OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

TIER 1/TIER 2 AND OPSRP PENSION BENEFITS
RHIA/RHIPA RETIREE MEDICAL BENEFITS

December 31, 2014 Actuarial Valuation

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November 12, 2015

Retirement Board
Oregon Public Employees Retirement System

Dear Members of the Board,

As part of our engagement with the Board, we performed an actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2014. Our findings are set forth in this actuarial valuation report. This report reflects the benefit provisions in effect as of December 31, 2014, including the Oregon Supreme Court decision in *Moro v. State of Oregon* discussed within the report.

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.

This 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 the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

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 herein in September 2015.

Some of the actuarial computations presented in this report are for purposes of determining the contribution rates effective from July 2015 to June 2017 for System employers. Other actuarial computations presented in this report under GASB Statements No. 43 and 45 are for purposes of assisting the System and participating 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 as summarized in this report, and of GASB Statements No. 43 and 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.

Milliman's work is prepared solely for the use and benefit of the Oregon Public Employees Retirement System.

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

The consultants who worked on this assignment are 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.

Sincerely,

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

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

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Executive Summary

Executive Summary

Milliman prepared this report for the Oregon Public Employees Retirement System to:

- Present Milliman's actuarial estimates of the system-wide liabilities and expenses of the Oregon Public Employees Retirement System (PERS), including pension benefits provided through Tier 1/Tier 2 and the Oregon Public Service Retirement Plan (OPSRP), and retiree medical benefits provided through the Retiree Health Insurance Account (RHIA) and the Retiree Health Insurance Premium Account (RHIPA), as of December 31, 2014 for PERS to incorporate, as PERS deems appropriate, in its financial statements; and
- Provide information on advisory system-wide average employer contribution rates and employer contribution rates for the School District rate pool and the State and Local Government Rate Pool (SLGRP) calculated as of December 31, 2014.

This valuation does not cover the defined contribution Individual Account Program (IAP). Except where otherwise explicitly noted, contribution rates in this valuation do not include contributions to the IAP. In addition, the valuation does not include an allowance for employer debt service payments on pension obligation bonds.

Projected Benefit Payments and the Fundamental Cost Equation

The actuarial liabilities contained in this report are calculated from a projection of benefit payments. This projection reflects the current plan provisions, assumptions, and demographic information documented herein. The stream of projected future benefit payments is converted to a net present value as of the valuation date based on the valuation's investment return assumption, which currently is 7.50%. The total net present value is then assigned to past, present, and future service according to the actuarial cost method. The portion assigned to the past is called the **actuarial accrued liability**[1], while the portion assigned to the current year is referred to as the **normal cost**.

Actuarial valuations provide a tool for measuring a System's progress towards funding its benefit obligations and adjusting budgeted contributions as appropriate to reflect changing circumstances. Even though they affect actuarial funded status and contribution rate calculations, assumptions regarding plan investment returns and participant experience do not affect the ultimate long-term cost of the program, which is governed by the **fundamental cost equation**:

Benefits + Expenses = Contributions + Investment Earnings

From a plan funding perspective, contributions are the balancing item in the equation. To the extent actual plan investment earnings underperform compared to assumption, contributions must increase to fund the defined level of benefits; if investments outperform the assumption, contributions can decrease.

Legislative and Actuarial Changes

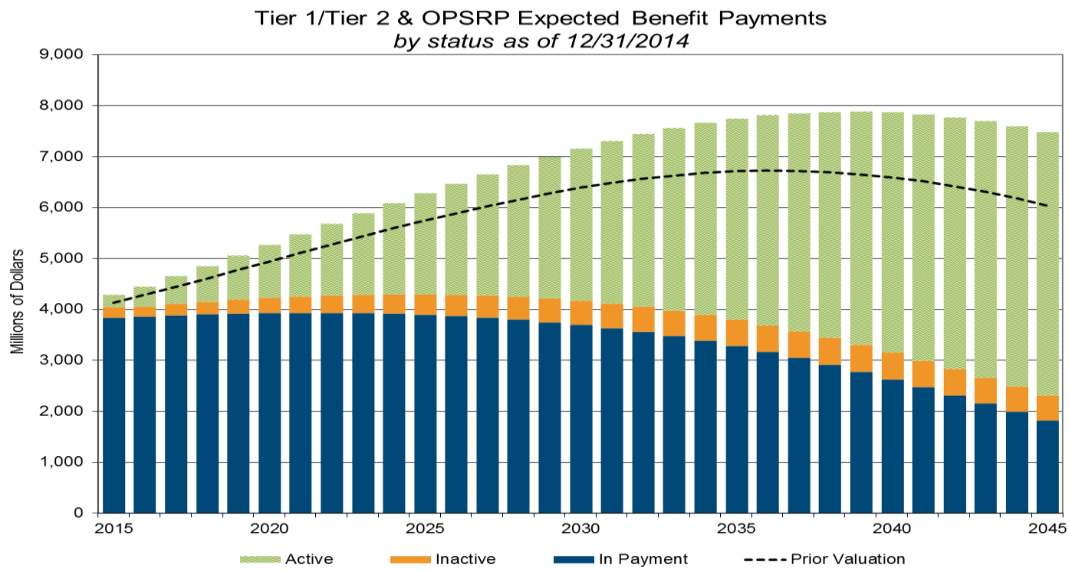
The results shown in this valuation reflect significant changes in both plan provisions and actuarial assumptions since the December 31, 2013 valuation.

The Oregon Supreme Court decision in *Moro v. State of Oregon*, issued on April 30, 2015, reversed a significant portion of the reductions the 2013 Oregon Legislature made to future system Cost of Living Adjustments (COLA) through Senate Bills 822 and 861. This reversal increased the benefits projected to be paid compared to those developed in the prior actuarial valuation, and consequently increased plan liabilities.

[1] *Bolded terms from the Executive Summary are defined in the report glossary.*

In accordance with statute, in 2015 Milliman worked with the PERS Board to complete a biennial review of actuarial methods and assumptions to be used for the December 31, 2014 and December 31, 2015 valuations. After completion of this review, the PERS Board adopted several assumption changes, most notably lowering the investment return assumption to 7.50% and updating the mortality assumption to reflect longer anticipated life expectancy.

The graph below illustrates projected benefit payments from the System calculated in both the current and prior valuation, organized by member status as of the actuarial valuation date. The graph includes the estimated effects on projected benefits of anticipated future service by current active members, including the assumed effects of future salary increases. The graph does not include expected benefit payments for members hired after the valuation date. The dotted line illustrates the shape of the graph from the prior valuation. The significant increase between current and prior valuations is evidence of the increase in projected benefits driven primarily by the *Moro* decision.



Employer Contribution Rates

Pension Contribution Rates

This report presents system average employer contribution rates calculated as of December 31, 2014. These rates are advisory only. The December 31, 2015 valuation will determine employer contribution rates that will be presented for PERS Board adoption to be first effective on July 1, 2017. The December 31, 2013 valuation presented the employer contribution rates that were adopted by the PERS Board for July 1, 2015 through June 30, 2017.

Employer pension contribution rates consist of a normal cost rate and a rate to amortize the Unfunded Accrued Liability (UAL). Normal cost rates are calculated and charged separately to the Tier 1/Tier 2, OPSRP general service and OPSRP police and fire payrolls. UAL rates are calculated separately for Tier 1/Tier 2 and OPSRP, but each UAL rate so developed is then charged across all payrolls. Rates for individual employers are adjusted if the employer maintains a side account or has a **pre-SLGRP liability or surplus**. The table below compares the average employer contribution rates for each type of payroll calculated for this valuation compared to the rates in effect from July 1, 2015 through June 30, 2017.

Collared Pension Contribution Rates (Excludes IAP)						
	Advisory July 1, 2017			Effective July 1, 2015		
Payroll	Tier 1/Tier 2	OPSRP General Service	OPSRP Police & Fire	Tier 1/Tier 2	OPSRP General Service	OPSRP Police & Fire
Normal Cost Rate	15.41%	8.10%	12.90%	13.18%	7.33%	11.44%
Tier 1/Tier 2 UAL Rate[1]	7.43%	7.43%	7.43%	5.91%	5.91%	5.91%
OPSRP UAL Rate	1.01%	1.01%	1.01%	0.61%	0.61%	0.61%
Total Pension Rate	**23.85%**	**16.54%**	**21.34%**	**19.70%**	**13.85%**	**17.96%**
Average Adjustment[2]	(6.84%)	(6.84%)	(6.84%)	(6.85%)	(6.85%)	(6.85%)
Net Pension Rate	**17.01%**	**9.70%**	**14.50%**	**12.85%**	**7.00%**	**11.11%**

1. Includes Multnomah Fire District #10

2. Adjustments shown are for side accounts and pre-SLGRP liabilities and are shown on system-wide average basis. For this purpose, adjustments are not assumed to be limited when an individual employer reaches a 0% contribution rate.

Normal cost and UAL rates calculated in this valuation both increased compared to the contribution rates calculated in the December 31, 2013 valuation, which produced rates effective July 1, 2015. This is primarily due to changes in projected plan benefits as an outcome of the *Moro* decision, along with the effect of a lower investment return assumption and increased assumption for the life expectancies of members.

Pension contribution rates differ for each Tier 1/Tier 2 rate pool. This report calculates the specific rates for each rate pool. Tier 1/Tier 2 rates for independent employers (employers that do not participate in a Tier 1/Tier 2 rate pool) are calculated in separate reports for each employer. Changes from biennium to biennium in pension contribution rates for each rate pool (or independent employer) are confined to a **rate collar** depending on **funded status**. The table below shows the employer pension contribution rates for each Tier 1/Tier 2 rate pool calculated in this valuation compared to the rates in effect as of July 1, 2015 and the average adjustment to that rate for side account rate offsets and pre-SLGRP and transition liability charges and credits.

Tier 1/Tier 2 Collared Pension Contribution Rates (Excludes IAP)				
	Advisory July 1, 2017		Effective July 1, 2015	
	SLGRP	School Districts	SLGRP	School Districts
Normal Cost Rate	16.05%	13.72%	13.66%	11.94%
Tier 1/Tier 2 UAL Rate[1]	5.83%	11.71%	4.57%	9.25%
Total Pension Rate	**21.88%**	**25.43%**	**18.23%**	**21.19%**
Average Adjustment[2]	(5.74%)	(10.61%)	(5.79%)	(10.62%)
Net Pension Rate	**16.14%**	**14.82%**	**12.44%**	**10.57%**

1. Includes Multnomah Fire District #10

2. Adjustments shown are for side accounts and pre-SLGRP liabilities and are shown on system-wide average basis. For this purpose, adjustments are not assumed to be limited when an individual employer reaches a 0% contribution rate.

The Tier 1/Tier 2 contribution rates shown here are after reflecting the effects of the rate collar. Due to the impact of the *Moro* decision and assumption changes (primarily the lower discount rate and increased future life expectancies), both the SLGRP and the School District rate pool have calculated advisory "before collar" contribution rates that, if implemented, would exceed the maximum rate increase allowed by the collar. The impact of the adjustment for each rate pool is shown below. The contribution rate increases deferred by the rate collar will be reflected in future rate-setting periods. In other words, if all assumptions are met, in addition to the increases effective for the July 1, 2017 to June 30, 2019 biennium illustrated in this report on an advisory basis, we would expect additional increases in the July 1, 2019 to June 30, 2021 biennium.

Collar Impact on Tier 1/Tier 2 Pension Contribution Rates Advisory July 1, 2017		
	SLGRP	**School Districts**
Total Pension Rate Before Collar	28.14%	31.26%
Collar Adjustment	(6.26%)	(5.83%)
Total Pension Rate After Collar	**21.88%**	**25.43%**
Average Adjustment	(5.74%)	(10.61%)
Net Pension Rate	**16.14%**	**14.82%**

Retiree Healthcare Contribution Rates

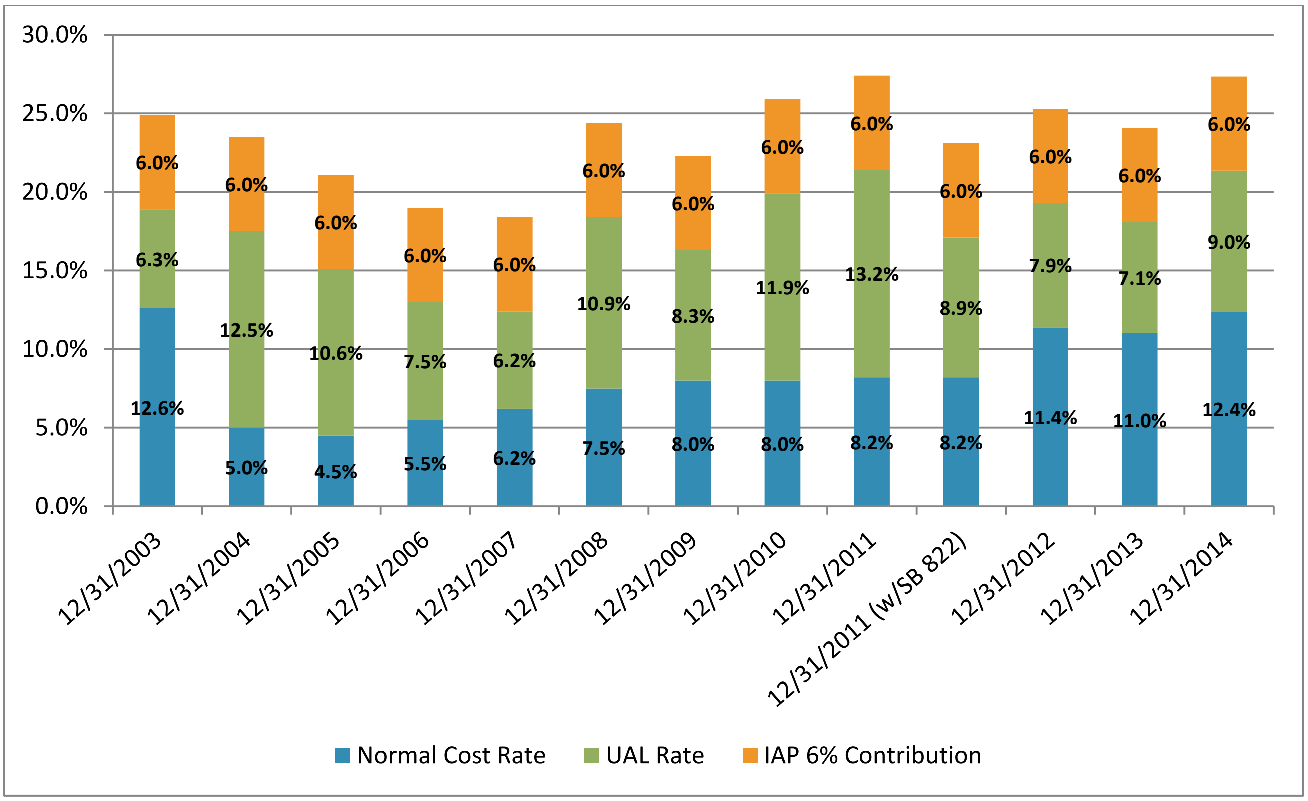
In addition to the pension contribution rates, all employers also contribute to the Retirement Health Insurance Account (RHIA). Further, State Agencies and State Judiciary contribute to the Retiree Health Insurance Premium Account (RHIPA). Only Tier 1 and Tier 2 members are eligible for these benefits, so the normal cost rates are only charged to Tier 1/Tier 2 payroll, but the UAL rates are charged to all payrolls. For each type of payroll used in this valuation the table below compares the advisory employer contribution rates calculated in this valuation to the rates in effect from July 1, 2015 through June 30, 2017. The funded status for both retiree healthcare programs has historically lagged those of the defined benefit pension programs. In response to this, the UAL on the retiree healthcare programs is amortized over a ten-year period, which is shorter than the pension program amortization periods, in an effort to more rapidly improve funded status.

