i>(1. + 2. + 3. + 4. + 5.)</i>		<b>\$16,789,219</b>	<b>\$16,789,219</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$16,789,219	\$17,977,344
Side Account 2	0	0
Side Account 3	0	0
<b>Total</b>	<b>\$16,789,219</b>	<b>\$17,977,344</b>

## 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, 2015	December 31, 2014
1. Total side account	\$16,789,219	\$17,977,344
2. Combined valuation payroll	9,894,070	9,714,766
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(17.85%)	(18.29%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.

## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.



September 2016

Central School District #13J/3859  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
Central School District #13J/3859

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 determining 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.



September 2016  
Central School District #13J/3859

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee'.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau'.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Central School District #13J -- #3859**

September 2016

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# Executive Summary

Milliman has prepared this report for Central School District #13J to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Central School District #13J.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Central School District #13J***

	Payroll		
	Tier 1/Tier 2	OPSRP	
		General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(14.73%)	(14.73%)	(14.73%)
<b>Net pension contribution rate</b>	<b>11.97%</b>	<b>6.71%</b>	<b>11.48%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>12.47%</b>	<b>7.14%</b>	<b>11.91%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.



# Executive Summary

## Accounting Information (continued)

### **Retiree Healthcare**

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### **Central School District #13J**

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$41,237,447	\$33,132,413
Allocated pooled OPSRP UAL	2,247,584	1,604,433
Side account	22,134,930	23,921,175
Net unfunded pension actuarial accrued liability	21,350,101	10,815,671
Combined valuation payroll	15,809,804	14,034,362
Net pension UAL as a percentage of payroll	135%	77%
Calculated Side Account Rate Relief	(14.73%)	(16.85%)
Allocated Pooled RHIA UAL	\$76,767	\$111,553

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### **Retiree Healthcare**

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%

# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$23,921,175</b>	<b>\$23,921,175</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2015		(2,283,686)	(2,283,686)
5. Side account earnings during 2015		498,440	498,440
<b>6. Side account as of December 31, 2015</b> <b>(1. + 2. + 3. + 4. + 5.)</b>		<b>\$22,134,930</b>	<b>\$22,134,930</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$22,134,930	\$23,921,175
Side Account 2	0	0
Side Account 3	0	0
<b>Total</b>	<b>\$22,134,930</b>	<b>\$23,921,175</b>

## 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, 2015	December 31, 2014
1. Total side account	\$22,134,930	\$23,921,175
2. Combined valuation payroll	15,809,804	14,034,362
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(14.73%)	(16.85%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.



## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.

September 2016

City of Phoenix School District/3414  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
City of Phoenix School District/3414

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 determining 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.



September 2016  
City of Phoenix School District/3414

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee'.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau'.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**City of Phoenix School District -- #3414**

September 2016



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# Executive Summary

Milliman has prepared this report for City of Phoenix School District to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to City of Phoenix School District.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for City of Phoenix School District***

	Payroll		
	Tier 1/Tier 2	OPSRP	
		General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(12.48%)	(12.48%)	(12.48%)
<b>Net pension contribution rate</b>	<b>14.22%</b>	<b>8.96%</b>	<b>13.73%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>14.72%</b>	<b>9.39%</b>	<b>14.16%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.

# Executive Summary

## Accounting Information (continued)

### ***Retiree Healthcare***

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***City of Phoenix School District***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$28,769,451	\$24,317,240
Allocated pooled OPSRP UAL	1,568,035	1,177,559
Side account	13,086,449	13,868,323
Net unfunded pension actuarial accrued liability	17,251,037	11,626,476
Combined valuation payroll	11,029,766	10,300,395
Net pension UAL as a percentage of payroll	156%	113%
Calculated Side Account Rate Relief	(12.48%)	(13.31%)
Allocated Pooled RHIA UAL	\$53,557	\$81,874

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### **Retiree Healthcare**

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%



# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$13,868,323</b>	<b>\$13,868,323</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2015		(1,072,288)	(1,072,288)
5. Side account earnings during 2015		291,414	291,414
<b>6. Side account as of December 31, 2015</b> <i>(1. + 2. + 3. + 4. + 5.)</i>		<b>\$13,086,449</b>	<b>\$13,086,449</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$13,086,449	\$13,868,323
Side Account 2	0	0
Side Account 3	0	0
<b>Total</b>	<b>\$13,086,449</b>	<b>\$13,868,323</b>

## 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, 2015	December 31, 2014
1. Total side account	\$13,086,449	\$13,868,323
2. Combined valuation payroll	11,029,766	10,300,395
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(12.48%)	(13.31%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.

## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.



September 2016

Clackamas Education Service District/4259  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
Clackamas Education Service District/4259

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 determining 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.



September 2016  
Clackamas Education Service District/4259

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee', with a long horizontal flourish extending to the right.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau', with a long horizontal flourish extending to the right.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Clackamas Education Service District -- #4259**

September 2016

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# Executive Summary

Milliman has prepared this report for Clackamas Education Service District to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Clackamas Education Service District.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Clackamas Education Service District***

	Payroll		
	Tier 1/Tier 2	OPSRP General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(12.11%)	(12.11%)	(12.11%)
<b>Net pension contribution rate</b>	<b>14.59%</b>	<b>9.33%</b>	<b>14.10%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>15.09%</b>	<b>9.76%</b>	<b>14.53%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.



# Executive Summary

## Accounting Information (continued)

### ***Retiree Healthcare***

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Clackamas Education Service District***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$36,074,214	\$32,598,009
Allocated pooled OPSRP UAL	1,966,170	1,578,555
Side account	15,918,426	17,083,455
Net unfunded pension actuarial accrued liability	22,121,958	17,093,109
Combined valuation payroll	13,830,300	13,807,997
Net pension UAL as a percentage of payroll	160%	124%
Calculated Side Account Rate Relief	(12.11%)	(12.23%)
Allocated Pooled RHIA UAL	\$67,155	\$109,754

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### **Retiree Healthcare**

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%

# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$17,083,455</b>	<b>\$17,083,455</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2015		(1,521,438)	(1,521,438)
5. Side account earnings during 2015		357,408	357,408
<b>6. Side account as of December 31, 2015</b> <i>(1. + 2. + 3. + 4. + 5.)</i>		<b>\$15,918,426</b>	<b>\$15,918,426</b>

## Side Account Information

### Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$15,918,426	\$17,083,455
Side Account 2	0	0
Side Account 3	0	0
<b>Total</b>	<b>\$15,918,426</b>	<b>\$17,083,455</b>

### 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, 2015	December 31, 2014
1. Total side account	\$15,918,426	\$17,083,455
2. Combined valuation payroll	13,830,300	13,807,997
3. Average amortization factor	9.504	10.118
4. Total side account rate $(-1. \div 2. \div 3.)^1$	(12.11%)	(12.23%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.



## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.

September 2016

Clatsop County School District #1C/3179  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
Clatsop County School District #1C/3179

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 determining 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.



September 2016  
Clatsop County School District #1C/3179

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee', with a long horizontal flourish extending to the right.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau', with a long horizontal flourish extending to the right.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Clatsop County School District #1C -- #3179**

September 2016



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# Executive Summary

Milliman has prepared this report for Clatsop County School District #1C to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Clatsop County School District #1C.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Clatsop County School District #1C***

	Payroll		
	Tier 1/Tier 2	OPSRP	
		General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(24.02%)	(24.02%)	(24.02%)
<b>Net pension contribution rate</b>	<b>2.68%</b>	<b>0.00%</b>	<b>2.19%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>3.18%</b>	<b>0.43%</b>	<b>2.62%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.

# Executive Summary

## Accounting Information (continued)

### **Retiree Healthcare**

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Clatsop County School District #1C***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$24,874,441	\$22,747,195
Allocated pooled OPSRP UAL	1,355,743	1,101,530
Side account	21,766,094	23,180,563
Net unfunded pension actuarial accrued liability	4,464,090	668,162
Combined valuation payroll	9,536,479	9,635,349
Net pension UAL as a percentage of payroll	47%	7%
Calculated Side Account Rate Relief	(24.02%)	(23.78%)
Allocated Pooled RHIA UAL	\$46,306	\$76,587

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### **Retiree Healthcare**

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%



# 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.

	<b>New</b>	<b>Continuing</b>	<b>Total</b>
<b>1. Side account as of December 31, 2014</b>	<b>N/A</b>	<b>\$23,180,563</b>	<b>\$23,180,563</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2015		(1,902,067)	(1,902,067)
5. Side account earnings during 2015		488,597	488,597
<b>6. Side account as of December 31, 2015</b> <i>(1. + 2. + 3. + 4. + 5.)</i>		<b>\$21,766,094</b>	<b>\$21,766,094</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$21,766,094	\$23,180,563
Side Account 2	0	0
Side Account 3	0	0
<b>Total</b>	<b>\$21,766,094</b>	<b>\$23,180,563</b>

## 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, 2015	December 31, 2014
1. Total side account	\$21,766,094	\$23,180,563
2. Combined valuation payroll	9,536,479	9,635,349
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(24.02%)	(23.78%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### *Changes in Actuarial Methods and Allocation Procedures*

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### *Changes in Assumptions*

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.

## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.



September 2016

Coos Bay School District #9/3242  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
Coos Bay School District #9/3242

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 determining 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.



September 2016  
Coos Bay School District #9/3242

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee', with a long horizontal flourish extending to the right.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau', with a long horizontal flourish extending to the right.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Coos Bay School District #9 -- #3242**

September 2016

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# Executive Summary

Milliman has prepared this report for Coos Bay School District #9 to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Coos Bay School District #9.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Coos Bay School District #9***

	Payroll		
	Tier 1/Tier 2	OPSRP General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(7.02%)	(7.02%)	(7.02%)
<b>Net pension contribution rate</b>	<b>19.68%</b>	<b>14.42%</b>	<b>19.19%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>20.18%</b>	<b>14.85%</b>	<b>19.62%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.



# Executive Summary

## Accounting Information (continued)

### **Retiree Healthcare**

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### **Coos Bay School District #9**

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$33,016,134	\$28,936,597
Allocated pooled OPSRP UAL	1,799,494	1,401,251
Side account	8,441,148	8,912,279
Net unfunded pension actuarial accrued liability	26,374,480	21,425,569
Combined valuation payroll	12,657,879	12,257,081
Net pension UAL as a percentage of payroll	208%	175%
Calculated Side Account Rate Relief	(7.02%)	(7.19%)
Allocated Pooled RHIA UAL	\$61,462	\$97,426

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### **Retiree Healthcare**

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%

# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$8,912,279</b>	<b>\$8,912,279</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2015		(657,804)	(657,804)
5. Side account earnings during 2015		187,674	187,674
<b>6. Side account as of December 31, 2015</b> <b>(1. + 2. + 3. + 4. + 5.)</b>		<b>\$8,441,148</b>	<b>\$8,441,148</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$8,441,148	\$8,912,279
Side Account 2	0	0
Side Account 3	0	0
<b>Total</b>	<b>\$8,441,148</b>	<b>\$8,912,279</b>

## 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, 2015	December 31, 2014
1. Total side account	\$8,441,148	\$8,912,279
2. Combined valuation payroll	12,657,879	12,257,081
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(7.02%)	(7.19%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.



## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.

September 2016

Corvallis School District #509J/3039  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
Corvallis School District #509J/3039

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 determining 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.



September 2016  
Corvallis School District #509J/3039

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee', with a long horizontal flourish extending to the right.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau', with a long horizontal flourish extending to the right.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Corvallis School District #509J -- #3039**

September 2016



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# Executive Summary

Milliman has prepared this report for Corvallis School District #509J to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Corvallis School District #509J.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Corvallis School District #509J***

	Payroll		
	Tier 1/Tier 2	OPSRP General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(12.64%)	(12.64%)	(12.64%)
<b>Net pension contribution rate</b>	<b>14.06%</b>	<b>8.80%</b>	<b>13.57%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>14.56%</b>	<b>9.23%</b>	<b>14.00%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.

# Executive Summary

## Accounting Information (continued)

### **Retiree Healthcare**

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### **Corvallis School District #509J**

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$80,221,313	\$71,071,943
Allocated pooled OPSRP UAL	4,372,340	3,441,650
Side account	37,621,340	39,799,074
Net unfunded pension actuarial accrued liability	46,972,313	34,714,519
Combined valuation payroll	30,755,620	30,104,942
Net pension UAL as a percentage of payroll	153%	115%
Calculated Side Account Rate Relief	(12.64%)	(12.85%)
Allocated Pooled RHIA UAL	\$149,339	\$239,292

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### **Retiree Healthcare**

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%



# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$39,799,074</b>	<b>\$39,799,074</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(3,000)	(3,000)
4. Amount transferred to employer reserves during 2015		(3,009,177)	(3,009,177)
5. Side account earnings during 2015		834,443	834,443
<b>6. Side account as of December 31, 2015</b> <i>(1. + 2. + 3. + 4. + 5.)</i>		<b>\$37,621,340</b>	<b>\$37,621,340</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$27,640,800	\$29,276,468
Side Account 2	3,914,237	4,146,485
Side Account 3	6,066,303	6,376,121
<b>Total</b>	<b>\$37,621,340</b>	<b>\$39,799,074</b>

## 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, 2015	December 31, 2014
1. Total side account	\$37,621,340	\$39,799,074
2. Combined valuation payroll	30,755,620	30,104,942
3. Average amortization factor	9.680	10.304
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(12.64%)	(12.85%)

<sup>1</sup> 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.

## Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

### Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### *Changes in Actuarial Methods and Allocation Procedures*

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### *Changes in Assumptions*

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.

## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.



September 2016

Creswell School District #40/3502  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
Creswell School District #40/3502

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 determining 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.



September 2016  
Creswell School District #40/3502

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee', with a long horizontal flourish extending to the right.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau', with a long horizontal flourish extending to the right.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Creswell School District #40 -- #3502**

September 2016

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# Executive Summary

Milliman has prepared this report for Creswell School District #40 to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Creswell School District #40.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Creswell School District #40***

	Payroll		
	Tier 1/Tier 2	OPSRP	
		General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(4.72%)	(4.72%)	(4.72%)
<b>Net pension contribution rate</b>	<b>21.98%</b>	<b>16.72%</b>	<b>21.49%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>22.48%</b>	<b>17.15%</b>	<b>21.92%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.



# Executive Summary

## Accounting Information (continued)

### ***Retiree Healthcare***

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Creswell School District #40***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$16,112,494	\$13,882,012
Allocated pooled OPSRP UAL	878,187	672,235
Side account	2,769,038	2,972,861
Net unfunded pension actuarial accrued liability	14,221,643	11,581,386
Combined valuation payroll	6,177,283	5,880,199
Net pension UAL as a percentage of payroll	230%	197%
Calculated Side Account Rate Relief	(4.72%)	(5.00%)
Allocated Pooled RHIA UAL	\$29,995	\$46,739

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### **Retiree Healthcare**

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%

# 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.

	<b>New</b>	<b>Continuing</b>	<b>Total</b>
<b>1. Side account as of December 31, 2014</b>	<b>N/A</b>	<b>\$2,972,861</b>	<b>\$2,972,861</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2015		(264,986)	(264,986)
5. Side account earnings during 2015		62,163	62,163
<b>6. Side account as of December 31, 2015</b> <b>(1. + 2. + 3. + 4. + 5.)</b>		<b>\$2,769,038</b>	<b>\$2,769,038</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$2,769,038	\$2,972,861
Side Account 2	0	0
Side Account 3	0	0
<b>Total</b>	<b>\$2,769,038</b>	<b>\$2,972,861</b>

## 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, 2015	December 31, 2014
1. Total side account	\$2,769,038	\$2,972,861
2. Combined valuation payroll	6,177,283	5,880,199
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(4.72%)	(5.00%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### *Changes in Actuarial Methods and Allocation Procedures*

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### *Changes in Assumptions*

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.



## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.

September 2016

Crook County School District/3274  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
Crook County School District/3274

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 determining 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.



September 2016  
Crook County School District/3274

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee'.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau'.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Crook County School District -- #3274**

September 2016



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# Executive Summary

Milliman has prepared this report for Crook County School District to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Crook County School District.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Crook County School District***

	Payroll		
	Tier 1/Tier 2	OPSRP	
		General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(20.92%)	(20.92%)	(20.92%)
<b>Net pension contribution rate</b>	<b>5.78%</b>	<b>0.52%</b>	<b>5.29%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>6.28%</b>	<b>0.95%</b>	<b>5.72%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.