Retiree Healthcare Contribution Rates					
	Advisory July 1, 2017			Effective July 1, 2015	
Payroll	**Tier 1/Tier 2**	**OPSRP General Service**	**OPSRP Police & Fire**	**Tier 1/Tier 2**	**OPSRP General Service**
RHIA Normal Cost Rate	0.07%	0.00%	0.00%	0.08%	0.00%
RHIA UAL Rate	0.43%	0.43%	0.43%	0.45%	0.45%
Total RHIA rate	**0.50%**	**0.43%**	**0.43%**	**0.53%**	**0.45%**
RHIPA Normal Cost Rate	0.11%	0.00%	0.00%	0.09%	0.00%
RHIPA UAL Rate	0.39%	0.39%	0.39%	0.35%	0.35%
Total RHIPA rate	**0.50%**	**0.39%**	**0.39%**	**0.44%**	**0.35%**

Combined Pension and Retiree Healthcare Contribution Rates

The system-wide average combined pension and retiree healthcare contribution rates are shown below for each valuation since December 31, 2003. As shown below, the average normal cost rate declined dramatically after the 2003 valuation, primarily due to the change in the actuarial cost method from entry age normal (EAN) to projected unit credit (PUC) made in the December 31, 2004 valuation. The PUC method allocates benefits projected to be paid under the Money Match formula to past service with a 0% normal cost allocation to current year service. As additional long-service Tier 1 members retired under the Money Match formula, the normal cost rate gradually increased over the subsequent valuations. A change back to EAN in the December 31, 2012 valuation increased the normal cost rate, as the EAN method allocates a portion of benefits projected to be paid under the Money Match formula to current year service. The system-wide average normal cost rate is now expected to drift down gradually in the future toward the OPSRP normal cost rate (currently 8.63%) as new OPSRP members replace retiring Tier 1 and Tier 2 members. The OPSSP normal cost rate is expected to increase slowly over time due to anticipated improvements in life expectancy. The normal cost and UAL rates have increased since the prior rate-setting valuation at December 31, 2013, due to the *Moro* decision and the assumption changes described above. The increase to the collared UAL rate resulting from those changes was significantly mitigated by the application of the rate collar which, if all assumptions are met, will defer portions of those actuarially determined increases to subsequent biennia.

System-Wide Average Collared Base Contribution Rates – Combined Pension and Retiree Healthcare



For an individual employer, base pension rates are adjusted for side accounts rate offsets to develop net pension rates paid by the employer. Side accounts are the result of employer supplemental deposits, typically financed through a pension obligation bond. When a supplemental deposit is made, a side account is established (after any transition liabilities related to joining the SLGRP have been paid) and used to offset the otherwise required contribution. As of December 31, 2014, the system has approximately $5.9 billion in unamortized side accounts, which is about the same as the last year. Side accounts now reduce the average advisory employer contribution rate by 6.37% of payroll, but there is wide variation between employers.

For individual employers in the SLGRP, the rates shown above are also adjusted for amortization payments on pre-SLGRP liabilities. The average adjustment to individual employer rates due to side accounts and pre-SLGRP liabilities is shown on a combined basis in the table on page 3.

Limits on Future Pension Contribution Rates

The minimum and maximum rates that can be effective July 1, 2017 for each Tier 1/Tier 2 rate pool (prior to adjustments) are shown in the table below. The limits are calculated and applied on an individual employer basis for independent employers. The contribution rates for individual employers are adjusted from the rates of the pool to reflect side account rate offsets, charges or credits for pre-SLGRP liabilities, and adjustments to the normal cost rates of SLGRP employers to reflect the employer's ratio of general service to police and fire payroll. These adjustments are not limited by the rate collar.

The size of the rate collar depends on the funded status of a rate pool or employer. When funded status is less than 60 percent or above 140 percent, the size of the rate collar is twice the size of the "single collar" that applies when funded status is between 70 percent and 130 percent. The rate collar provides a graded schedule between the single and double rate collars if the funded status, excluding side accounts, is between 60% and 70% or 130% and 140%.

Limits on Future Pension Contribution Rates

	Effective July 1, 2017	
	Tier 1/Tier 2	
	SLGRP	School Districts
Between 70% and 130% Funded		
Minimum Rate	14.58%	16.95%
Maximum Rate	21.88%	25.43%
Less than 60% or Greater than 140% Funded		
Minimum Rate	10.93%	12.71%
Maximum Rate	25.53%	29.67%

For Rate Pools funded between 60% and 70% or between 130% and 140% the limits vary linearly between the rates shown above.

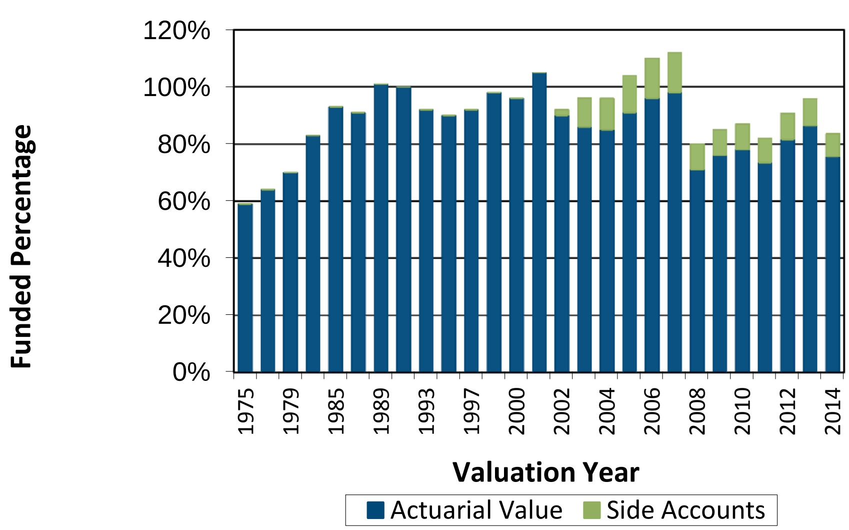
Funded Status

The table below shows the funded status of the various pension rate pools both on the basis used to calculate the contribution rate for each rate pool and after adjustment for side accounts (assuming side accounts offset Tier 1/Tier 2 liabilities). For this exhibit, all independent employers, including State Judiciary, have been grouped together.

	SLGRP	School Districts	Independent Employers	OPSRP	Pension System Totals[1]
December 31, 2014					
Actuarial accrued liability	$ 37,169.9	$ 27,059.9	$ 6,104.9	$ 3,064.1	$ 73,458.9
Actuarial value of assets	$ 28,465.3	$ 20,277.9	$ 4,871.0	$ 2,024.6	$ 55,518.2
Funded status	**76.6%**	**74.9%**	**79.8%**	**66.1%**	**75.6%**
Side accounts	$ 2,697.2	$ 3,083.3	$ 96.4	$ -	$ 5,876.9
Funded status reflecting side accounts	**83.8%**	**86.3%**	**81.4%**	**66.1%**	**83.6%**
December 31, 2013					
Actuarial accrued liability	$ 31,738.8	$ 23,392.6	$ 5,164.3	$ 2,243.3	$ 62,593.6
Actuarial value of assets	$ 27,855.3	$ 19,967.8	$ 4,757.2	$ 1,630.2	$ 54,090.1
Funded status	**87.8%**	**85.4%**	**92.1%**	**72.7%**	**86.4%**
Side accounts	$ 2,734.9	$ 3,095.4	$ 93.8	$ -	$ 5,924.0
Funded status reflecting side accounts	**96.4%**	**98.6%**	**93.9%**	**72.7%**	**95.9%**
Amounts in millions					

[1] *Includes Multnomah Fire District #10*

As shown in the graph below, the funded status of the system generally improved until the market decline of 2000-2002. Funded status generally improved for several years due to better than expected investment returns until 2008, when it decreased significantly due to investment losses. The funded status improved through the December 31, 2013 valuation due to legislative changes in plan provisions and investment gains during 2012 and 2013. The funded status declined in this December 31, 2014 valuation due to the combined effects of the *Moro* decision and the assumption changes described above.



The retiree medical benefits are funded using a 401(h) account within the pension trust. The table below shows the funded status of the retiree medical programs. The funded status of the RHIA program improved since the prior valuation due to the investment gains and favorable demographic experience. The funded status of the RHIPA program improved since the prior valuation in part due to the increase in RHIPA contribution rates effect July 1, 2013, which reversed the program's negative cash flow.

	December 31, 2014			December 31, 2013		
	RHIA	RHIPA	Total	RHIA	RHIPA	Total
Actuarial accrued liability	$468.4	$70.5	$538.9	$473.6	$61.2	$534.7
Actuarial value of assets	$395.9	$7.2	$403.1	$353.5	$5.2	$358.8
Funded status	**84.5%**	**10.2%**	**74.8%**	**74.7%**	**8.6%**	**67.1%**
Amounts in millions						

Asset Changes

Since December 31, 2013, contributions (including supplemental deposits but excluding side account rate offset transfers) for pension benefits have increased assets by 1.6% while benefit payments decreased assets by about 6.3%. On the whole, assets increased by 2.2% due to investment returns of approximately 7.2%.

All Reserves	Amount	Percentage of 12/31/2013 Market Value
Market value, December 31, 2013	**$ 62,522.2**	
Contributions	1,006.8	1.6%
Investment Income	4,332.3	6.9%
Benefit Payments	(3,942.3)	(6.3%)
Market value, December 31, 2014	**$ 63,919.1**	**102.2%**
Amounts in millions		

The Tier 1 Rate Guarantee Reserve that is used to pay for the interest crediting rate guarantee on active Tier 1 member accounts when actual investment earnings are below the assumed rate has improved from a reserve of $434 million as of December 31, 2013 to a reserve of $446 million as of December 31, 2014 due to investment performance and Tier 1 retirement patterns in 2014. Tier 1 active member accounts that are linked to the Rate Guarantee Reserve decreased from $6.0 billion on December 31, 2013 to $5.9 billion on December 31, 2014 due to retirements during the year of some Tier 1 active members.

Market values are reported to Milliman by PERS. It is our understanding that the December 31 market values of select real estate and private equity investments are reported on a three-month lag basis. This valuation report does not attempt to quantify any such effects.

Liability Changes

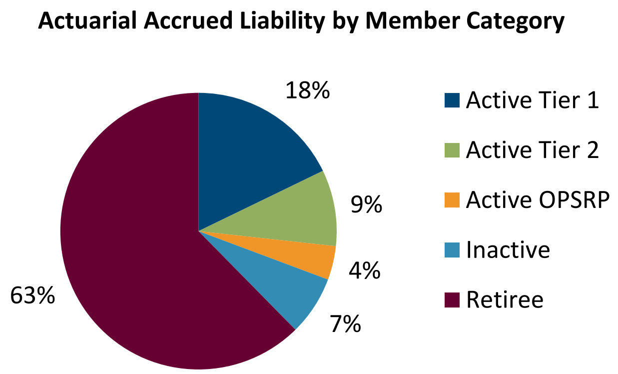
Since December 31, 2013, the system-wide actuarial accrued liability has increased primarily due to the *Moro* decision and assumption changes, along with interest on the liability as current active members get closer to retirement. The normal cost, or the present value of projected future benefits for active members allocated to that year of service, was about one-quarter of the value of benefits paid out during the year. The remaining 0.5% increase in the actuarial accrued liability was attributable to "other" demographic experience, which includes both actual experience differing from assumption and the effect of new members joining the system during the year.

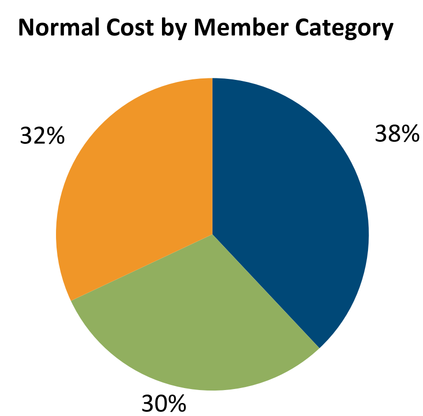
	Amount	Percentage of 12/31/2013 AAL
Actuarial Accrued Liability, December 31, 2013	**$ 63,128.4**	
Normal Cost	954.3	1.5%
Benefit Payments	(3,942.3)	(6.2%)
Interest	4,776.7	7.6%
Assumption & Method Changes	3,662.8	5.8%
Plan Changes	5,097.7	8.1%
Other	320.3	0.5%
Actuarial Accrued Liability, December 31, 2014	**$ 73,997.8**	**117.2%**
Amounts in millions		

The Oregon Public Employees Retirement System is a very mature system. There are currently 1.25 active members in the system for every annuitant (including retired members and beneficiaries). By comparison, the average ratio in NASRA's 2013 Public Fund Survey is 1.54. Since contributions to the system are based on active payroll, a lower ratio means there are fewer active member payroll dollars to support any gains or losses, such as for investment experience varying from assumption, in comparison to other systems. The ratio of active members to annuitants may decline further as a significant portion of the active members are currently eligible to retire.

The left-hand chart below illustrates the distribution of the system's actuarial accrued liability by member pension tier and status. While the majority of active liability is attributable to Tier 1 members, 70% of the system's total actuarial accrued liability is due to members who are no longer actively working in covered employment. Only 13% of the liability is attributable to active Tier 2 and OPSRP members. Of the actuarial accrued liability that is attributable to actives, a large portion is located at or near prime retirement ages.

The right-hand chart below illustrates the distribution of the system's normal cost. Tier 2 members account for 30% of the system's normal cost compared to about 9% of the system's actuarial accrued liability. OPSRP members account for nearly a third of the normal cost compared to just 4% of the actuarial accrued liability.

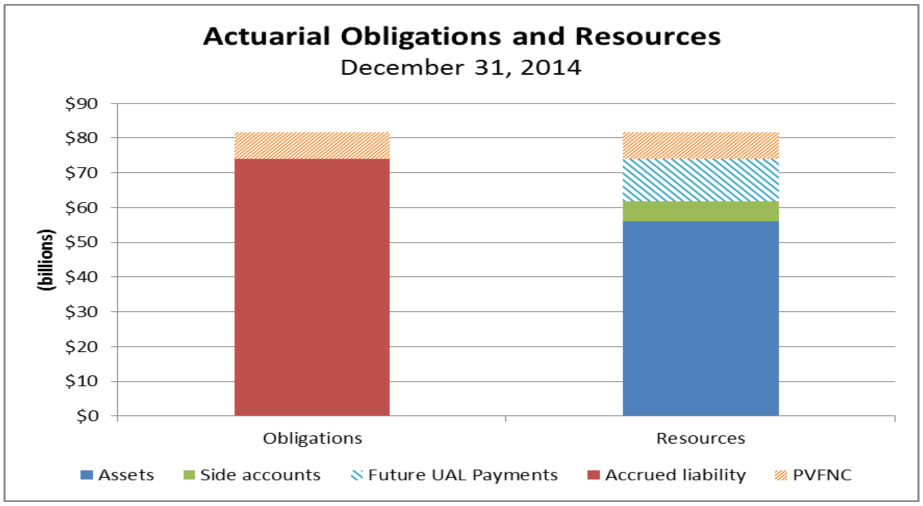




Actuarial Obligations and Resources

The actuarial accrued liability discussed above is the present value of benefits assigned to past service. The total actuarial present value of benefits is a broader measure that reflects both the actuarial accrued liability and the present value of future normal cost (PVFNC) for current members. Conceptually, this can be thought of as the total expected benefit obligation, in today's dollars, associated with members as of the valuation date for service throughout their working careers. As of December 31, 2014, the total actuarial present value of benefits for the system was $81.6 billion.

The resources to fund this expected obligation include assets the system has set aside as of the valuation date, plus the present value of expected future normal cost and UAL payments. By definition, the resources and obligations are equal in this "actuarial balance sheet", as shown in the graph below.



Contributions to future normal costs and UAL payments are made as a percent of subject member salary, known as valuation payroll. The table below shows the amount of projected salary in the year following the valuation date as well as the present value of all future projected salary amounts for members included in the valuation.

($ in millions)	Valuation Payroll Next Year	Present Value of Future Valuation Payroll[1]
Tier 1/Tier 2	$ 4,933.1	$ 31,750.2
OPSRP General Service	3,720.4	34,559.8
OPSRP Police & Fire	462.3	5,753.4
Total	**$ 9,115.8**	**$ 72,063.4**

1. For members as of the valuation date.

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 after the summary. **Combined valuation payroll** includes Tier 1/Tier 2 payroll and OPSRP payroll.