# Executive Summary

## Accounting Information (continued)

### **Retiree Healthcare**

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Crook County School District***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$35,880,970	\$32,854,006
Allocated pooled OPSRP UAL	1,955,637	1,590,951
Side account	27,352,240	29,728,565
Net unfunded pension actuarial accrued liability	10,484,367	4,716,392
Combined valuation payroll	13,756,213	13,916,433
Net pension UAL as a percentage of payroll	76%	34%
Calculated Side Account Rate Relief	(20.92%)	(21.11%)
Allocated Pooled RHIA UAL	\$66,795	\$110,616

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### ***OPSRP***

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### ***Retiree Healthcare***

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%



# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$29,728,565</b>	<b>\$29,728,565</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(2,000)	(2,000)
4. Amount transferred to employer reserves during 2015		(2,988,794)	(2,988,794)
5. Side account earnings during 2015		614,469	614,469
<b>6. Side account as of December 31, 2015</b> <b>(1. + 2. + 3. + 4. + 5.)</b>		<b>\$27,352,240</b>	<b>\$27,352,240</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$11,898,544	\$12,960,113
Side Account 2	15,453,696	16,768,452
Side Account 3	0	0
<b>Total</b>	<b>\$27,352,240</b>	<b>\$29,728,565</b>

## 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, 2015	December 31, 2014
1. Total side account	\$27,352,240	\$29,728,565
2. Combined valuation payroll	13,756,213	13,916,433
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(20.92%)	(21.11%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.

## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

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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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.



September 2016

David Douglas School District/3843  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
David Douglas School District/3843

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 determining 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.



September 2016  
David Douglas School District/3843

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee'.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau'.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**David Douglas School District -- #3843**

September 2016

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# Executive Summary

Milliman has prepared this report for David Douglas School District to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to David Douglas School District.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for David Douglas School District***

	Payroll		
	Tier 1/Tier 2	OPSRP General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(3.55%)	(3.55%)	(3.55%)
<b>Net pension contribution rate</b>	<b>23.15%</b>	<b>17.89%</b>	<b>22.66%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>23.65%</b>	<b>18.32%</b>	<b>23.09%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.



# Executive Summary

## Accounting Information (continued)

### **Retiree Healthcare**

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***David Douglas School District***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$179,885,648	\$153,607,734
Allocated pooled OPSRP UAL	9,804,393	7,438,436
Side account	23,238,571	25,017,167
Net unfunded pension actuarial accrued liability	166,451,470	136,029,003
Combined valuation payroll	68,965,396	65,065,787
Net pension UAL as a percentage of payroll	241%	209%
Calculated Side Account Rate Relief	(3.55%)	(3.80%)
Allocated Pooled RHIA UAL	\$334,872	\$517,181

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### ***OPSRP***

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### ***Retiree Healthcare***

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%

# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$25,017,167</b>	<b>\$25,017,167</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2015		(2,297,656)	(2,297,656)
5. Side account earnings during 2015		520,060	520,060
<b>6. Side account as of December 31, 2015</b> <i>(1. + 2. + 3. + 4. + 5.)</i>		<b>\$23,238,571</b>	<b>\$23,238,571</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$23,238,571	\$25,017,167
Side Account 2	0	0
Side Account 3	0	0
<b>Total</b>	<b>\$23,238,571</b>	<b>\$25,017,167</b>

## 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, 2015	December 31, 2014
1. Total side account	\$23,238,571	\$25,017,167
2. Combined valuation payroll	68,965,396	65,065,787
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(3.55%)	(3.80%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.



## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

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## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.

September 2016

Dayton Public Schools/4291  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
Dayton Public Schools/4291

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 determining 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.



September 2016  
Dayton Public Schools/4291

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee'.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau'.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Dayton Public Schools -- #4291**

September 2016



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# Executive Summary

Milliman has prepared this report for Dayton Public Schools to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Dayton Public Schools.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Dayton Public Schools***

	Payroll		
	Tier 1/Tier 2	OPSRP General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(18.47%)	(18.47%)	(18.47%)
<b>Net pension contribution rate</b>	<b>8.23%</b>	<b>2.97%</b>	<b>7.74%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>8.73%</b>	<b>3.40%</b>	<b>8.17%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.

# Executive Summary

## Accounting Information (continued)

### **Retiree Healthcare**

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Dayton Public Schools***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$12,431,212	\$10,988,905
Allocated pooled OPSRP UAL	677,544	532,136
Side account	8,366,046	8,868,203
Net unfunded pension actuarial accrued liability	4,742,710	2,652,838
Combined valuation payroll	4,765,936	4,654,725
Net pension UAL as a percentage of payroll	100%	57%
Calculated Side Account Rate Relief	(18.47%)	(18.83%)
Allocated Pooled RHIA UAL	\$23,142	\$36,998

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### **Retiree Healthcare**

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%



# 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
<b>1. Side account as of December 31, 2014</b>	<b>N/A</b>	<b>\$8,868,203</b>	<b>\$8,868,203</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(2,000)	(2,000)
4. Amount transferred to employer reserves during 2015		(685,070)	(685,070)
5. Side account earnings during 2015		184,914	184,914
<b>6. Side account as of December 31, 2015</b> <b>(1. + 2. + 3. + 4. + 5.)</b>		<b>\$8,366,046</b>	<b>\$8,366,046</b>

## Side Account Information

### Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$3,550,964	\$3,764,508
Side Account 2	4,815,082	5,103,694
Side Account 3	0	0
<b>Total</b>	<b>\$8,366,046</b>	<b>\$8,868,203</b>

### 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, 2015	December 31, 2014
1. Total side account	\$8,366,046	\$8,868,203
2. Combined valuation payroll	4,765,936	4,654,725
3. Average amortization factor	9.504	10.118
4. Total side account rate $(-1. \div 2. \div 3.)^1$	(18.47%)	(18.83%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### *Changes in Actuarial Methods and Allocation Procedures*

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### *Changes in Assumptions*

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.

## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.



September 2016

Douglas Education Service District/4237  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
Douglas Education Service District/4237

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 determining 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.



September 2016  
Douglas Education Service District/4237

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee'.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau'.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Douglas Education Service District -- #4237**

September 2016

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# Executive Summary

Milliman has prepared this report for Douglas Education Service District to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Douglas Education Service District.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Douglas Education Service District***

	Payroll		
	Tier 1/Tier 2	OPSRP General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(5.02%)	(5.02%)	(5.02%)
<b>Net pension contribution rate</b>	<b>21.68%</b>	<b>16.42%</b>	<b>21.19%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>22.18%</b>	<b>16.85%</b>	<b>21.62%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.



# Executive Summary

## Accounting Information (continued)

### ***Retiree Healthcare***

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Douglas Education Service District***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$23,428,604	\$20,445,047
Allocated pooled OPSRP UAL	1,276,940	990,049
Side account	4,282,207	4,554,870
Net unfunded pension actuarial accrued liability	20,423,337	16,880,226
Combined valuation payroll	8,982,167	8,660,196
Net pension UAL as a percentage of payroll	227%	195%
Calculated Side Account Rate Relief	(5.02%)	(5.20%)
Allocated Pooled RHIA UAL	\$43,614	\$68,836

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### OPSRP

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### Retiree Healthcare

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%

# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$4,554,870</b>	<b>\$4,554,870</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2015		(366,959)	(366,959)
5. Side account earnings during 2015		95,296	95,296
<b>6. Side account as of December 31, 2015</b> <b>(1. + 2. + 3. + 4. + 5.)</b>		<b>\$4,282,207</b>	<b>\$4,282,207</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$4,282,207	\$4,554,870
Side Account 2	0	0
Side Account 3	0	0
<b>Total</b>	<b>\$4,282,207</b>	<b>\$4,554,870</b>

## 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, 2015	December 31, 2014
1. Total side account	\$4,282,207	\$4,554,870
2. Combined valuation payroll	8,982,167	8,660,196
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(5.02%)	(5.20%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.



## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.

September 2016

Echo School District/3927  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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.

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September 2016  
Echo School District/3927

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 determining 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.



September 2016  
Echo School District/3927

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee'.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau'.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Echo School District -- #3927**

September 2016



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# Executive Summary

Milliman has prepared this report for Echo School District to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Echo School District.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Echo School District***

	Payroll		
	Tier 1/Tier 2	OPSRP General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(11.68%)	(11.68%)	(11.68%)
<b>Net pension contribution rate</b>	<b>15.02%</b>	<b>9.76%</b>	<b>14.53%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>15.52%</b>	<b>10.19%</b>	<b>14.96%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.

# Executive Summary

## Accounting Information (continued)

### **Retiree Healthcare**

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Echo School District***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$4,093,304	\$3,477,973
Allocated pooled OPSRP UAL	223,099	168,420
Side account	1,741,617	1,867,271
Net unfunded pension actuarial accrued liability	2,574,786	1,779,122
Combined valuation payroll	1,569,310	1,473,214
Net pension UAL as a percentage of payroll	164%	121%
Calculated Side Account Rate Relief	(11.68%)	(12.53%)
Allocated Pooled RHIA UAL	\$7,620	\$11,710

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### OPSRP

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### Retiree Healthcare

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%



# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$1,867,271</b>	<b>\$1,867,271</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2015		(163,894)	(163,894)
5. Side account earnings during 2015		39,240	39,240
<b>6. Side account as of December 31, 2015</b> <b>(1. + 2. + 3. + 4. + 5.)</b>		<b>\$1,741,617</b>	<b>\$1,741,617</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$1,741,617	\$1,867,271
Side Account 2	0	0
Side Account 3	0	0
<b>Total</b>	<b>\$1,741,617</b>	<b>\$1,867,271</b>

## 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, 2015	December 31, 2014
1. Total side account	\$1,741,617	\$1,867,271
2. Combined valuation payroll	1,569,310	1,473,214
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(11.68%)	(12.53%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.

## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.



September 2016

Estacada School District #108/4323  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
Estacada School District #108/4323

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 determining 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.



September 2016  
Estacada School District #108/4323

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee'.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau'.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Estacada School District #108 -- #4323**

September 2016

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# Executive Summary

Milliman has prepared this report for Estacada School District #108 to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Estacada School District #108.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Estacada School District #108***

	Payroll		
	Tier 1/Tier 2	OPSRP General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(13.38%)	(13.38%)	(13.38%)
<b>Net pension contribution rate</b>	<b>13.32%</b>	<b>8.06%</b>	<b>12.83%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>13.82%</b>	<b>8.49%</b>	<b>13.26%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.



# Executive Summary

## Accounting Information (continued)

### **Retiree Healthcare**

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Estacada School District #108***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$23,076,511	\$20,270,744
Allocated pooled OPSRP UAL	1,257,750	981,608
Side account	11,248,659	11,852,382
Net unfunded pension actuarial accrued liability	13,085,602	9,399,970
Combined valuation payroll	8,847,180	8,586,364
Net pension UAL as a percentage of payroll	148%	109%
Calculated Side Account Rate Relief	(13.38%)	(13.64%)
Allocated Pooled RHIA UAL	\$42,959	\$68,249

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### **Retiree Healthcare**

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%

# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$11,852,382</b>	<b>\$11,852,382</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2015		(850,567)	(850,567)
5. Side account earnings during 2015		247,844	247,844
<b>6. Side account as of December 31, 2015</b> <i>(1. + 2. + 3. + 4. + 5.)</i>		<b>\$11,248,659</b>	<b>\$11,248,659</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$11,248,659	\$11,852,382
Side Account 2	0	0
Side Account 3	0	0
<b>Total</b>	<b>\$11,248,659</b>	<b>\$11,852,382</b>

## 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, 2015	December 31, 2014
1. Total side account	\$11,248,659	\$11,852,382
2. Combined valuation payroll	8,847,180	8,586,364
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(13.38%)	(13.64%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### *Changes in Actuarial Methods and Allocation Procedures*

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### *Changes in Assumptions*

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.



## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.

September 2016

Eugene School District 4J/3473  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
Eugene School District 4J/3473

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 determining 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.



September 2016  
Eugene School District 4J/3473

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee'.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau'.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Eugene School District 4J -- #3473**

September 2016



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# Executive Summary

Milliman has prepared this report for Eugene School District 4J to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Eugene School District 4J.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Eugene School District 4J***

	Payroll		
	Tier 1/Tier 2	OPSRP General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(5.63%)	(5.63%)	(5.63%)
<b>Net pension contribution rate</b>	<b>21.07%</b>	<b>15.81%</b>	<b>20.58%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>21.57%</b>	<b>16.24%</b>	<b>21.01%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.

# Executive Summary

## Accounting Information (continued)

### ***Retiree Healthcare***

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Eugene School District 4J***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$228,198,623	\$192,981,957
Allocated pooled OPSRP UAL	12,437,618	9,345,128
Side account	46,835,207	50,188,241
Net unfunded pension actuarial accrued liability	193,801,034	152,138,844
Combined valuation payroll	87,487,849	81,744,080
Net pension UAL as a percentage of payroll	222%	186%
Calculated Side Account Rate Relief	(5.63%)	(6.07%)
Allocated Pooled RHIA UAL	\$424,811	\$649,750

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### **Retiree Healthcare**

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%



# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$50,188,241</b>	<b>\$50,188,241</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2015		(4,393,977)	(4,393,977)
5. Side account earnings during 2015		1,041,943	1,041,943
<b>6. Side account as of December 31, 2015</b> <i>(1. + 2. + 3. + 4. + 5.)</i>		<b>\$46,835,207</b>	<b>\$46,835,207</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$46,835,207	\$50,188,241
Side Account 2	0	0
Side Account 3	0	0
<b>Total</b>	<b>\$46,835,207</b>	<b>\$50,188,241</b>

## 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, 2015	December 31, 2014
1. Total side account	\$46,835,207	\$50,188,241
2. Combined valuation payroll	87,487,849	81,744,080
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(5.63%)	(6.07%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.

## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.



September 2016

Falls City School District/3887  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
Falls City School District/3887

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 determining 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.



September 2016  
Falls City School District/3887

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee'.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau'.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Falls City School District -- #3887**

September 2016

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# Executive Summary

Milliman has prepared this report for Falls City School District to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Falls City School District.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Falls City School District***

	Payroll		
	Tier 1/Tier 2	OPSRP	
		General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(20.61%)	(20.61%)	(20.61%)
<b>Net pension contribution rate</b>	<b>6.09%</b>	<b>0.83%</b>	<b>5.60%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>6.59%</b>	<b>1.26%</b>	<b>6.03%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.



# Executive Summary

## Accounting Information (continued)

### ***Retiree Healthcare***

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Falls City School District***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$2,896,305	\$1,981,033
Allocated pooled OPSRP UAL	157,859	95,931
Side account	2,174,938	2,291,397
Net unfunded pension actuarial accrued liability	879,226	(214,433)
Combined valuation payroll	1,110,399	839,134
Net pension UAL as a percentage of payroll	79%	(26%)
Calculated Side Account Rate Relief	(20.61%)	(26.99%)
Allocated Pooled RHIA UAL	\$5,392	\$6,670

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### **Retiree Healthcare**

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%

# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$2,291,397</b>	<b>\$2,291,397</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2015		(163,129)	(163,129)
5. Side account earnings during 2015		47,670	47,670
<b>6. Side account as of December 31, 2015</b> <b>(1. + 2. + 3. + 4. + 5.)</b>		<b>\$2,174,938</b>	<b>\$2,174,938</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$2,174,938	\$2,291,397
Side Account 2	0	0
Side Account 3	0	0
<b>Total</b>	<b>\$2,174,938</b>	<b>\$2,291,397</b>

## 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, 2015	December 31, 2014
1. Total side account	\$2,174,938	\$2,291,397
2. Combined valuation payroll	1,110,399	839,134
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(20.61%)	(26.99%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### *Changes in Actuarial Methods and Allocation Procedures*

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### *Changes in Assumptions*

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.



## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.

September 2016

Fern Ridge School District/3494  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
Fern Ridge School District/3494

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 determining 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.



September 2016  
Fern Ridge School District/3494

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee'.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau'.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Fern Ridge School District -- #3494**

September 2016



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### ***Employer Rates Effective July 1, 2017 for Fern Ridge School District***

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Normal cost rate	13.28%	8.02%	12.79%
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OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(13.24%)	(13.24%)	(13.24%)
<b>Net pension contribution rate</b>	<b>13.46%</b>	<b>8.20%</b>	<b>12.97%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>13.96%</b>	<b>8.63%</b>	<b>13.40%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.