	Actuarial Valuation as of December 31, 2014	Actuarial Valuation as of December 31, 2013	Percent Change
Tier 1/Tier 2 Pension			
Actuarial accrued liability	$ 70,394.8	$ 60,350.3	17%
Actuarial value of assets	$ 53,493.6	$ 52,459.9	2%
Unfunded actuarial accrued liability	$ 16,901.2	$ 7,890.4	114%
Funded status	76%	87%	
UAL as a percentage of payroll	185%	91%	
Normal cost	$ 760.2	$ 668.7	14%
Tier 1/Tier 2 valuation payroll	$ 4,933.1	$ 5,073.7	(3%)
Normal cost rate	15.41%	13.18%	
OPSRP Pension			
Actuarial accrued liability	$ 3,064.1	$ 2,243.3	37%
Actuarial value of assets	$ 2,024.6	$ 1,630.2	24%
Unfunded actuarial accrued liability	$ 1,039.5	$ 613.2	70%
Funded status	66%	73%	
UAL as a percentage of payroll	11%	7%	
Normal cost	$ 360.9	$ 280.2	29%
OPSRP valuation payroll	$ 4,182.7	$ 3,598.1	16%
Normal cost rate	8.63%	7.79%	
Combined Pension			
Actuarial accrued liability	$ 73,458.9	$ 62,593.6	17%
Actuarial value of assets	$ 55,518.2	$ 54,090.1	3%
Unfunded actuarial accrued liability	$ 17,940.7	$ 8,503.5	111%
Funded status	76%	86%	
Combined valuation payroll	$ 9,115.8	$ 8,671.8	5%
UAL as a percentage of payroll	197%	98%	
Normal cost	$ 1,121.1	$ 948.9	18%
Combined valuation payroll	$ 9,115.8	$ 8,671.8	5%
Normal cost rate	12.30%	10.94%	
Amounts in millions			

	Actuarial Valuation as of		
	December 31, 2014	December 31, 2013	Percent Change
RHIA			
Actuarial accrued liability	$ 468.4	$ 473.6	(1%)
Actuarial asset value	$ 395.9	$ 353.5	12%
Unfunded actuarial accrued liability	$ 72.5	$ 120.0	(40%)
Funded status	85%	75%	
Combined valuation payroll	$ 9,115.8	$ 8,671.8	5%
UAL as a percentage of payroll	1%	1%	
Normal cost	$ 3.5	$ 4.0	(12%)
Tier 1/Tier 2 valuation payroll	$ 4,933.1	$ 5,073.7	(3%)
Normal cost rate	0.07%	0.08%	
RHIPA			
Actuarial accrued liability	$ 70.5	$ 61.2	15%
Actuarial asset value	$ 7.2	$ 5.2	37%
Unfunded actuarial accrued liability	$ 63.3	$ 55.9	13%
Funded status	10%	9%	
Combined valuation payroll	$ 2,718.9	$ 2,531.5	7%
UAL as a percentage of payroll	2%	2%	
Normal cost	$ 1.6	$ 1.3	20%
Tier 1/Tier 2 valuation payroll	$ 1,406.3	$ 1,434.5	(2%)
Normal cost rate	0.11%	0.09%	
Amounts in millions			

Data Summary

A brief summary of the data underlying the current and prior valuations follows. As shown below, the active member count increased about 1.6%, while the system's whole population increased by about 2.2%. The data section of this report provides additional detail. State Judiciary is included in the Tier 1 counts.

	December 31, 2014				December 31, 2013
	Tier 1	Tier 2	OPSRP	Total	Total
Active Members					
Count	34,174	42,180	88,505	164,859	162,185
Average age	55.2	49.6	42.3	46.9	46.9
Average total service	23.5	14.1	5.5	11.4	11.5
Average prior year covered salary	$ 70,668	$ 61,473	$ 44,604	$ 54,323	$ 52,688
Inactive Members[1]					
Count	16,521	15,924	10,118	42,563	41,213
Average age	57.7	51.8	46.4	52.8	52.5
Average monthly deferred benefit	$ 2,052	$ 707	$ 326	$ 1,138	$ 1,135
Retired Members and Beneficiaries[1]					
Count	121,545	8,428	1,532	131,505	128,117
Average age	71.5	66.3	65.8	71.1	70.8
Average monthly benefit[2]	$ 2,548	$ 799	$ 384	$ 2,411	$ 2,365
Total members	**172,240**	**66,532**	**100,155**	**338,927**	**331,515**

1. Inactive and Retiree counts are shown by lives within the system. In other words, a member is counted once for purposes of this exhibit, regardless of their service history for different rate pools. This contrasts with the method used to count inactive participants in some of the later exhibits of this report.

2 The average monthly benefit as of December 31, 2014 reflects an estimated adjustment for the affect of the Supreme Court decision in Moro v. State of Oregon.

Effects of Changes

Effective with the December 31, 2014 actuarial valuation the following changes were made:

Assumption Changes

- Assumed investment returns were lowered to 7.50% from the previously assumed 7.75%.
- Interest crediting on regular and variable member accounts was also lowered to 7.50%.
- Assumed inflation was lowered from to 2.50% from the previously assumed 2.75%.
- The healthy mortality assumption was changed to reflect an updated mortality improvement scale for all groups.
- Termination, disability and retirement rates were updated for some groups to more closely match observed experience.
- Assumptions for merit increases, unused sick leave, and vacation pay were updated.
- An explicit assumption was added for Tier 1/Tier 2 administrative expenses.

- The assumed healthcare cost trend rates for the RHIPA program as well as the participation assumptions for both RHIA and RHIPA were updated.

Allocation Procedure Changes

- The percentages used for allocating accrued liability for Tier 1/Tier 2 active members who have earned service with multiple PERS employers were updated.

Method Changes

There were no changes to actuarial methods since the December 31, 2013 actuarial valuation.

Plan Changes

The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. According to the Court, PERS members who earned benefits before and after the effective date "will be entitled to receive during retirement a blended COLA rate that reflects the different COLA provisions applicable to benefits earned at different times." The Supreme Court did not articulate a specific methodology for determining the blended COLA. For purposes of this valuation, we have determined the blend based on creditable service earned before and after October 2013. This approach is consistent with OAR 459-005-0510 adopted by the PERS Board in September 2015.

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System-Wide Assets

System-Wide Assets

The table below reconciles the market value of assets, as provided by PERS, to the asset values used in this valuation.

	Tier 1/Tier 2	OPSRP	Side Accounts	Contingency and Capital Preservation Reserve	Rate Guarantee Reserve	RHIA and RHIPA	System Totals
Amount reported by PERS December 31, 2014	$ 54,517.1	$ 2,024.6	$ 5,876.9	$ 651.2	$ 446.0	$ 403.1	$ 63,919.0
Adjustment for Recognized Transition Liability Receivable	$ (585.2)	$ -	$ -	$ -	$ -	$ -	$ (585.2)
Adjustment for Negative Rate Guarantee Reserve	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Net Pre-SLGRP Liabilities	$ (438.3)	$ -	$ -	$ -	$ -	$ -	$ (438.3)
December 31, 2014 Actuarial Value of Assets	$ 53,493.6	$ 2,024.6	$ 5,876.9	$ 651.2	$ 446.0	$ 403.1	$ 62,895.5
Amounts in millions							

PERS calculates the amount that should be transferred from side accounts to employer reserves in Tier 1/ Tier 2 and OPSRP for rate relief on a monthly basis. PERS does not track net Pre-SLGRP liabilities.

Employer supplemental deposits establish individual side accounts within the pension trust. The side accounts are treated as prepaid contributions. Employer contribution rates are first determined excluding side accounts. Then, an amortized portion of the side account is used to offset the contribution otherwise required for the individual employers that have side accounts. While side accounts are excluded from valuation assets in determining contribution rates for each of the rate pools, side accounts are included in valuation assets for financial reporting purposes such as the reporting of funded status.

In addition, pension assets are held in the Contingency Reserve, the Capital Preservation Reserve, and the Tier 1 Rate Guarantee Reserve (RGR). As shown below, at December 31, 2014 the RGR was in surplus status of $446 million. It is possible for the RGR to be in deficit, which occurred most recently at December 31, 2012. It is our understanding that if a RGR deficit arose and then persisted for five years, employers may be required to restore the Tier 1 Rate Guarantee Reserve.

Tier 1/Tier 2 assets are adjusted by the net outstanding balance of pre-SLGRP liabilities to arrive at the actuarial value of assets. These notional employer-specific balances, created at the formation of the SLGRP and at later dates when additional employers join the pool, are treated akin to receivables to the SLGRP from individual employers (for pre-SLGRP liabilities) or payables – in the form of future rate offsets – from the SLGRP assets to individual employers (for pre-SLGRP surpluses). A recent change in accounting interpretation led PERS to recognize outstanding pre-SLGRP liabilities as receivables in the system financial statements. However, for funding purposes, future contributions associated with pre-SLGRP liabilities are not current assets of the system. The resulting adjustment for Transition Liability receivables is shown above.

Finally, assets are held in separate accounts established under Internal Revenue Code Section 401(h) (the Retirement Health Insurance Account (RHIA) and the Retiree Health Insurance Premium Account (RHIPA)) to provide retiree medical benefits.

The following table reconciles the changes in the system-wide assets from December 31, 2013 to December 31, 2014. The reconciliation of assets is provided by PERS.

Reconciliation of Pension and Retiree Healthcare Assets	Tier 1/Tier 2	OPSRP	Side Accounts	Contingency Reserve	Capital Preservation Reserve	Rate Guarantee Reserve	RHIA and RHIPA	System Totals
Additions								
1. Contributions								
a. Employer	$ 664.0	$ 271.0	$ 2.8	$ -	$ -	$ -	$ 55.8	$ 993.6
b. Transfer from side accounts[1]	$ 474.8	$ -	$ (474.8)	$ -	$ -	$ -	$ -	$ -
c. Judge member contributions	$ 1.6	$ -	$ -	$ -	$ -	$ -	$ -	$ 1.6
d. Member service purchases	$ 11.6	$ -	$ -	$ -	$ -	$ -	$ -	$ 11.6
e. Recognized transition liability receivable	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
f. Total	$ 1,152.0	$ 271.0	$ (472.0)	$ -	$ -	$ -	$ 55.8	$ 1,006.8
2. Net investment income								
a. Transfers	$ 42.5	$ -	$ -	$ (16.5)	$ -	$ (26.0)	$ -	$ (0.0)
b. From investments	$ 3,735.6	$ 138.8	$ 425.1	$ (0.0)	$ -	$ 37.8	$ 26.1	$ 4,363.5
c. Total	$ 3,778.1	$ 138.8	$ 425.1	$ (16.5)	$ -	$ 11.8	$ 26.1	$ 4,363.5
3. Other[2]	$ 5.4	$ 0.0	$ -	$ -	$ -	$ -	$ -	$ 5.4
4. Total additions	**$ 4,935.5**	**$ 409.8**	**$ (46.9)**	**$ (16.5)**	**$ -**	**$ 11.8**	**$ 82.0**	**$ 5,375.7**
Deductions								
5. Retirement and survivor benefits	$ (3,867.0)	$ (10.4)	$ -	$ -	$ -	$ -	$ (36.3)	$ (3,913.6)
6. Death Benefits	$ (10.8)	$ -	$ -	$ -	$ -	$ -	$ -	$ (10.8)
7. Refund of contributions	$ (17.9)	$ -	$ -	$ -	$ -	$ -	$ -	$ (17.9)
9. Administrative expenses	$ (30.1)	$ (5.0)	$ (0.2)	$ -	$ -	$ -	$ (1.3)	$ (36.5)
10. Total deductions	**$ (3,925.6)**	**$ (15.4)**	**$ (0.2)**	**$ -**	**$ -**	**$ -**	**$ (37.6)**	**$ (3,978.8)**
11. Net change	**$ 1,009.8**	**$ 394.4**	**$ (47.1)**	**$ (16.5)**	**$ -**	**$ 11.8**	**$ 44.4**	**$ 1,396.9**
12. Net assets held in trust for pension benefits								
a. Beginning of year	$ 53,507.3	$ 1,630.2	$ 5,924.0	$ 667.7	$ -	$ 434.2	$ 358.8	$ 62,522.2
b. End of year	**$ 54,517.1**	**$ 2,024.6**	**$ 5,876.9**	**$ 651.2**	**$ -**	**$ 446.0**	**$ 403.1**	**$ 63,919.1**
Amounts in millions								

[1] Side account transfers shown in this exhibit are all credited to Tier 1/Tier 2 assets. We understand the portion to be credited to OPSRP is credited through the employer contribution line of the exhibit.

[2] Includes TRFA transfer from Metlife and adjustments by PERS.

Reconciliation of Side Accounts

Side accounts are established for employers who make supplemental payments (a lump sum payment in excess of the required employer contribution). For SLGRP employers, this supplemental payment is first applied toward the employer's Transition Liability, and any excess is established in a Side Account. A reconciliation of the side accounts from December 31, 2013 to December 31, 2014, is shown below on a rate pool basis. For this exhibit, all independent employers are grouped together.

	SLGRP	School Districts	Independent Employers	System Totals
Side Accounts, December 31, 2013	**2,734.9**	**3,095.4**	**93.8**	**5,924.0**
Deposits during 2014	-	-	2.8	2.8
Interest	195.8	222.2	7.0	425.1
Administrative expenses	(0.0)	(0.1)	(0.0)	(0.2)
Transfers to employer reserves	(233.4)	(234.2)	(7.2)	(474.8)
Side Accounts, December 31, 2014	**2,697.2**	**3,083.3**	**96.4**	**5,876.9**
Amounts in millions				

Development of Side Account Rate Relief

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 on or before December 31, 2009, the fixed period ends December 31, 2027. For side accounts established later, the fixed period ends 18 years after the first rate-setting valuation following its creation. The table below shows the average rate relief attributable to side accounts for each rate pool.

	December 31, 2014			
	SLGRP	School Districts	Independent Employers	System Totals
1. Side Account	$ 2,697.2	$ 3,083.3	$ 96.4	$ 5,876.9
2. Combined valuation payroll	$ 5,390.8	$ 2,872.7	$ 852.2	$ 9,115.8
3. Average Amortization Factor[1]	10.125	10.120	10.222	10.124
4. Average Side Account Rate Relief (1. ÷ 2. ÷ 3.)	4.94%	10.61%	1.11%	6.37%
Amounts in millions				

[1] *Weighted average*

Pension Plan Valuation

Tier 1/Tier 2 Pension Assets

Summary of Actuarial Value of Assets

This section summarizes the current Tier 1/Tier 2 pension valuation assets as of the current and prior actuarial valuation. For valuation purposes, pension assets are divided among the State & Local Government Rate Pool (SLGRP), the School District Pool, and various independent employers to determine employer contribution rates. For this system-wide report, all independent employers, including State Judiciary, have been grouped together as if they were a rate pool.

	SLGRP	School Districts	Independent Employers	Tier 1/Tier 2 Totals[1]
December 31, 2014				
Member reserves	$ 4,092.9	$ 2,253.1	$ 604.2	$ 6,950.4
Employer reserves	13,013.9	8,039.7	2,309.5	23,211.4
Benefit in force reserves	11,796.8	9,985.1	1,957.3	23,770.1
Net outstanding pre-SLGRP liabilities	(438.3)			(438.3)
Total actuarial value of assets	**$ 28,465.3**	**$ 20,277.9**	**$ 4,871.0**	**$ 53,493.6**
December 31, 2013				
Member reserves	$ 4,167.2	$ 2,337.9	$ 614.9	$ 7,120.1
Employer reserves	12,170.2	7,330.9	2,167.9	21,514.6
Benefit in force reserves	11,958.8	10,299.1	1,974.5	24,266.1
Net outstanding pre-SLGRP liabilities	(440.9)			(440.9)
Total actuarial value of assets	**$ 27,855.3**	**$ 19,967.8**	**$ 4,757.2**	**$ 52,459.9**
Amounts in millions				

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

Please note that pre-SLGRP liabilities and surpluses are notional balances specific to specific employers or groups of employers. For contribution rate calculations, pre-SLGRP liabilities are treated akin to receivables to the SLGRP from the individual employers and pre-SLGRP surpluses are treated akin to payables (in the form of future rate offsets) from the SLGRP assets to individual employers. The assets of the SLGRP used to calculate the pooled contribution rate reflect the net outstanding balance of these items.

Side accounts are treated as pre-paid contributions. Consequently, they are not reflected in the actuarial value of assets shown above. The actuarial value of assets for each rate pool is used to develop the contribution rate for that pool. Side accounts are used by employers to pay a portion of the base contribution rate via a side account rate offset and deduction mechanism. The net impact of side accounts is shown in a separate section of this report.

Reconciliation of Actuarial Value of Assets

The table below shows a reconciliation of the actuarial value of assets from the prior valuation to the current valuation for each of the rate pools. Again, independent employers, including State Judiciary, are treated as if they were a single rate pool for purposes of the system-wide report.

	SLGRP	School Districts	Independent Employers	Tier 1/Tier 2 Totals[1]
Actuarial value of assets, December 31, 2013	**$ 27,855.3**	**$ 19,967.8**	**$ 4,757.2**	**$ 52,459.9**
Contributions				
Employer	$ 350.7	$ 283.1	$ 76.0	$ 709.9
Side account transfers	233.4	234.2	7.2	474.8
Member	0.0	0.0	1.6	1.6
Total contributions	584.1	517.4	84.8	1,186.3
Investment income	1,953.7	1,392.8	334.0	3,670.5
Benefit payments and expenses	(1,948.3)	(1,649.1)	(323.3)	(3,925.8)
Adjustments[2]	20.5	49.0	18.2	102.7
Actuarial value of assets, December 31, 2014	**$ 28,465.3**	**$ 20,277.9**	**$ 4,871.0**	**$ 53,493.6**
Amounts in millions				

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

[2] *Adjustments include a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, member service purchases, and other adjustments made by PERS.*

Outstanding Balance of Pre-SLGRP Liabilities

In the valuation, pre-SLGRP liabilities are treated as assets of the SLGRP. That is, a pre-SLGRP liability is treated as a receivable owed to the SLGRP by the employer. Pre-SLGRP surpluses are treated as payables from the SLGRP to employers.