# Executive Summary

## Accounting Information (continued)

### **Retiree Healthcare**

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Fern Ridge School District***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$15,760,469	\$13,965,455
Allocated pooled OPSRP UAL	859,000	676,275
Side account	7,601,744	8,076,232
Net unfunded pension actuarial accrued liability	9,017,725	6,565,498
Combined valuation payroll	6,042,322	5,915,544
Net pension UAL as a percentage of payroll	149%	111%
Calculated Side Account Rate Relief	(13.24%)	(13.49%)
Allocated Pooled RHIA UAL	\$29,339	\$47,020

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### **OPSRP**

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### **Retiree Healthcare**

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%



# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$8,076,232</b>	<b>\$8,076,232</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2015		(641,128)	(641,128)
5. Side account earnings during 2015		167,639	167,639
<b>6. Side account as of December 31, 2015</b> <b>(1. + 2. + 3. + 4. + 5.)</b>		<b>\$7,601,744</b>	<b>\$7,601,744</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$7,601,744	\$8,076,232
Side Account 2	0	0
Side Account 3	0	0
<b>Total</b>	<b>\$7,601,744</b>	<b>\$8,076,232</b>

## 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, 2015	December 31, 2014
1. Total side account	\$7,601,744	\$8,076,232
2. Combined valuation payroll	6,042,322	5,915,544
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(13.24%)	(13.49%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.

## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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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.



September 2016

Forest Grove School District/4313  
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, 2015. The attached report, which is an informational supplement to the system-wide report, provides you with employer-specific contribution rates that will become effective July 1, 2017. 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 report reflects the benefit provisions in effect as of December 31, 2015. The full development of the valuation results for the Tier 1/Tier 2 School District Pool, OPSRP, and the Retiree Health Insurance Account (RHIA) 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](mailto: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,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at [www.oregon.gov/PERS/Pages/section/financial\\_reports/financials.aspx](http://www.oregon.gov/PERS/Pages/section/financial_reports/financials.aspx).



September 2016  
Forest Grove School District/4313

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 determining 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.



September 2016  
Forest Grove School District/4313

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,

A handwritten signature in black ink, appearing to read 'Matt Larrabee'.

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

A handwritten signature in black ink, appearing to read 'Scott Preppernau'.

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



# **ACTUARIAL VALUATION REPORT DECEMBER 31, 2015**

## **OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM**

**SCHOOL DISTRICT POOL**

**Forest Grove School District -- #4313**

September 2016

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# Executive Summary

Milliman has prepared this report for Forest Grove School District to:

- Provide summary December 31, 2015 valuation results for the Tier 1/Tier 2 School District Pool, Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance Account (RHIA),
- Provide employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific information on side accounts as of December 31, 2015, 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 School District Pool, OPSRP, and RHIA. The full development of these results can be found in the December 31, 2015 system-wide actuarial valuation report. This report develops employer-specific side account rates and applies the results from the system-wide valuation to Forest Grove School District.

## Employer Contribution Rates

The following table summarizes the employer contribution rates effective July 1, 2017 through June 30, 2019 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.

### ***Employer Rates Effective July 1, 2017 for Forest Grove School District***

	Payroll		
	Tier 1/Tier 2	OPSRP General Service	Police & Fire
<b>Pension</b>			
Normal cost rate	13.28%	8.02%	12.79%
Tier 1/Tier 2 UAL rate <sup>1</sup>	12.15%	12.15%	12.15%
OPSRP UAL rate	1.27%	1.27%	1.27%
Side account rate relief <sup>2</sup>	(8.00%)	(8.00%)	(8.00%)
<b>Net pension contribution rate</b>	<b>18.70%</b>	<b>13.44%</b>	<b>18.21%</b>
<b>Retiree Healthcare</b>			
Normal cost rate	0.07%	0.00%	0.00%
UAL rate	0.43%	0.43%	0.43%
<b>Net retiree healthcare rate</b>	<b>0.50%</b>	<b>0.43%</b>	<b>0.43%</b>
<b>Total net employer contribution rate</b>	<b>19.20%</b>	<b>13.87%</b>	<b>18.64%</b>

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.

<sup>1</sup> Includes Multnomah Fire District #10 rate.

<sup>2</sup> The side account rate relief shown may be reduced for each individual payroll such that the net pension contribution rate for that payroll does not go below 0.00%.

# Executive Summary

## Employer Contribution Rates (continued)

### ***Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2019 to June 2021 Biennium***

The rate collar limits changes in contribution rates for the rate pool, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates for the School District Pool first effective as of July 1, 2019, which will depend on the funded status as of December 31, 2017. If the Pool's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the Pool'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. The rates shown are before any adjustment for side account rate offsets.

For comparison, the Pool's funded status as of December 31, 2015 is 71%.

<b>Funded Status as of December 31, 2017</b>	<b>70% to 130%</b>	<b>Under 60% or Over 140%</b>
2017-2019 Normal Cost + Tier 1/Tier 2 UAL Rate	25.43%	25.43%
Minimum 2019-2021 Rate	20.34%	15.25%
Maximum 2019-2021 Rate	30.52%	35.61%

For individual school districts, the School District Pool rate is adjusted for any rate relief provided by a side account rate offset.

# 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 and is not included in this report.



# Executive Summary

## Accounting Information (continued)

### ***Retiree Healthcare***

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under GASB 45. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2017 through June 30, 2019 is calculated as a part of this 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		
	Tier 1 / Tier 2	OPSRP	
		General Service	Police and Fire
July 1, 2015 to June 30, 2017	0.53%	0.45%	0.45%
July 1, 2017 to June 30, 2019	0.50%	0.43%	0.43%

In June 2015, the GASB issued Statement 75, which will replace GASB 45 and govern employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

# 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.

District-specific valuation results are only shown for districts with a side account as valuation results for districts without a side account are fully summarized by the School District Pool results, which are shown on the next page.