Prior to the formation of the SLGRP, the State and Community Colleges were pooled together and some employers participated in the Local Government Rate Pool (LGRP). The UAL attributable to the State and Community Colleges or the LGRP at the time the SLGRP was formed is maintained separately from the SLGRP, and is reduced by contributions and increased for interest charges at the assumed interest rate.

Similarly, when an independent employer joins the SLGRP, a transition liability or surplus is calculated to ensure that each employer enters the pool on a comparable basis. The transition liability is maintained separately from the SLGRP, and is reduced by contributions and increased for interest charges at the assumed interest rate. The table below shows the reconciliation of the pre-SLGRP pooled liability attributable to the State and Community Colleges and the LGRP from the last valuation to the current valuation. It also shows the reconciliation of the total transition liability or surplus from the last valuation to the current valuation.

	State and Community Colleges	Local Government Rate Pool	Transition	Total
1. Pre-SLGRP liability/(surplus), January 1, 2014	**$ 577.5**	**$ (242.7)**	**$ (775.7)**	**$ (440.9)**
2. Employer contributions	(56.8)	22.6	68.3	34.1
3. Supplemental payments	0.0	0.0	0.0	0.0
4. Interest	40.4	(17.1)	(54.8)	(31.5)
5. Employer merger	0.0	0.0	0.0	0.0
6. Pre-SLGRP liability/(surplus), December 31, 2014 (1. + 2. + 3. + 4. + 5.)	**$ 561.1**	**$ (237.2)**	**$ (762.2)**	**$ (438.3)**
Amounts in millions				

Tier 1/Tier 2 Pension Liabilities

Normal Cost

The normal cost represents the present value of benefits allocated to the next year of service by the actuarial cost method. If all current actuarial assumptions are met in both past and future years, the normal cost represents the percent of payroll that would need to be contributed each year to fully fund plan benefits during each member's working career.

A summary of the normal cost by decrement is shown below on a system-wide basis for the Tier 1/Tier 2 pension benefits.

	December 31, 2014	December 31, 2013	Percent Change
Normal Cost			
Service Retirement	488.5	440.5	10.9%
Withdrawal	212.4	203.2	4.5%
Duty Disability	3.3	3.2	2.6%
Nonduty Disability	17.1	15.3	11.8%
Death	6.0	6.6	(9.2%)
Administrative Expenses	33.0	-	
Total Normal Cost	**760.2**	**668.7**	**13.7%**
Amounts in millions			

The increase in normal cost since the prior valuation is primarily due to the *Moro* decision and the combination of the reduction in the investment return assumption and increases in assumed future life expectancies.

The table below reconciles the normal cost from the prior valuation to the current valuation.

Reconciliation of Change in Normal Cost

	Tier 1/Tier 2 Pension
Normal Cost, December 31, 2013	**$ 668.7**
Expected increase (decrease)	(26.0)
Assumption and method changes	87.1
Plan changes	34.6
Deviations from expected experience	
Pay increases	1.4
Interest crediting experience	(0.7)
All other sources	(4.7)
Total demographic (gains) and losses	**(4.1)**
Normal Cost, December 31, 2014	**$ 760.2**
Amounts in millions	

A summary of the normal cost by tier and employment category for each rate pool is shown below. Again, independent employers, including State Judiciary, are treated as if they were a single rate pool for purposes of the system-wide report.

Summary of Pension Normal Cost by Group and Tier

	December 31, 2014				December 31, 2013	Percent Change
	SLGRP	School Districts	Independent Employers	Tier 1/ Tier 2 Totals	Tier 1/ Tier 2 Totals	
Normal Cost[1]						
Tier 1 General Service	206.4	121.7	29.7	357.8	326.7	9.5%
Tier 2 General Service	144.1	100.9	20.4	265.4	226.4	17.2%
Tier 1 Police & Fire	47.4	0.2	16.7	64.3	56.1	14.6%
Tier 2 Police & Fire	56.2	0.3	16.3	72.8	59.6	22.1%
Total Normal Cost	**454.0**	**223.1**	**83.1**	**760.2**	**668.7**	**13.7%**
Amounts in millions						

[1] *Includes assumed administrative expenses. Assumed expenses allocated pro-rata based on normal cost.*

Actuarial Accrued Liability

The actuarial accrued liability represents the present value of benefits allocated to prior years of service by the actuarial cost method. A summary of the actuarial accrued liability is shown below on a system-wide basis for the Tier 1/Tier 2 pension benefits.

	December 31, 2014	December 31, 2013	Percent Change
Active Members	**19,389.2**	**17,027.4**	**13.9%**
Inactive Members	**4,892.2**	**4,206.7**	**16.3%**
Retired Members and Beneficiaries	**46,113.5**	**39,116.2**	**17.9%**
Total Actuarial Accrued Liability	**70,394.8**	**60,350.3**	**16.6%**
Amounts in millions			

Actuarial Accrued Liability

A summary of actuarial accrued liabilities based on member status, tier and employment category is shown in the table below. For this exhibit, all independent employers, including State Judiciary, have been grouped together.

	December 31, 2014				December 31, 2013	Percent Change
	SLGRP	School Districts	Independent Employers	Tier 1 / Tier 2 Totals[1]	Tier 1 / Tier 2 Totals[1]	
Active Members						
Tier 1 General Service	6,157.0	4,189.3	782.4	11,128.8	10,187.8	9.2%
Tier 1 Police & Fire	1,354.4	4.5	499.7	1,858.8	1,608.3	15.6%
Tier 1 Total	**7,511.5**	**4,193.8**	**1,282.1**	**12,987.5**	**11,796.1**	**10.1%**
Tier 2 General Service	2,750.4	1,999.5	398.5	5,148.5	4,232.7	21.6%
Tier 2 Police & Fire	974.7	4.1	274.4	1,253.2	998.7	25.5%
Tier 2 Total	**3,725.2**	**2,003.6**	**672.9**	**6,401.6**	**5,231.3**	**22.4%**
Total Active Members	**11,236.6**	**6,197.4**	**1,955.0**	**19,389.2**	**17,027.4**	**13.9%**
Inactive Members	**3,047.7**	**1,491.7**	**352.8**	**4,892.2**	**4,206.7**	**16.3%**
Retired Members and Beneficiaries	**22,885.5**	**19,370.8**	**3,797.1**	**46,113.5**	**39,116.2**	**17.9%**
Total Tier 1/ Tier 2 Pension Liability, December 31,	**37,169.9**	**27,059.9**	**6,104.9**	**70,394.8**	**60,350.3**	**16.6%**
Amounts in millions						

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

Actuarial Accrued Liability

The change in actuarial accrued liability since the last valuation reflects the experience of the system. The table below reconciles the actuarial accrued liability from the last valuation to this valuation. The actuarial accrued liability is expected to increase due to benefits earned during the year and interest, and to decrease due to benefits paid during the year.

	Tier 1/Tier 2 Pension
Actuarial Accrued Liability December 31, 2013	**60,350.3**
Expected change	1,325.2
Assumption and method changes	3,468.0
Plan changes	5,027.0
Deviations from expected experience	
Retirements from active status	(12.7)
Disability retirements	(5.6)
Active mortality and withdrawal	40.9
Pay increases	37.3
Interest crediting experience	(18.6)
Inactive mortality	147.5
COLA experience	-
Data corrections	37.4
Other	(2.7)
Total demographic (gains) and losses	**223.5**
New Entrants	0.7
Actuarial Accrued Liability December 31, 2014	**70,394.8**
Amounts in millions	

Tier 1/Tier 2 Pension Unfunded Accrued Liability (UAL)

Calculation of UAL

The Unfunded Accrued Liability (UAL) represents the difference between the actuarial accrued liability and the valuation assets. To determine uncollared and collared base employer contribution rates, the UAL is calculated excluding side accounts. The calculated collared base contribution rate is later offset by an amortized portion of the side accounts for individual employers with such accounts. A summary of the UAL by rate pool is shown on the following table. All independent employers, including State Judiciary, have been grouped together.

	SLGRP	School Districts	Independent Employers	Tier 1 / Tier 2 Totals[1]
December 31, 2014				
1. Actuarial accrued liability	37,169.9	27,059.9	6,104.9	70,394.8
2. Actuarial value of assets	28,465.3	20,277.9	4,871.0	53,493.6
3. Unfunded accrued liability	8,704.6	6,782.0	1,233.9	16,901.2
4. Funded percentage (2. ÷ 1.)	76.6%	74.9%	79.8%	76.0%
5. Combined Valuation Payroll	5,390.8	2,872.7	852.2	9,115.8
6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.)	161.5%	236.1%	144.8%	185.4%
December 31, 2013				
1. Actuarial accrued liability	31,738.8	23,392.6	5,164.3	60,350.3
2. Actuarial value of assets	27,855.3	19,967.8	4,757.2	52,459.9
3. Unfunded accrued liability	3,883.5	3,424.8	407.1	7,890.4
4. Funded percentage (2. ÷ 1.)	87.8%	85.4%	92.1%	86.9%
5. Combined Valuation Payroll	5,121.9	2,723.5	826.4	8,671.8
6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.)	75.8%	125.7%	49.3%	91.0%
Amounts in millions				

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

Reconciliation of UAL Bases

Beginning with the December 31, 2007 actuarial valuation, each odd-year valuation has established a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. As part of the 2012 review of actuarial methods and assumptions, the PERS Board decided to reset the Tier 1/Tier 2 amortization period to 20 years effective with the December 31, 2013 valuation. This means the entire unamortized Tier 1/Tier 2 UAL for each rate pool and independent employer is re-amortized over a 20 year period as a level percentage of projected future payroll. For subsequent odd-year valuations, amortization schedules will be calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows both the progress of the amortization base established in the prior valuation and an estimate of the base to be established on December 31, 2015, with the estimate based on experience during 2014. The payment schedules for the unamortized UAL balances as of December 31, 2014, have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

The UAL amortization schedules are shown for the SLGRP and School District rate pools below. UAL bases for independent employers are developed individually for each employer, and are shown in the employer's individual valuation report.

SLGRP					
Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	3,883.5	281.1	289.4	3,891.8	291.5
December 31, 2014	N/A	N/A	N/A	4,812.8	348.2
Total	**$ 3,883.5**	**$ 281.1**	**$ 289.4**	**$ 8,704.6**	**$ 639.8**

School Districts					
Amortization Base	UAL December 31, 2013	Payment	Interest	UAL December 31, 2014	Next Year's Payment
December 31, 2013	3,424.8	247.9	255.2	3,432.1	257.1
December 31, 2014	N/A	N/A	N/A	3,349.9	242.4
Total	**$ 3,424.8**	**$ 247.9**	**$ 255.2**	**$ 6,782.0**	**$ 499.5**

Amounts in millions

Actuarial Gain or Loss since Prior Valuation

In every actuarial valuation, assumptions are made as to the future experience of the plan and covered group of participants. Whenever there is a difference between the actual experience and that anticipated by the actuarial assumptions, there is an actuarial gain or loss to the plan. Gains are the result of experience that is more financially favorable to the system than assumed (i.e., serves to reduce the unfunded accrued liability or increase the surplus), while losses are the result of financially unfavorable experience to the system.

The table below shows the development of the actuarial gain (or loss) for the Tier 1/Tier 2 pension benefits for the year ending December 31, 2013. For this exhibit, all independent employers, including State Judiciary, have been grouped together.

	December 31, 2014			
	SLGRP	School District	Independent Employers	Tier 1/Tier 2 Totals[1]
1. Expected actuarial accrued liability				
a. Actuarial accrued liability at January 1, 2014	$ 31,738.8	$ 23,392.6	$ 5,164.3	$ 60,350.3
b. Normal cost at January 1, 2014	398.2	198.6	71.9	668.7
c. Benefit payments for fiscal year ending December 31, 2014	(1,933.3)	(1,636.4)	(320.8)	(3,895.6)
d. Interest	2,400.3	1,757.2	390.6	4,552.1
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	$ 32,603.9	$ 23,712.0	$ 5,306.1	$ 61,675.6
f. Change in actuarial accrued liability at December 31, 2014, due to assumption, method, and plan changes	4,499.5	3,214.9	772.8	8,495.0
g. Expected actuarial accrued liability at December 31, 2014 *(e. + f.)*	$ 37,103.4	$ 26,926.9	$ 6,078.9	$ 70,170.6
2. Actuarial accrued liability at December 31, 2014	$ 37,169.9	$ 27,059.9	$ 6,104.9	$ 70,394.8
3. Liability gain/(loss) (1.g. - 2)	**$ (66.5)**	**$ (133.0)**	**$ (25.9)**	**$ (224.3)**
4. Expected actuarial value of assets				
a. Actuarial value of assets at January 1, 2014	$ 27,855.3	$ 19,967.8	$ 4,757.2	$ 52,459.9
b. Actual contributions for 2014	584.1	517.4	84.8	1,186.3
c. Benefit payments and expenses for fiscal year ending December 31, 2014	(1,948.3)	(1,649.1)	(323.3)	(3,925.8)
d. Assumed investment return	2,105.9	1,503.7	359.4	3,959.5
e. Expected actuarial value of assets before changes *(a. + b. + c. + d.)*	$ 28,597.0	$ 20,339.8	$ 4,878.2	$ 53,679.9
f. Change in actuarial value of assets at December 31, 2014, due to assumption changes	0.0	0.0	0.0	0.0
g. Expected actuarial value of assets at December 31, 2014 *(e. + f.)*	$ 28,597.0	$ 20,339.8	$ 4,878.2	$ 53,679.9
5. Actuarial value of assets as of December 31, 2014	$ 28,465.3	$ 20,277.9	$ 4,871.0	$ 53,493.6
6. Asset gain/(loss) (5. - 4.g.)	**$ (131.7)**	**$ (61.8)**	**$ (7.2)**	**$ (186.3)**
7. Net actuarial gain/(loss) (3. + 6.)	**$ (198.2)**	**$ (194.9)**	**$ (33.2)**	**$ (410.6)**
Amounts in millions				

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

Reconciliation of the UAL

The table below develops the UAL. For this exhibit, all independent employers, including State Judiciary, have been grouped together.

	SLGRP	School Districts	Independent Employers	Tier 1 / Tier 2 Totals[1]
UAL, December 31, 2013	3,883.5	3,424.8	407.1	7,890.4
Normal cost	398.2	198.6	71.9	668.7
Administrative expenses	15.0	12.7	2.5	30.2
Contributions	(584.1)	(517.4)	(84.8)	(1,186.3)
Liability (gain) or loss	66.5	133.0	25.9	224.3
Asset (gain) or loss	131.7	61.8	7.2	186.3
Assumption, method, and plan changes	4,499.5	3,214.9	772.8	8,495.0
Interest at 7.75%	294.3	253.6	31.1	592.6
UAL, December 31, 2014	**8,704.6**	**6,782.0**	**1,233.9**	**16,901.2**
Amounts in millions				

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

Tier 1/Tier 2 Pension Contribution Rate Development

Normal Cost Rates

The table below shows the development of the system-wide weighted average Tier 1/ Tier 2 normal cost rate.

	December 31, 2014	December 31, 2013	Percent Change
Normal Cost			
a. Service Retirement	488.5	440.5	10.9%
b. Withdrawal	212.4	203.2	4.5%
c. Duty Disability	3.3	3.2	2.6%
d. Nonduty Disability	17.1	15.3	11.8%
e. Death	6.0	6.6	(9.2%)
f. Administrative Expenses	33.0	-	
g. Total Normal Cost	**760.2**	**668.7**	**13.7%**
Tier 1/ Tier 2 Valuation Payroll	**4,933.1**	**5,073.7**	**(2.8%)**
Average Normal Cost Rate			
a. Service Retirement	9.90%	8.68%	
b. Withdrawal	4.31%	4.00%	
c. Duty Disability	0.07%	0.06%	
d. Nonduty Disability	0.35%	0.30%	
e. Death	0.12%	0.13%	
f. Administrative Expenses	0.67%	0.00%	
g. Average Normal Cost Rate	**15.41%**	**13.18%**	
Amounts in millions			

The table below shows the development of the Tier 1/Tier 2 normal cost rate for the various rate pools. For this exhibit, all independent employers, including State Judiciary, have been grouped together.