### ***Forest Grove School District***

	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Allocated pooled T1/T2 UAL	\$81,745,973	\$67,994,519
Allocated pooled OPSRP UAL	4,455,439	3,292,626
Side account	23,833,313	25,768,912
Net unfunded pension actuarial accrued liability	62,368,099	45,518,233
Combined valuation payroll	31,340,151	28,801,394
Net pension UAL as a percentage of payroll	199%	158%
Calculated Side Account Rate Relief	(8.00%)	(8.84%)
Allocated Pooled RHIA UAL	\$152,177	\$228,930

*In the above exhibit, UAL amounts for the various pools (School District Tier 1/Tier 2 Pension, OPSRP, and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. This allocation differs from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.*

# Executive Summary

## Principal Valuation Results (continued)

### *School District Pool*

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$209.7	\$223.1
Tier 1/Tier 2 valuation payroll	1,578.8	1,626.0
Normal cost rate	13.28%	13.72%
Actuarial accrued liability	\$27,670.7	\$27,059.9
Actuarial asset value	19,687.3	20,277.9
Unfunded actuarial accrued liability	7,983.4	6,782.0
Funded status	71%	75%
Combined valuation payroll	\$3,060.7	\$2,872.7
UAL as a percentage of payroll	261%	236%
UAL rate (includes Multnomah Fire District #10)	12.15%	11.71%
Tier 1/Tier 2 Active Members		
▪ Count	28,114	30,320
▪ Average Age	52.2	51.8
▪ Average Service	18.5	17.9
▪ Average Valuation Payroll	\$56,157	\$53,626
Tier 1/Tier 2 Dormant Members		
▪ Count	12,964	13,670
▪ Average Age	55.0	54.5
▪ Average Monthly Benefit	\$988	\$1,032
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	65,030	63,492
▪ Average Age	71.9	71.6
▪ Average Monthly Benefit	\$2,143	\$2,098

# Executive Summary

## Principal Valuation Results (continued)

### OPSRP

(\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
General service normal cost	\$342.2	\$301.3
OPSRP general service valuation payroll	4,266.9	3,720.4
General service normal cost rate	8.02%	8.10%
Police and fire normal cost	\$69.9	\$59.6
OPSRP police and fire valuation payroll	546.4	462.3
Police and fire normal cost rate	12.79%	12.90%
Actuarial accrued liability	\$3,742.5	\$3,064.1
Actuarial asset value	2,389.1	2,024.6
Unfunded actuarial accrued liability	1,353.5	1,039.5
Funded status	64%	66%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	14%	11%
UAL rate	1.27%	1.01%

### Retiree Healthcare

RHIA (\$ in millions)	Actuarial Valuation as of	
	December 31, 2015	December 31, 2014
Normal cost	\$3.3	\$3.5
Tier 1 / Tier 2 valuation payroll	4,730.8	4,933.1
Normal cost rate	0.07%	0.07%
Actuarial accrued liability	\$465.6	\$468.4
Actuarial asset value	419.3	395.9
Unfunded actuarial accrued liability	46.3	72.5
Funded status	90%	85%
Combined valuation payroll	\$9,544.1	\$9,115.8
UAL as a percentage of payroll	0%	1%
UAL rate	0.43%	0.43%

# 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
<b>1. Side account as of December 31, 2014</b>	N/A	<b>\$25,768,912</b>	<b>\$25,768,912</b>
2. Deposits during 2015		N/A	
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2015		(2,465,050)	(2,465,050)
5. Side account earnings during 2015		530,450	530,450
<b>6. Side account as of December 31, 2015</b> <i>(1. + 2. + 3. + 4. + 5.)</i>		<b>\$23,833,313</b>	<b>\$23,833,313</b>

# Side Account Information

## Side Account Balances

	December 31, 2015	December 31, 2014
Side Account 1	\$23,833,313	\$25,768,912
Side Account 2	0	0
Side Account 3	0	0
<b>Total</b>	<b>\$23,833,313</b>	<b>\$25,768,912</b>

## 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, 2015	December 31, 2014
1. Total side account	\$23,833,313	\$25,768,912
2. Combined valuation payroll	31,340,151	28,801,394
3. Average amortization factor	9.504	10.118
4. Total side account rate (-1. ÷ 2. ÷ 3.) <sup>1</sup>	(8.00%)	(8.84%)

<sup>1</sup> 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.

# Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2015 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:

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization Method</i>	<p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>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.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	<p>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.</p>

## Economic Assumptions

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

<i>Net investment return</i>	7.50% compounded annually on system assets.
<i>Interest crediting</i>	<p>7.50% compounded annually on members' regular account balances.</p> <p>7.50% compounded annually on members' variable account balances.</p>
<i>Consumer price inflation</i>	2.50% per year.
<i>Future general wage inflation</i>	3.50% per year.
<i>Healthcare cost inflation</i>	Ranging from 6.3% in 2016 to 4.4% in 2094.
<i>Administrative Expenses</i>	<p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p>

# Brief Summary of Actuarial Methods and Assumptions

## Changes Since Last Valuation

The key changes since the December 31, 2014 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

### ***Changes in Actuarial Methods and Allocation Procedures***

There were no changes in actuarial methods and allocation procedures since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide valuation report.

### ***Changes in Assumptions***

There were no changes in assumptions since the December 31, 2014 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide valuation report.



## Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions occurred since the December 31, 2014 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.

# 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.

# 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.

## **Statement No. 75 of the Governmental Accounting Standards Board (GASB 75)**

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions for fiscal years beginning after June 15, 2017.

## **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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