	SLGRP	School Districts	Independent Employers	Tier 1 / Tier 2 Totals
Normal Cost				
Tier 1 General Service	206.4	121.7	29.7	357.8
Tier 2 General Service	144.1	100.9	20.4	265.4
Tier 1 Police & Fire	47.4	0.2	16.7	64.3
Tier 2 Police & Fire	56.2	0.3	16.3	72.8
Total Normal Cost	**454.0**	**223.1**	**83.1**	**760.2**
Tier 1/ Tier 2 Valuation Payroll				
Tier 1 General Service	1,154.0	762.6	154.7	2,071.2
Tier 2 General Service	1,158.2	861.2	161.4	2,180.8
Tier 1 Police & Fire	220.0	0.9	75.5	296.4
Tier 2 Police & Fire	295.7	1.3	87.6	384.6
Total Valuation Payroll	**2,827.9**	**1,626.0**	**479.2**	**4,933.1**
Average Normal Cost Rates				
Tier 1 General Service	17.89%	15.96%	19.21%	17.28%
Tier 2 General Service	12.44%	11.72%	12.65%	12.17%
Tier 1 Police & Fire	21.53%	23.38%	22.10%	21.68%
Tier 2 Police & Fire	19.00%	21.04%	18.61%	18.92%
Average Rates				
Tier 1 Average	18.47%	15.97%	20.16%	17.83%
Tier 2 Average	13.77%	11.73%	14.74%	13.18%
General Service Average	15.16%	13.71%	15.86%	14.66%
Police & Fire Average	20.08%	22.03%	20.23%	20.12%
System Average	**16.05%**	**13.72%**	**17.35%**	**15.41%**
Member Contributions			0.34%	0.03%
Employer System Average	**16.05%**	**13.72%**	**17.01%**	**15.38%**
Amounts in millions				

UAL Rates

The Tier 1/Tier 2 UAL rate is determined by calculating the next year's scheduled payment to the Tier 1/Tier 2 UAL as a percentage of combined (Tier 1/Tier 2 plus OPSRP) valuation payroll.

The following table develops the Tier 1/Tier 2 UAL rate separately for each of the rate pools. For this exhibit, all independent employers, including State Judiciary, have been grouped together.

	SLGRP	School Districts	Independent Employers	Tier 1 / Tier 2 Totals[1]
December 31, 2014				
1. Total UAL	$ 8,704.6	$ 6,782.0	$ 1,233.9	$ 16,901.2
2. Next year's UAL payment	$ 639.8	$ 499.5	$ 90.3	$ 1,229.6
3. Combined valuation payroll	$ 5,390.8	$ 2,872.7	$ 852.2	$ 9,115.8
4. UAL rate (2 ÷ 3)	**11.87%**	**17.39%**	**10.60%**	**13.49%**
December 31, 2013				
1. Total UAL	$ 3,883.5	$ 3,424.8	$ 407.1	$ 7,890.4
2. Next year's UAL payment	$ 281.1	$ 247.9	$ 29.5	$ 558.4
3. Combined valuation payroll	$ 5,121.9	$ 2,723.5	$ 826.4	$ 8,671.8
4. UAL rate (2 ÷ 3)	**5.49%**	**9.10%**	**3.57%**	**6.44%**
Amounts in millions				

[1] *While the Tier 1/Tier 2 Total UAL amount includes the UAL for Multnomah Fire District #10 (MFD), the UAL rate for MFD is developed separately in this report and is added to the rates shown in this table.*

Pre-SLGRP Pooled Rate

Prior to the formation of the SLGRP, the State and Community Colleges were pooled together and some employers participated in the Local Government Rate Pool (LGRP). The Tier 1/Tier 2 UAL attributable to the State and Community Colleges and the LGRP at the time the SLGRP was formed is maintained separately from the Tier 1/Tier 2 UAL for the SLGRP. The balance of the pre-SLGRP pooled liability attributable to the State and Community Colleges or the LGRP on the valuation date is amortized over the period ending December 31, 2027 and expressed as a percentage of combined (Tier 1/Tier 2 plus OPSRP) valuation payroll.

	December 31, 2014	December 31, 2013
State and Community College Pool		
1. Total pre-SLGRP pooled liability	$ 561.1	$ 577.5
2. Combined valuation payroll	$ 3,109.6	$ 2,918.8
3. Amortization Factor	10.118	10.703
4. Pre-SLGRP pooled rate (1. ÷ 2. ÷ 3.)	1.78%	1.85%
Local Government Rate Pool		
1. Total pre-SLGRP pooled liability	$ (237.2)	$ (242.7)
2. Combined valuation payroll	$ 1,325.4	$ 1,256.4
3. Amortization Factor	10.118	10.703
4. Pre-SLGRP pooled rate (1. ÷ 2. ÷3.)	(1.77%)	(1.81%)
Amounts in millions		

Transition Liability or Surplus Rate

When an employer joins the SLGRP, a transition liability or surplus is calculated to ensure that each employer enters the pool on a comparable basis. The transition liability is maintained separately from the Tier 1/Tier 2 UAL for the SLGRP. The transition liability is amortized over a fixed period, and is expressed as a percentage of combined (Tier 1/Tier 2 plus OPSRP) valuation payroll. For employers joining the SLGRP prior to December 31, 2009, the fixed period ends December 31, 2027. For all others, the fixed period ends 18 years after the date the employer joined the SLGRP. The amortization factor below reflects the weighted average of the amortization periods for all employers.

	December 31, 2014	December 31, 2013
1. Total transition liability / (surplus)	$ (762.2)	$ (775.7)
2. Combined valuation payroll	$ 2,096.1	$ 2,027.5
3. Average Amortization Factor[1]	10.127	10.711
4. **Average transition liability/(surplus) rate (1. ÷ 2. ÷ 3.)**	**(3.59%)**	**(3.57%)**
Amounts in millions		

[1] *Weighted average*

Multnomah Fire District #10 UAL Rate

The Multnomah Fire District #10 UAL rate is determined by amortizing Multnomah Fire District #10's unfunded accrued liability over the period ending December 31, 2027, and expressing the result as a percentage of combined valuation payroll.

As part of 2003 legislation, the Multnomah Fire District #10 UAL was allocated to Tier 1/Tier 2 employers. Multnomah Fire District #10 was allocated $50,000 of the outstanding UAL, which was fully paid in November, 2003. Of the remaining UAL, City of Portland is allocated 21.8743%, while all Tier 1/Tier 2 employers, including City of Portland, share in the remaining 78.1257%. In addition, four other employers (City of Gresham, City of Fairview, City of Wood Village, and City of Troutdale) are required to pay twice the rate that is determined under item 6.b. below. Thus, the combined valuation payroll for all Tier 1/Tier 2 employers, shown below in item 4.b., includes twice the valuation payroll for those four employers.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability		
a. Active members	$ 0.1	$ 0.1
b. Dormant members	0.0	0.0
c. Retired members and beneficiaries	60.0	54.5
d. Total actuarial accrued liability	$ 60.2	$ 54.6
2. Actuarial value of assets		
a. Employer reserve	$ (151.7)	$ (154.3)
b. Members reserve	0.1	0.1
c. Benefits in force reserve	30.9	33.8
d. Total actuarial value of aseets	$ (120.6)	$ (120.4)
3. Multnomah FD #10 UAL	$ 180.8	$ 175.0
a. Portion allocated to City of Portland (21.8743% x 3.)	$ 39.5	$ 38.3
b. Portion allocated to all T1/T2 employers (78.1257% x 3.)	$ 141.3	$ 136.8
4. Combined valuation payroll		
a. City of Portland	$ 335.1	$ 313.3
b. All employers	$ 9,165.5	$ 8,719.8
5. Amortization factor	10.118	10.703
6. Multnomah FD #10 UAL Rate		
a. City of Portland (3.a. ÷ 4.a. ÷ 5.)	1.17%	1.14%
b. All Tier 1 / Tier 2 employers (3.b. ÷ 4.b. ÷ 5.)	0.15%	0.15%
7. Total Multnomah FD #10 UAL Rate		
a. City of Portland (6.a. + 6.b.)	1.32%	1.29%
b. City of Gresham, City of Fairview, City of Wood Village, City of Troutdale (2 x 6.b.)	0.30%	0.30%
c. All other Tier 1 / Tier 2 employers (6.b.)	0.15%	0.15%

Amounts in millions

Calculated Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the development of the total Tier 1/Tier 2 contribution rate for each rate pool as of the valuation date. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates are applied to combined (Tier 1/Tier 2 plus OPSRP) valuation payroll. These rates are adjusted on an individual employer basis for side accounts and pre-SLGRP liabilities, if applicable. Weighted average adjustments for side accounts and pre-SLGRP liabilities are shown in the table. For individual employers, these adjustments cannot reduce the pension contribution rate below 0.0%. Note that independent employers, other than the State Judiciary, are subject to a minimum employer contribution rate of 6.0% that is not taken into account in the average rates below.

Pre-Rate Collar Advisory July 1, 2017 Rates Calculated as of December 31, 2014				
	SLGRP	School Districts	Independent Employers	Tier 1 / Tier 2 Totals
Tier 1/Tier 2 pension contribution rates				
Employer normal cost rate	16.05%	13.72%	17.01%	15.38%
Member normal cost rate			0.34%	0.03%
Uncollared UAL rate	11.87%	17.39%	10.60%	13.49%
Multnomah FD #10 rate	0.22%	0.15%	0.16%	0.19%
Total Tier 1/Tier 2 pension rate	**28.14%**	**31.26%**	**28.11%**	**29.09%**
Average adjustments				
Pre-SLGRP liability/(surplus) rate	(0.80%)	N/A	N/A	(0.47%)
Side account rate	(4.94%)	(10.61%)	(1.11%)	(6.37%)
Total average adjustment	**(5.74%)**	**(10.61%)**	**(1.11%)**	**(6.84%)**
Uncollared net pension contribution rate	**22.40%**	**20.65%**	**27.00%**	**22.25%**

Calculation of Rate Collar

Due to the rate collar, employer base contribution rates will not generally change by more than the greater of 3 percent of payroll or 20% of the current contribution rate. However, if the funded percentage is below 60% or above 140%, the size of the rate collar is doubled. If the funded percentage is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale. All rate collar calculations are performed excluding amounts and contribution rates attributable to pre-SLGRP liabilities, side accounts and member IAP contributions. Retiree medical rates are also excluded from the rate collar calculation.

The table below develops the impact of the collar for each of the Tier 1/Tier 2 rate pools. Although the calculation is performed individually for independent employers, the table shows the calculation as if independent employers were a single rate pool. Note that independent employers, other than the State Judiciary, are subject to a minimum employer contribution rate of 6.0% that is not taken into account in the calculation below.

Advisory July 1, 2017 Rates Calculated as of December 31, 2014				
Calculation of Collar Adjustments	**SLGRP**	**School Districts**	**Independent Employers**	**Tier 1 / Tier 2 Totals[1]**
1. Current employer contribution rate[2]	18.23%	21.19%	16.79%	19.03%
2. Size of rate collar				
a. Preliminary size of rate collar (*maximum of 3% or 20% x 1.*)	3.65%	4.24%	3.36%	3.81%
b. Funded percentage	77%	75%	80%	76%
c. Size of rate collar *(If b. < 60% or b. > 140%, 2 x a. If b. is 70%-130%, a. Otherwise, a graded rate between a. and 2 x a.)*	**3.65%**	**4.24%**	**3.36%**	
3. July 1, 2017 Minimum employer contribution rate *(1. - 2.c.)*	14.58%	16.95%	13.43%	
4. July 1, 2017 Maximum employer contribution rate *(1. + 2.c.)*	21.88%	25.43%	20.15%	
5. Advisory July 1, 2017 employer contribution rate before collar	28.14%	31.26%	27.77%	
6. July 1, 2017 employer contribution rate after collar *(5., but not less than 3. or more than 4.)*	21.88%	25.43%	20.15%	
7. Impact of collar *(6. - 5.)*[3]	**(6.26%)**	**(5.83%)**	**(7.62%)**	**(6.25%)**

1 *The average Tier 1/Tier 2 rate has been recalculated based on current valuation payroll.*

2 *Current employer contribution rates reflect changes to actual 2013-2015 contributions made by Senate Bill 822.*

3 *The impact of collar shown for the system-wide column is the weighted average of the impact shown for each rate pool.*

Calculated Employer Contribution Rate Summary (Post-Rate Collar)

Any needed adjustment to reflect the effects of the rate collar is made to the UAL rate. The table below summarizes the advisory average rates that would be effective July 1, 2017 by pool and component. Although the rate collar is applied individually for independent employers, the table shows the average rates as if independent employers were a single rate pool. Note that independent employers, other than the State Judiciary, are subject to a minimum employer contribution rate of 6.0% that is not taken into account in the average rates below.

	Advisory July 1, 2017 Rates Calculated as of December 31, 2014			
	SLGRP	School Districts	Independent Employers	Tier 1 / Tier 2 Totals
Tier 1/Tier 2 pension contribution rates				
Employer normal cost rate	16.05%	13.72%	17.01%	15.38%
Member normal cost rate			0.34%	0.03%
Collared UAL rate	5.61%	11.56%	2.98%	7.24%
Multnomah FD #10 rate	0.22%	0.15%	0.16%	0.19%
Total Tier 1/Tier 2 pension rate	**21.88%**	**25.43%**	**20.49%**	**22.84%**
Average adjustments				
Pre-SLGRP liability/(surplus) rate	(0.80%)	N/A	N/A	(0.47%)
Side account rate	(4.94%)	(10.61%)	(1.11%)	(6.37%)
Total average adjustment	**(5.74%)**	**(10.61%)**	**(1.11%)**	**(6.84%)**
Collared net pension contribution rate	**16.14%**	**14.82%**	**19.38%**	**16.00%**

OPSRP Assets

Information on OPSRP assets is shown in the section of this report covering the system-wide assets. As of December 31, 2014, the actuarial value of assets for OPSRP is $2,024.6 million.

OPSRP Liabilities

Normal Cost

The normal cost represents the present value of projected future benefits allocated to the next year of service by the actuarial cost method. If all current actuarial assumptions are met in past and future years, the normal cost represents the percent of payroll that would need to be contributed each year to fully fund each member's plan benefits during his or her working career.

A summary of the normal cost by assumed cause of future termination of service is shown below for the current and prior year.

	December 31, 2014			December 31, 2013		
	General Service	Police & Fire	Total	General Service	Police & Fire	Total
Pre-Retirement Disability						
Duty	$ 0.5	$ 0.7	$ 1.2	$ 0.5	$ 0.6	$ 1.1
Non-Duty	6.3	0.8	7.1	5.1	0.6	5.8
Total Pre-Retirement Disability	**$ 6.8**	**$ 1.5**	**$ 8.3**	**$ 5.6**	**$ 1.2**	**$ 6.8**
Other Benefits						
Service Retirement	$ 253.8	$ 53.3	$ 307.1	$ 198.8	$ 40.5	$ 239.2
Withdrawal	28.4	2.6	31.0	20.2	2.1	22.4
Death	3.2	0.5	3.7	2.4	0.4	2.8
Duty Disability Retirement	0.2	0.5	0.7	0.2	0.3	0.5
Non-Duty Disability Retirement	4.0	0.6	4.6	2.6	0.4	3.0
Total Other Benefits	**$ 289.6**	**$ 57.5**	**$ 347.1**	**$ 224.2**	**$ 43.7**	**$ 267.9**
Assumed Administrative Expenses	$ 4.9	$ 0.6	$ 5.5	$ 4.9	$ 0.6	$ 5.5
Total Normal Cost	**$ 301.3**	**$ 59.6**	**$ 360.9**	**$ 234.7**	**$ 45.5**	**$ 280.2**
Amounts in millions						

The increase in the normal cost since the prior valuation is primarily attributable to the change in the assumptions for investment return and life expectancy, plus the effect of new entrants to the OPSRP program. The table below reconciles the normal cost from the prior valuation to the current valuation.

	OPSRP
Normal Cost, December 31, 2013	**$ 280.2**
Expected increase	(8.1)
Assumption and method changes	30.1
Plan changes	5.6
New entrants	45.8
Deviations from expected experience	7.3
Normal Cost, December 31, 2014	**$ 360.9**
Amounts in millions	

Actuarial Accrued Liability

The actuarial accrued liability represents the present value of projected future benefits allocated to prior years of service by the actuarial cost method. For active members, a summary of the actuarial accrued liability by assumed cause of future termination of service is shown below for the current and prior year.

	December 31, 2014			December 31, 2013		
	General Service	Police & Fire	Total	General Service	Police & Fire	Total
Active Members						
Pre-retirement Duty Disability	$ 0.5	$ 1.1	$ 1.6	$ 0.7	$ 1.0	$ 1.7
Pre-retirement Non-Duty Disability	54.5	5.7	60.2	43.1	4.6	47.6
Service Retirement	2,148.5	381.1	2,529.6	1,602.0	280.2	1,882.2
Withdrawal	139.1	11.7	150.8	102.0	9.7	111.7
Death	25.5	3.4	28.9	18.5	2.3	20.8
Duty Disability Retirement	1.6	2.7	4.3	1.4	1.8	3.2
Non-Duty Disability Retirement	34.8	4.5	39.3	22.2	3.0	25.2
Total Active Members	**$ 2,404.4**	**$ 410.2**	**$ 2,814.7**	**$ 1,789.8**	**$ 302.6**	**$ 2,092.4**
Inactive Members			$ 156.9			$ 99.6
Retired Members and Beneficiaries			$ 92.4			$ 51.2
Total Actuarial Accrued Liability			**$ 3,064.1**			**$ 2,243.3**
Amounts in millions						

The change in actuarial accrued liability since the last valuation reflects the experience of the system. The table below reconciles the actuarial accrued liability from the last valuation to this valuation. The actuarial accrued liability is expected to increase due to benefits earned during the year and interest, and to decrease due to benefits paid during the year.

	OPSRP
Actuarial Accrued Liability December 31, 2013	**$ 2,243.3**
Expected change	448.4
Assumption and method changes	188.7
Plan changes	70.7
Deviations from expected experience	
Retirements from active status	(0.6)
Active mortality and withdrawal	11.8
Pay increases	32.9
Other	(5.6)
Total demographic (gains) and losses	**38.5**
New entrants	74.5
Actuarial Accrued Liability December 31, 2014	**$ 3,064.1**
Amounts in millions	

OPSRP Unfunded Accrued Liability (UAL)

Calculation of UAL

The Unfunded Accrued Liability (UAL) represents the difference between the actuarial accrued liability and the valuation assets. The UAL is amortized over combined (Tier 1/Tier 2 and OPSRP) valuation payroll. The table below shows the OPSRP UAL, funded status, and UAL as a percentage of combined valuation payroll.

	December 31, 2014	December 31, 2013
1. Actuarial accrued liability	$ 3,064.1	$ 2,243.3
2. Actuarial value of assets	$ 2,024.6	$ 1,630.2
3. Unfunded accrued liability	$ 1,039.5	$ 613.2
4. Funded percentage *(2. ÷ 1.)*	66%	73%
5. Combined valuation payroll	$ 9,115.8	$ 8,671.8
6. Unfunded accrued liability as % of combined valuation payroll	11%	7%
Amounts in millions		

Reconciliation of UAL Bases

Beginning with the December 31, 2007, actuarial valuation, each odd-year valuation establishes a 16-year closed-period amortization base for outstanding OPSRP UAL amounts. For odd-year valuations subsequent to December 31, 2007, this amortization base will be calculated based on the total OPSRP UAL as of that valuation date less the remaining unamortized balance of any OPSRP UAL bases established at previous odd-year valuation dates. In other words, OPSRP experience from December 31, 2011 to December 31, 2013 is amortized based on a 16-year amortization schedule beginning December 31, 2013. This even-year advisory valuation shows both the progress of the amortization bases established in prior valuations and an estimate of the base to be established on December 31, 2015, with the estimate based on experience during 2014. The payment schedules for the unamortized UAL balances as of December 31, 2014, have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

Reconciliation of UAL Bases

Amortization Base	UAL, December 31, 2013	Payment	Interest	UAL, December 31, 2014	Next Year's Payment
December 31, 2007	$ (62.6)	$ (7.6)	$ (4.5)	$ (59.5)	$ (7.9)
December 31, 2009	149.8	15.8	11.0	145.0	16.4
December 31, 2011	55.2	5.2	4.1	54.1	5.3
December 31, 2013	470.8	39.8	34.8	465.8	41.3
December 31, 2014	N/A	N/A	N/A	434.1	36.7
Total	**$ 613.2**	**$ 53.1**	**$ 45.3**	**$ 1,039.5**	**$ 91.8**
Amounts in millions					

Actuarial Gain or Loss since Prior Valuation

In every actuarial valuation, assumptions are made as to the future experience of the plan and covered group of participants. Whenever there is a difference between the actual experience and that anticipated by the actuarial assumptions, there is an actuarial gain or loss to the plan. Gains are the result of experience that is more financially favorable to the system than anticipated (i.e., serves to reduce the unfunded accrued liability or increase the surplus), while losses are the result of experience that is financially unfavorable to the system. The 2014 liability loss is primarily due to new entrants to the OPSRP program.

The table below develops the actuarial gain or loss for OPSRP for the year ending December 31, 2014.

			OPSRP
1.	Expected actuarial accrued liability		
	a.	Actuarial accrued liability at December 31, 2013	$ 2,243.3
	b.	Normal cost at December 31, 2013 (excluding administrative expenses)	$ 274.7
	c.	Benefit payments (excluding administrative expenses) for year ending December 31, 2014	$ (10.4)
	d.	Interest	$ 184.1
	e.	Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	$ 2,691.7
	f.	Change in actuarial accrued liability at December 31, 2014, due to assumption and method changes	$ 188.7
	g.	Change in actuarial accrued liability at December 31, 2014, due to plan changes	$ 70.7
	h.	Expected actuarial accrued liability at December 31, 2014 *(e. + f. + g.)*	$ 2,951.1
2.	Actuarial accrued liability at December 31, 2014		$ 3,064.1
3.	**Liability gain/(loss) (1.h. - 2)**		**$ (113.0)**
4.	Expected actuarial value of assets		
	a.	Actuarial value of assets at December 31, 2013	$ 1,630.2
	b.	Actual contributions for 2014	$ 271.0
	c.	Benefit payments and administrative expenses for fiscal year ending December 31, 2014	$ (15.4)
	d.	Assumed investment return	$ 136.2
	e.	Expected actuarial value of assets at December 31, 2014 *(a. + b. + c. + d.)*	$ 2,022.0
5.	Actuarial value of assets as of December 31, 2014		$ 2,024.6
6.	**Asset gain/(loss) (5. - 4.e.)**		**$ 2.6**
7.	**Net actuarial gain/(loss) (3. + 6.)**		**$ (110.4)**

Amounts in millions

Reconciliation of the UAL

The table below summarizes the changes in UAL since the prior valuation.

	OPSRP
UAL, December 31, 2013	**$ 613.2**
Normal Cost (including actual administrative expenses)	279.7
Contributions	(271.0)
Liability (gain) or loss	113.0
Asset (gain) or loss	(2.6)
Assumption and method changes	188.7
Plan changes	70.7
Interest at 7.75%	47.9
UAL, December 31, 2014	**$ 1,039.5**
Amounts in millions	

OPSRP Contribution Rate Development

Normal Cost Rates

The table below shows the development of the OPSRP normal cost rates.

Development of Normal Cost Rate	December 31, 2014 General Service	December 31, 2014 Police & Fire	December 31, 2014 Total	December 31, 2013 General Service	December 31, 2013 Police & Fire	December 31, 2013 Total
Normal Cost						
Pre-retirement Disability Benefits	$ 6.8	$ 1.5	$ 8.3	$ 5.6	$ 1.2	$ 6.8
All Other Benefits	289.6	57.5	347.1	224.2	43.7	267.9
Assumed Administrative Expenses	4.9	0.6	5.5	4.9	0.6	5.5
Total Normal Cost	**$ 301.3**	**$ 59.6**	**$ 360.9**	**$ 234.7**	**$ 45.5**	**$ 280.2**
OPSRP Valuation Payroll	$ 3,720.4	$ 462.3	$ 4,182.7	$ 3,200.0	$ 398.1	$ 3,598.1
Normal Cost Rate						
Pre-retirement Disability Benefits	0.18%	0.33%	0.20%	0.18%	0.31%	0.19%
All Other Benefits	7.78%	12.44%	8.30%	7.01%	10.98%	7.45%
Assumed Administrative Expenses	0.13%	0.13%	0.13%	0.15%	0.15%	0.15%
Total Normal Cost	**8.10%**	**12.90%**	**8.63%**	**7.33%**	**11.44%**	**7.79%**
Amounts in millions						

UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined (Tier 1/Tier 2 and OPSRP) valuation payroll.

	December 31, 2014	December 31, 2013
1. Total UAL	$ 1,039.5	$ 613.2
2. Next year's UAL payment	$ 91.8	$ 53.1
3. Combined valuation payroll	$ 9,115.8	$ 8,671.8
4. UAL rate (2 ÷ 3)	1.01%	0.61%
Amounts in millions		

Calculated Employer Contribution Rates (Pre-Rate Collar)

The following table summarizes the OPSRP contribution rate for general service and police & fire members as of the valuation date prior to application of the rate collar.

The normal cost rates apply to OPSRP payroll only, but the UAL rate is applied to combined (Tier 1/Tier 2 and OPSRP) valuation payroll. These rates, after the application of the rate collar, are combined with each employer's Tier 1/Tier 2 rates (other than Tier 1/Tier 2 normal cost rate) to determine each employer's contribution rate on OPSRP payroll.

	Advisory July 1, 2017 Rates Calculated as of December 31, 2014		
	General Service	Police & Fire	Average Rate
OPSRP pension contribution rates			
Employer normal cost rate	8.10%	12.90%	8.63%
Employer UAL rate	1.01%	1.01%	1.01%
Total OPSRP pension rate	**9.11%**	**13.91%**	**9.64%**

Calculation of Rate Collar

The rate collar restricts the average OPSRP contribution rate so it generally cannot change by more than the greater of 3 percent of payroll or 20% of the current average OPSRP contribution rate. However, if the funded percentage is below 60% or above 140%, the size of the collar is doubled. If the funded percentage is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale. All collar calculations are performed based on the weighted average OPSRP contribution rate, and any adjustment due to the collar is applied to the OPSRP UAL rate.

The table below shows the calculation of and any adjustment for the rate collar.

	Advisory July 1, 2017 Rates Calculated as of December 31, 2014		
	General Service	Police & Fire	Average Rate
1. Current employer contribution rate	7.94%	12.05%	8.40%
2. Size of rate collar			
a. Preliminary size of rate collar (Maximum of 3% or 20% of 1.)			3.00%
b. Funded percentage			66%
c. Size of rate collar (If b. < 60% or b. > 140%, 2 x a.. If b. is 70% - 130%, a., otherwise a graded rate between a. and b.)			**4.20%**
3. July 1, 2017 Minimum contribution rate (1. - 2.c.)			4.20%
4. July 1, 2017 Maximum contribution rate (1. + 2.c.)			12.60%
5. Advisory July 1, 2017 employer contribution rate before collar	9.11%	13.91%	9.64%
6. Advisory July 1, 2017 employer contribution rate after collar	9.11%	13.91%	9.64%
7. Impact of collar (6. - 5.)	**0.00%**	**0.00%**	**0.00%**

Calculated Employer Contribution Rates (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for OPSRP after adjustments for the rate collar.

	Advisory July 1, 2017 Rates Calculated as of December 31, 2014		
	General Service	Police & Fire	Average Rate
OPSRP pension contribution rates			
Employer normal cost rate	8.10%	12.90%	8.63%
Employer UAL rate	1.01%	1.01%	1.01%
Total OPSRP pension rate	**9.11%**	**13.91%**	**9.64%**

Retiree Healthcare Valuation

Retiree Healthcare Assets

Assets

A reconciliation of retiree healthcare assets is shown below. The reconciliation of assets is provided by PERS.

		RHIA		RHIPA		Retiree Healthcare Totals
Additions						
1. Employer contributions	$	49.5	$	6.4	$	55.8
2. Net investment income	$	25.8	$	0.4	$	26.1
3. Other	$	(0.0)	$	0.0	$	(0.0)
4. Total additions	**$**	**75.2**	**$**	**6.7**	**$**	**82.0**
Deductions						
4. Healthcare Premium Subsidies	$	(31.6)	$	(4.6)		(36.3)
5. Administrative expenses	$	(1.2)	$	(0.2)		(1.3)
6. Total deductions	**$**	**(32.8)**	**$**	**(4.8)**		**(37.6)**
7. Net change	**$**	**42.4**	**$**	**1.9**		**44.4**
8. Net assets held in trust for benefits						
a. Beginning of year	$	353.5	$	5.2		358.8
b. End of year	**$**	**395.9**	**$**	**7.2**		**403.1**

Amounts in millions

Retiree Healthcare Liabilities

Normal Cost

A summary of the normal cost by decrement is shown below for the retiree healthcare benefits.

	RHIA			RHIPA		
	12/31/2014	12/31/2013	Percent Change	12/31/2014	12/31/2013	Percent Change
Normal Cost						
Service Retirement	$ 2.6	$ 3.0		$ 1.5	$ 1.2	
Withdrawal	0.8	0.9		0.0	0.0	
Duty Disability	0.0	0.0		0.0	0.0	
Nonduty Disability	0.0	0.0		0.1	0.1	
Death	0.0	0.1		0.0	0.0	
Total Normal Cost	**$ 3.5**	**$ 4.0**	**(12.0%)**	**$ 1.6**	**$ 1.3**	**20.2%**
Amounts in millions						

The table below reconciles the normal cost from the prior valuation to the current valuation.

	RHIA	RHIPA
Normal Cost December 31, 2013	**$4.0**	**$1.3**
Expected increase/(decrease)	(0.1)	(0.0)
Assumption and method changes	(0.2)	0.4
Plan changes	-	-
Deviations from expected experience		
Demographic (gains) or losses	(0.2)	(0.1)
Normal Cost December 31, 2014	**$3.5**	**$1.6**
Amounts in millions		

Actuarial Accrued Liability

A summary of the actuarial accrued liability by status is shown below for the retiree healthcare benefits.

	RHIA			RHIPA		
	12/31/2014	12/31/2013	Percent Change	12/31/2014	12/31/2013	Percent Change
Actives	$ 88.9	$ 99.5	(10.7%)	$ 54.9	$ 45.1	21.8%
Inactive Members	24.4	26.1	(6.4%)	0.0	0.0	0.0%
Retired Members and Beneficiaries	355.1	348.0	2.0%	15.7	16.1	(2.8%)
Total Actuarial Accrued Liability	$ 468.4	$ 473.6	(1.1%)	$ 70.5	$ 61.2	15.3%
Amounts in millions						

The change in actuarial accrued liability since the last valuation reflects the experience of the system. The table below reconciles the actuarial accrued liability from the last valuation to this valuation. The actuarial accrued liability is expected to increase due to benefits earned during the year and interest, and to decrease due to benefits paid during the year.

	RHIA	RHIPA	Total
Actuarial Accrued Liability December 31, 2013	$ 473.6	$ 61.2	$ 534.7
Expected change	8.0	1.3	9.3
Assumption and method changes	(5.4)	11.5	6.1
Plan changes	0.0	0.0	0.0
Deviations from expected experience			
Demographic (gains) or losses	(7.7)	(3.5)	(11.2)
Actuarial Accrued Liability December 31, 2014	$ 468.4	$ 70.5	$ 538.9
Amounts in millions			

Retiree Healthcare Unfunded Accrued Liability (UAL)

Calculation of UAL

The Unfunded Accrued Liability (UAL) represents the difference between the actuarial accrued liability and the valuation assets. A summary of the UAL by program is shown on the following table.

	RHIA			RHIPA		
	12/31/2014	12/31/2013	Percent Change	12/31/2014	12/31/2013	Percent Change
1. Actuarial accrued liability	$ 468.4	$ 473.6	(1.1%)	$ 70.5	$ 61.2	15.3%
2. Actuarial value of assets	$ 395.9	$ 353.5	12.0%	$ 7.2	$ 5.2	37.1%
3. Unfunded accrued liability	$ 72.5	$ 120.0	(39.6%)	$ 63.3	$ 55.9	13.3%
4. Funded percentage (2. ÷ 1.)	84.5%	74.7%	13.2%	10.2%	8.6%	18.9%
5. Combined valuation payroll	$ 9,115.8	$ 8,671.8	5.1%	$ 2,718.9	$ 2,531.5	7.4%
6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.)	0.8%	1.4%		2.3%	2.2%	
Amounts in millions						

Reconciliation of UAL Bases

Beginning with the December 31, 2007 actuarial valuation, each rate-setting valuation establishes a 10-year amortization base for outstanding RHIA and RHIPA UAL amounts. For odd-year valuations subsequent to December 31, 2007, this amortization base will be calculated based on the total UAL as of that valuation date less the remaining unamortized balance of any UAL bases established at previous odd-year valuation dates. In other words, RHIA and RHIPA experience from December 31, 2011 to December 31, 2013 is amortized on a 10-year amortization beginning December 31, 2013. The payment schedules for the unamortized UAL balances as of December 31, 2014, have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

RHIA

Amortization Base	UAL, December 31, 2013	Payment	Interest	UAL, December 31, 2014	Next Year's Payment
December 31, 2007	$ 146.6	$ 40.1	$ 9.7	$ 116.2	$ 41.6
December 31, 2009	46.9	8.9	3.3	41.3	9.2
December 31, 2011	(27.8)	(4.1)	(2.0)	(25.7)	(4.2)
December 31, 2013	(45.6)	(5.6)	(3.3)	(43.4)	(5.8)
December 31, 2014	N/A	N/A	N/A	(15.9)	(1.9)
Total	**$ 120.0**	**$ 39.3**	**$ 7.7**	**$ 72.5**	**$ 38.8**

RHIPA

Amortization Base	UAL, December 31, 2013	Payment	Interest	UAL, December 31, 2014	Next Year's Payment
December 31, 2007	$ 10.0	$ 2.7	$ 0.7	$ 8.0	$ 2.8
December 31, 2009	1.6	0.3	0.1	1.4	0.3
December 31, 2011	13.0	1.9	0.9	12.0	2.0
December 31, 2013	31.3	3.8	2.3	29.8	4.0
December 31, 2014	N/A	N/A	N/A	12.2	1.5
Total	**$ 55.9**	**$ 8.8**	**$ 4.0**	**$ 63.3**	**$ 10.6**

Amounts in millions

Actuarial Gain or Loss since Prior Valuation

In every actuarial valuation, assumptions are made as to the future experience of the plan and covered group of participants. Whenever there is a difference between the actual experience and that anticipated by the actuarial assumptions, there is an actuarial gain or loss to the plan. Gains are the result of experience that is more financially favorable to the system than anticipated (i.e., serves to reduce the unfunded accrued liability or increase the surplus), while losses are the result of experience that is financially unfavorable to the system.

The table below shows the development of the actuarial gain (or loss) for RHIA and RHIPA for the plan year ending December 31, 2014.

	RHIA	RHIPA	Retiree Healthcare Totals
Retiree Healthcare			
1. Expected actuarial accrued liability			
a. Actuarial accrued liability at December 31, 2013	$ 473.6	$ 61.2	$ 534.7
b. Normal cost at December 31, 2013	$ 4.0	$ 1.3	$ 5.3
c. Benefit payments for fiscal year ending December 31, 2014	$ (31.6)	$ (4.6)	$ (36.3)
d. Interest	$ 35.6	$ 4.6	$ 40.2
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	$ 481.5	$ 62.5	$ 544.0
f. Change in actuarial accrued liability at December 31, 2014, due to assumption and method changes	$ (5.4)	$ 11.5	$ 6.1
g. Change in actuarial accrued liability at December 31, 2014, due to plan changes	$ 0.0	$ 0.0	$ 0.0
h. Expected actuarial accrued liability at December 31, 2014 *(e. + f. + g.)*	$ 476.1	$ 74.0	$ 550.2
2. Actuarial accrued liability at December 31, 2014	$ 468.4	$ 70.5	$ 538.9
3. Liability gain/(loss) (1.h. - 2.)	**$ 7.7**	**$ 3.5**	**$ 11.2**
4. Expected actuarial value of assets			
a. Actuarial value of assets at December 31, 2013	$ 353.5	$ 5.2	$ 358.8
b. Actual contributions for 2014	$ 49.5	$ 6.4	$ 55.8
c. Benefit payments and expenses for fiscal year ending December 31, 2014	$ (32.8)	$ (4.8)	$ (37.6)
d. Assumed investment return	$ 28.0	$ 0.5	$ 28.5
e. Expected actuarial value of assets before changes *(a. + b. + c. + d.)*	$ 398.2	$ 7.3	$ 405.5
f. Change in actuarial value of assets at December 31, 2014, due to assumption changes	$ 0.0	$ 0.0	$ 0.0
g. Change in actuarial value of assets at December 31, 2014, due to plan changes	$ 0.0	$ 0.0	$ 0.0
h. Expected actuarial value of assets at December 31, 2014 *(e. + f. + g.)*	$ 398.2	$ 7.3	$ 405.5
5. Actuarial value of assets at December 31, 2014	$ 395.9	$ 7.2	$ 403.1
6. Actuarial asset gain/(loss) (5. - 4.h.)	**$ (2.3)**	**$ (0.1)**	**$ (2.4)**
7. Net actuarial gain/(loss) (3. + 6.)	**$ 5.4**	**$ 3.4**	**$ 8.9**
Amounts in millions			

Reconciliation of UAL

The table below summarizes the changes in UAL since the prior valuation.

The significant decrease in the RHIA UAL is primarily due to employer contributions and lower participation than previously assumed. The lower actual rate of member participation created both an experience gain during the year and led to reduced assumed future participation, which further reduced the UAL.

The increase in the RHIPA UAL is primarily due to an increase in the assumed participation level of longer-service members, who are eligible for more valuable benefits under the program.

	RHIA	RHIPA
UAL, December 31, 2013	$ 120.0	$ 55.9
Normal Cost (including actual administrative expenses)	5.2	1.5
Contributions	(49.5)	(6.4)
Liability (gain) or loss	(7.7)	(3.5)
Asset (gain) or loss	2.3	0.1
Assumption and method changes	(5.4)	11.5
Interest	7.6	4.1
UAL, December 31, 2014	**$ 72.5**	**$ 63.3**
Amounts in millions		

Retiree Healthcare Contribution Rate Development

Normal Cost Rate

The table below shows the development of the retiree healthcare normal cost rates. For RHIA, valuation payroll is shown on a system-wide basis. For RHIPA, valuation payroll is for the State of Oregon and the State Judiciary only.

	RHIA		RHIPA	
	December 31, 2014	December 31, 2013	December 31, 2014	December 31, 2013
Normal Cost	$ 3.5	$ 4.0	$ 1.6	$ 1.3
Tier 1/Tier 2 Valuation Payroll	$ 4,933.1	$ 5,073.7	$ 1,406.3	$ 1,434.5
Normal Cost Rate	**0.07%**	**0.08%**	**0.11%**	**0.09%**
Amounts in millions				

The table below shows the development of the retiree healthcare normal cost rates for the various rate pools. For RHIA, valuation payroll is shown on a system-wide basis. For RHIPA, valuation payroll is for the State of Oregon and the State Judiciary only. For this exhibit, all independent employers, including State Judiciary, have been grouped together.

	December 31, 2014			
	SLGRP	School Districts	Independent Employers	Retiree Healthcare Total
1. Tier 1/ Tier 2 Valuation Payroll				
a. All Employers' Payroll	$ 2,827.9	$ 1,626.0	$ 479.2	$ 4,933.1
b. RHIPA Employers' Payroll	$ 1,382.9	$ 0.0	$ 23.4	$ 1,406.3
2. Normal Cost Rate				
a. RHIA	0.07%	0.07%	0.07%	0.07%
b. RHIPA	0.11%	0.00%	0.11%	0.11%
3. Weighted Average Normal Cost Rate [(1.a. x 2.a + 1.b. x 2.b.) / 1.a]	**0.12%**	**0.07%**	**0.08%**	**0.10%**
Amounts in millions				

UAL Rate

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined (Tier 1/Tier 2 and OPSRP) valuation payroll. For RHIPA, valuation payroll is for the State of Oregon and the State Judiciary only.

	RHIA		RHIPA	
	December 31, 2014	December 31, 2013	December 31, 2014	December 31, 2013
1. Total UAL	72.5	120.0	63.3	55.9
2. Next year's UAL payment	38.8	39.3	10.6	8.8
3. Combined valuation payroll	$ 9,115.8	$ 8,671.8	$ 2,718.9	$ 2,531.5
4. **UAL rate (2 ÷ 3)**	**0.43%**	**0.45%**	**0.39%**	**0.35%**
Amounts in millions				

The table below shows the development of the retiree healthcare UAL rates for the various rate pools. For RHIA, combined valuation payroll is shown on a system-wide basis. For RHIPA, valuation payroll is for the State of Oregon and the State Judiciary only. For this exhibit, all independent employers, including State Judiciary, have been grouped together.

	December 31, 2014			
	SLGRP	School Districts	Independent Employers	Retiree Healthcare Total
1. Combined Valuation Payroll				
a. All Employers' Payroll	$ 5,390.8	$ 2,872.7	$ 852.2	$ 9,115.8
b. RHIPA Employers' Payroll	$ 2,695.5	$ 0	$ 23.4	$ 2,718.9
2. UAL Rate				
a. RHIA	0.43%	0.43%	0.43%	0.43%
b. RHIPA	0.39%	0.00%	0.39%	0.39%
3. Weighted Average UAL Rate [(1.a. x 2.a + 1.b. x 2.b.) / 1.a]	**0.63%**	**0.43%**	**0.44%**	**0.55%**
Amounts in millions				

Calculated Employer Contribution Rate Summary

The following table summarizes the calculated employer contribution rates for the retiree healthcare programs. The normal cost rates are applied against Tier 1/Tier 2 payroll, but the UAL rates are applied against all payroll. For RHIPA, valuation payroll is for the State of Oregon and the State Judiciary only.

	Advisory July 1, 2017 Rates Calculated as of December 31, 2014		
	State Agencies and Judiciary	All Other Employers	Retiree Healthcare Total
Normal Cost Rates			
RHIA	0.07%	0.07%	0.07%
RHIPA	0.11%	0.00%	0.03%
Total normal cost rate	**0.18%**	**0.07%**	**0.10%**
UAL Rates			
RHIA	0.43%	0.43%	0.43%
RHIPA	0.39%	0.00%	0.12%
Total UAL rate	**0.82%**	**0.43%**	**0.55%**
Total retiree healthcare rate	**1.00%**	**0.50%**	**0.65%**

Accounting / CAFR Exhibits

Accounting/CAFR Exhibits

The following information as of December 31, 2014 has been prepared and provided to Oregon PERS for inclusion in the Actuarial Section of the 2015 Comprehensive Annual Financial Report (CAFR):

- Schedule of Active Member Valuation Data
- Schedule of Retirees and Beneficiaries Added to and Removed from Rolls
- Schedules of Funding Progress by Rate Pool
- Solvency Test
- Analysis of Financial Experience
- Schedules of Funding Progress

In addition, the Schedules of Employer Contributions and the Notes to Required Supplementary Schedules are provided for the Financial Section of the CAFR for retiree healthcare reporting under GASB Statement No. 43. All data and amounts shown for the December 31, 2005 and later actuarial valuations include both Tier 1/Tier 2 and OPSRP member and employer counts, assets, and liabilities.

The information for the retiree healthcare benefit has been prepared under GASB Statements 43 and 45 for purposes of assisting the System and participating employers in fulfilling their financial reporting requirements. **These exhibits do not reflect GASB Statements No. 67 and 68, issued by GASB in June 2012 to replace Statements No. 25 and 27.** GASB 67 governs plan financial reporting effective for fiscal years beginning after June 15, 2013, while GASB 68 governs employer financial reporting for fiscal years beginning after June 15, 2014. Milliman provided results for Oregon PERS under GASB 67 and 68 determined as of a June 30, 2014 measurement date in letters dated December 18, 2014 and July 29, 2015, respectively. The results for a measurement date of June 30, 2015 will be provided separately.

Some employers have made supplemental deposits in addition to their regularly scheduled contributions. These deposits are placed in a side account within the pension trust and used to offset future contribution requirements of that employer. The Schedules of Funding Progress and Solvency Test include side accounts as part of the Plan's assets since those amounts are in a restricted trust available exclusively for the benefit of plan members.

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 Oregon PERS in completing its financial statements, but any accounting determination should be reviewed by your auditor.

The exhibits are provided on the following pages.

Actuarial Schedules

Schedule of Active Member Valuation Data

Valuation Date	Count	Annual Payroll (in Thousands)	Average Annual Pay	% Increase in Average Pay	Number of Participating Employers[1]	
12/31/1993	137,513	$ 4,466,797	$ 32,483		N/A	
12/31/1995	141,471	$ 4,848,058	$ 34,269	5.5%	N/A	
12/31/1997	143,194	$ 5,161,562	$ 36,045	5.2%	N/A	
12/31/1999	151,262	$ 5,676,606	$ 37,528	4.1%	N/A	
12/31/2000	156,869	$ 6,195,862	$ 39,497	5.2%	N/A	
12/31/2001	160,477	$ 6,520,225	$ 40,630	2.9%	N/A	Old Basis
12/31/2001	160,477	$ 6,253,965	$ 38,971	—	N/A	New Basis[2]
12/31/2002	159,287	$ 6,383,475	$ 40,075	2.8%	N/A	
12/31/2003	153,723	$ 6,248,550	$ 40,648	1.4%	N/A	
12/31/2004	142,635	$ 6,306,447	$ 44,214	8.8%	806	
12/31/2005 [3]	156,501	$ 6,791,891	$ 43,398	-1.8%	810	
12/31/2006	163,261	$ 7,326,798	$ 44,878	3.4%	758	
12/31/2007	167,023	$ 7,721,819	$ 46,232	3.0%	760	
12/31/2008	170,569	$ 8,130,136	$ 47,665	3.1%	766	
12/31/2009	178,606	$ 8,512,192	$ 47,659	0.0%	776	
12/31/2010	193,569	$ 8,750,064	$ 45,204	-5.2%	787	
12/31/2011	170,972	$ 8,550,511	$ 50,011	10.6%	791	
12/31/2012	167,103	$ 8,590,879	$ 51,411	2.8%	798	
12/31/2013	162,185	$ 8,671,835	$ 53,469	4.0%	799	
12/31/2014	164,859	$ 9,115,767	$ 55,294	3.4%	802	

[1] *Effective in 2006, participating employers are defined for this purpose as any employer with covered payroll during the prior year. In prior years, employers with liabilities but without covered payroll were included as well.*

[2] *Effective in 2001, the Annual Payroll excludes the member pick-up, if any.*

[3] *Effective with the 12/31/2005 valuation, OPSRP members and payroll are included.*

Actuarial Schedules

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls

Annual Allowances are shown in thousands.

Valuation Date	Added to Rolls Count	Added to Rolls Annual Allowances	Removed from Rolls Count	Removed from Rolls Annual Allowances	Rolls - End of Year Count	Rolls - End of Year Annual Allowances	% Increase in Annual Allowances[1]	Average Annual Allowances
12/31/1993					60,841	$ 564,341	27.6%	$ 9,276
12/31/1995					64,796	$ 700,171	24.1%	$ 10,806
12/31/1997					69,624	$ 919,038	31.3%	$ 13,200
12/31/1999					82,819	$ 1,299,380	41.4%	$ 15,689
12/31/2000					82,458	$ 1,385,556	6.6%	$ 16,803
12/31/2001					85,216	$ 1,514,491	9.3%	$ 17,772
12/31/2002					89,482	$ 1,722,865	13.8%	$ 19,254
12/31/2003					97,777	$ 2,040,533	8.4%	$ 20,869
12/31/2004 [2]	6,754	$ 149,474	2,863	$ 35,151	101,668	$ 2,154,856	5.6%	$ 21,195
12/31/2005 [2]	4,472	$ 149,127	3,217	$ 36,784	102,923	$ 2,267,198	5.2%	$ 22,028
12/31/2006 [2]	5,060	$ 151,240	3,263	$ 39,735	104,720	$ 2,378,704	4.9%	$ 22,715
12/31/2007 [2]	5,385	$ 183,232	3,304	$ 40,590	106,801	$ 2,521,345	6.0%	$ 23,608
12/31/2008 [2]	5,963	$ 171,484	3,626	$ 47,062	109,138	$ 2,645,767	4.9%	$ 24,242
12/31/2009 [2]	6,377	$ 226,713	3,374	$ 46,228	112,141	$ 2,826,252	6.8%	$ 25,203
12/31/2010 [2]	6,359	$ 217,424	3,512	$ 51,627	114,988	$ 2,992,048	5.9%	$ 26,021
12/31/2011 [2]	8,715	$ 282,098	3,679	$ 55,633	120,024	$ 3,218,514	7.6%	$ 26,816
12/31/2012 [2]	7,023	$ 235,917	4,875	$ 59,353	122,172	$ 3,395,079	5.5%	$ 27,789
12/31/2013	9,724	$ 307,551	3,644	$ 66,607	128,252	$ 3,636,023	7.1%	$ 28,351
12/31/2014 [3]	6,910	$ 235,250	3,524	$ 66,621	131,638	$ 3,804,651	4.6%	$ 28,902

[1] *Since last valuation date.*

[2] *Annual allowances reflect estimated adjustments to retiree benefits due to the implementation of the Strunk v. PERB, et al. and City of Eugene v. State of Oregon, PERB, et al. decisions.*

[3] *Annual allowances reflect estimated adjustments to retiree benefits for the Moro v. State of Oregon decision.*

Actuarial Schedules

Schedule of Funding Progress by Rate Pool

The liabilities and assets resulting from the last six actuarial valuations are as follows **(dollar amounts in millions)**:

Actuarial Valuation Date	Actuarial Value of Assets[1,2] (a)	Actuarial Accrued Liability (AAL)[2] (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll[3] (c)	UAAL as a % of Covered Payroll ((b-a)/c)
Tier 1/Tier 2 State & Local Government Rate Pool						
12/31/2009 [4]	$ 25,068.8	$ 29,029.1	$ 3,960.3	86.4%	$ 3,465.1	114.3%
12/31/2010	$ 26,499.5	$ 30,285.0	$ 3,785.4	87.5%	$ 3,333.1	113.6%
12/31/2011 [4]	$ 25,679.2	$ 31,109.1	$ 5,429.9	82.5%	$ 3,179.3	170.8%
12/31/2012 [5]	$ 28,022.3	$ 30,601.9	$ 2,579.5	91.6%	$ 3,043.7	84.7%
12/31/2013 [4]	$ 30,590.2	$ 31,738.8	$ 1,148.6	96.4%	$ 2,915.9	39.4%
12/31/2014 [6]	$ 31,162.6	$ 37,169.9	$ 6,007.3	83.8%	$ 2,827.9	212.4%
Tier 1/Tier 2 School District Rate Pool						
12/31/2009	$ 19,388.0	$ 22,517.6	$ 3,129.6	86.1%	$ 2,079.2	150.5%
12/31/2010	$ 20,343.5	$ 23,303.3	$ 2,959.8	87.3%	$ 2,027.5	146.0%
12/31/2011	$ 19,668.2	$ 23,973.7	$ 4,305.5	82.0%	$ 1,880.7	228.9%
12/31/2012 [5]	$ 21,202.1	$ 22,908.0	$ 1,705.8	92.6%	$ 1,769.0	96.4%
12/31/2013	$ 23,063.3	$ 23,392.6	$ 329.4	98.6%	$ 1,663.0	19.8%
12/31/2014 [6]	$ 23,361.2	$ 27,059.9	$ 3,698.7	86.3%	$ 1,626.0	227.5%
Tier 1/Tier 2 Independent Employers and Judiciary						
12/31/2009 [4]	$ 3,926.7	$ 4,665.9	$ 739.3	84.2%	$ 579.1	127.7%
12/31/2010	$ 4,189.4	$ 4,913.1	$ 723.7	85.3%	$ 569.7	127.0%
12/31/2011 [4]	$ 4,083.2	$ 5,069.8	$ 986.6	80.5%	$ 547.9	180.1%
12/31/2012 [5]	$ 4,479.4	$ 5,043.4	$ 564.0	88.8%	$ 529.0	106.6%
12/31/2013 [4]	$ 4,851.0	$ 5,164.3	$ 313.3	93.9%	$ 494.8	63.3%
12/31/2014 [6]	$ 4,967.4	$ 6,104.9	$ 1,137.4	81.4%	$ 479.2	237.4%
OPSRP Rate Pool						
12/31/2009	$ 445.4	$ 535.5	$ 90.1	83.2%	$ 2,388.8	3.8%
12/31/2010	$ 659.0	$ 767.6	$ 108.6	85.8%	$ 2,819.8	3.9%
12/31/2011	$ 840.5	$ 986.4	$ 145.9	85.2%	$ 2,942.6	5.0%
12/31/2012 [5]	$ 1,190.0	$ 1,795.6	$ 605.5	66.3%	$ 3,249.2	18.6%
12/31/2013	$ 1,630.2	$ 2,243.3	$ 613.2	72.7%	$ 3,598.1	17.0%
12/31/2014 [6]	$ 2,024.6	$ 3,064.1	$ 1,039.5	66.1%	$ 4,182.7	24.9%
Postemployment Healthcare Benefits - Retirement Health Insurance Account						
12/31/2009	$ 214.1	$ 511.2	$ 297.1	41.9%	$ 6,123.4	4.9%
12/31/2010	$ 232.3	$ 547.1	$ 314.8	42.5%	$ 5,930.3	5.3%
12/31/2011	$ 239.6	$ 461.1	$ 221.5	52.0%	$ 5,607.9	3.9%
12/31/2012	$ 291.6	$ 471.8	$ 180.2	61.8%	$ 5,341.7	3.4%
12/31/2013	$ 353.5	$ 473.6	$ 120.0	74.7%	$ 5,073.7	2.4%
12/31/2014	$ 395.9	$ 468.4	$ 72.5	84.5%	$ 4,933.1	1.5%
Postemployment Healthcare Benefits - Retiree Health Insurance Premium Account						
12/31/2009	$ 6.4	$ 24.5	$ 18.2	25.9%	$ 1,705.1	1.1%
12/31/2010	$ 5.7	$ 33.9	$ 28.2	16.8%	$ 1,603.3	1.8%
12/31/2011	$ 4.5	$ 34.4	$ 29.9	13.2%	$ 1,539.5	1.9%
12/31/2012	$ 4.4	$ 60.3	$ 55.9	7.4%	$ 1,478.4	3.8%
12/31/2013	$ 5.2	$ 61.2	$ 55.9	8.6%	$ 1,434.5	3.9%
12/31/2014	$ 7.2	$ 70.5	$ 63.3	10.2%	$ 1,406.3	4.5%

Notes:

1 *Side account assets are included with Tier 1/Tier 2 assets.*

2 *Excludes effect of Multnomah Fire District (net UAAL of $181 million as of 12/31/2014).*

3 *Covered payroll shown is payroll for members of the rate pool benefiting from the specified program. For example, Tier 1/Tier 2 School District payroll is only payroll for Tier 1/Tier 2 members and excludes OPSRP. However, UAL is amortized using combined Tier 1/Tier 2 and OPSRP*

4 *Reflects the transfer in assets and liabilities for new employers that joined the SLGRP effective January 1 following the valuation date.*

5 *The 12/31/2012 valuation reflects the benefit changes enacted by the 2013 Oregon Legislature in Senate Bills 822 and 861, as well as a change in cost method to Entry Age Normal.*

6 *The 12/31/2014 valuation reflects benefit changes from the Oregon Supreme Court's ruling in Moro v. State of Oregon, which overturned portions of Senate Bills 822 and 861.*

Actuarial Schedules

Solvency Test

Pension and Retiree Healthcare Plans Combined

(dollar amounts in millions)

The schedule below shows results from the defined benefit pension plans and retiree healthcare plans on a consolidated basis. Results are also shown separately for each program: Tier 1/Tier 2, OPSRP, and retiree healthcare. Note that the defined benefit pension plan constitutes over 99% of the consolidated assets and liabilities.

	Actuarial Accrued Liability[1]					
Valuation Date[2]	Active Member Contributions (1)	Retired Members and Beneficiaries (2)	Other Members (3)	Valuation Assets[1,3]	Portion of Actuarial Accrued Liabilities Covered by Assets (1)	(2)	(3)
12/31/1995	$ 5,753.0	$ 7,492.8	$ 10,002.8	$ 20,957.6	100%	100%	77%
12/31/1997	$ 8,135.4	$ 9,994.9	$ 13,534.6	$ 29,108.2	100%	100%	81%
12/31/1999	$ 8,238.1	$ 14,333.7	$ 18,336.1	$ 39,964.8	100%	100%	95%
12/31/2000	$ 10,142.5	$ 15,664.1	$ 17,543.9	$ 41,804.6	100%	100%	91%
12/31/2001	$ 10,252.8	$ 17,465.9	$ 18,229.0	$ 39,852.2	100%	100%	67%
12/31/2001 [4]	$ 10,252.8	$ 17,340.0	$ 10,228.8	$ 39,852.2	100%	100%	120%
12/31/2002 [4]	$ 9,940.7	$ 19,339.0	$ 10,240.8	$ 36,316.8	100%	100%	69%
12/31/2003 [4]	$ 9,005.8	$ 23,625.9	$ 11,993.9	$ 42,874.4	100%	100%	85%
12/31/2004 [5]	$ 9,073.0	$ 25,363.0	$ 13,547.6	$ 45,735.3	100%	100%	83%
12/31/2005 [6,7]	$ 9,169.7	$ 26,602.4	$ 14,044.7	$ 51,569.6	100%	100%	112%
12/31/2006	$ 9,410.8	$ 27,711.3	$ 14,666.2	$ 56,844.8	100%	100%	134%
12/31/2007 [7]	$ 9,225.0	$ 29,157.3	$ 15,011.8	$ 59,586.4	100%	100%	141%
12/31/2008	$ 8,341.5	$ 30,537.7	$ 15,895.7	$ 43,710.2	100%	100%	30%
12/31/2009 [7]	$ 8,392.0	$ 32,484.2	$ 16,470.1	$ 48,949.7	100%	100%	49%
12/31/2010	$ 8,407.9	$ 34,432.5	$ 17,070.2	$ 51,821.6	100%	100%	53%
12/31/2011 [7]	$ 7,779.7	$ 37,362.4	$ 16,551.8	$ 50,412.4	100%	100%	32%
12/31/2012 [8]	$ 7,704.9	$ 36,759.3	$ 16,473.1	$ 55,080.1	100%	100%	64%
12/31/2013 [7]	$ 7,120.1	$ 39,531.5	$ 16,476.8	$ 60,372.9	100%	100%	83%
12/31/2014 [9]	$ 6,950.4	$ 46,576.7	$ 20,470.8	$ 61,798.3	100%	100%	40%

[1] *Includes effect of Multnomah Fire District (net UAAL of $181 million as of 12/31/2014).*

[2] *An extensive revision of the actuarial assumptions occurs prior to each odd-year valuation; therefore, the figures are not directly comparable. Effective with the 12/31/2006 valuation, revisions to actuarial assumptions occur prior to each even-year valuation.*

[3] *Effective with the 12/31/2002 valuation, includes the value of UAL Lump Sum Side Accounts.*

[4] *The 2001 valuation was revised to include the impact of PERS Reform Legislation enacted in 2003. Figures through 12/31/2003 do not reflect the judicial review or subsequent Board action.*

[5] *Effective with the 12/31/2004 valuation, the Oregon Supreme Court rulings in Strunk v. PERB, et al. (Issued March 8, 2005) and City of Eugene v. State of Oregon, PERB, et al. (Issued August 11, 2005) are reflected, the cost method was changed from Entry Age Normal to Projected Unit Credit, and the actuarial value of assets was changed from a 4-year smoothed value to market value*

[6] *Assets and liabilities for OPSRP are first valued in the 2005 valuation.*

[7] *Reflects the transfer in assets and liabilities for new employers that joined the SLGRP effective January 1 following the valuation date.*

[8] *The 12/31/2012 valuation reflects the benefit changes enacted by the 2013 Oregon Legislature in Senate Bills 822 and 861, as well as a change in cost method to Entry Age Normal.*

[9] *The 12/31/2014 valuation reflects benefit changes from the Oregon Supreme Court's ruling in Moro v. State of Oregon, which overturned portions of Senate Bills 822 and 861.*

Actuarial Schedules

Solvency Test

Tier 1/Tier 2 Pension

(dollar amounts in millions)

Valuation Date	Actuarial Accrued Liability: Active Member Contributions (1)	Retired Members and Beneficiaries (2)	Other Members (3)	Valuation Assets	Portion of Actuarial Accrued Liabilities Covered by Assets (1)	(2)	(3)
12/31/2009 [1]	$ 8,392.0	$ 32,072.7	$ 15,810.4	$ 48,283.8	100%	100%	49%
12/31/2010	$ 8,407.9	$ 34,000.0	$ 16,154.0	$ 50,924.5	100%	100%	53%
12/31/2011 [1]	$ 7,779.7	$ 37,001.1	$ 15,431.2	$ 49,327.7	100%	100%	29%
12/31/2012 [2]	$ 7,704.9	$ 36,377.3	$ 14,527.4	$ 53,594.0	100%	100%	65%
12/31/2013 [1]	$ 7,120.1	$ 39,116.2	$ 14,114.1	$ 58,384.0	100%	100%	86%
12/31/2014 [3]	$ 6,950.4	$ 46,113.5	$ 17,331.0	$ 59,370.6	100%	100%	36%

[1] Reflects the transfer in assets and liabilities for new employers that joined the SLGRP effective January 1 following the valuation date.

[2] The 12/31/2012 valuation reflects the benefit changes enacted by the 2013 Oregon Legislature in Senate Bills 822 and 861, as well as a change in cost method to Entry Age Normal.

[3] The 12/31/2014 valuation reflects benefit changes from the Oregon Supreme Court's ruling in Moro v. State of Oregon, which overturned portions of Senate Bills 822 and 861.

OPSRP Pension

(dollar amounts in millions)

Valuation Date	Actuarial Accrued Liability: Active Member Contributions (1)	Retired Members and Beneficiaries (2)	Other Members (3)	Valuation Assets	Portion of Actuarial Accrued Liabilities Covered by Assets (1)	(2)	(3)
12/31/2009	$ 0.0	$ 1.5	$ 534.0	$ 445.4	100%	100%	83%
12/31/2010	$ 0.0	$ 5.7	$ 762.0	$ 659.0	100%	100%	86%
12/31/2011	$ 0.0	$ 15.2	$ 971.3	$ 840.5	100%	100%	85%
12/31/2012 [1]	$ 0.0	$ 28.6	$ 1,766.9	$ 1,190.0	100%	100%	66%
12/31/2013	$ 0.0	$ 51.2	$ 2,192.1	$ 1,630.2	100%	100%	72%
12/31/2014 [2]	$ 0.0	$ 92.4	$ 2,971.6	$ 2,024.6	100%	100%	65%

[1] The 12/31/2012 valuation reflects the benefit changes enacted by the 2013 Oregon Legislature in Senate Bills 822 and 861, as well as a change in cost method to Entry Age Normal.

[2] The 12/31/2014 valuation reflects benefit changes from the Oregon Supreme Court's ruling in Moro v. State of Oregon, which overturned portions of Senate Bills 822 and 861.

Retiree Healthcare (RHIA and RHIPA)

(dollar amounts in millions)

Valuation Date	Actuarial Accrued Liability: Active Member Contributions (1)	Retired Members and Beneficiaries (2)	Other Members (3)	Valuation Assets	Portion of Actuarial Accrued Liabilities Covered by Assets (1)	(2)	(3)
12/31/2009	$ 0.0	$ 410.0	$ 125.8	$ 220.5	0%	54%	0%
12/31/2010	$ 0.0	$ 426.8	$ 154.3	$ 238.0	0%	56%	0%
12/31/2011	$ 0.0	$ 346.1	$ 149.4	$ 244.1	0%	71%	0%
12/31/2012 [1]	$ 0.0	$ 353.4	$ 178.8	$ 296.0	0%	84%	0%
12/31/2013	$ 0.0	$ 364.1	$ 170.6	$ 358.8	0%	99%	0%
12/31/2014	$ 0.0	$ 370.8	$ 168.2	$ 403.1	0%	100%	19%

[1] The 12/31/2012 valuation reflects a change in cost method to Entry Age Normal.

Actuarial Schedules

Analysis of Financial Experience

The schedule below shows results from the defined benefit pension plans and retiree healthcare plans on a consolidated basis. Results are also shown separately for each program below.

Gains and Losses in Unfunded Accrued Liability Resulting from Differences Between Assumed Experience and Actual Experience and Assumption Changes

(dollar amounts in millions)

	$ Gain (or Loss) for Year	
Pension and Retiree Healthcare Plans	**2014**	**2013**
Type of Activity		
Retirements from Active Status	$ 22.1	$ (91.7)
Active Mortality and Withdrawal	(52.7)	(39.7)
Pay Increases	(70.1)	19.7
Contributions	84.4	62.3
Interest Crediting Experience	18.6	(125.0)
Investment Income	(186.1)	3,524.3
Retirement, Mortality and Lump Sums from Dormant Status	3.3	35.8
Retiree and Beneficiary Mortality	(148.8)	(121.7)
COLA Experience	0.0	0.0
New Entrants	(75.2)	(53.6)
Other	(23.1)	(32.6)
Gain (or Loss) During Year From Financial Experience	**$ (427.8)**	**$ 3,177.8**
Non-Recurring Items		
Assumption Changes	(3,662.8)	0.0
Plan Changes	(5,097.7)	0.0
Composite Gain (or Loss) During Year	**$ (9,188.3)**	**$ 3,177.8**

The schedules below show results from the Tier 1/Tier 2 and OPSRP pension programs separately.

Gains and Losses in Unfunded Accrued Liability Resulting from Differences Between Assumed Experience and Actual Experience and Assumption Changes

	$ Gain (or Loss) for Year	
Tier 1/Tier 2 Pension Program	**2014**	**2013**
Type of Activity		
Retirements from Active Status	$ 18.3	$ (93.8)
Active Mortality and Withdrawal	(40.9)	(34.2)
Pay Increases	(37.3)	26.0
Contributions	59.8	54.1
Interest Crediting Experience	18.6	(125.0)
Investment Income	(186.3)	3,378.5
Retirement, Mortality and Lump Sums from Dormant Status	0.9	35.2
Retiree and Beneficiary Mortality	(148.4)	(121.1)
New Entrants	(0.7)	(0.5)
Other	(34.7)	(35.9)
Gain (or Loss) During Year From Financial Experience	**$ (350.8)**	**$ 3,083.3**
Non-Recurring Items		
Assumption Changes	(3,468.0)	0.0
Plan Changes	(5,027.0)	0.0
Composite Gain (or Loss) During Year	**$ (8,845.8)**	**$ 3,083.3**

	$ Gain (or Loss) for Year	
OPSRP Pension Program	**2014**	**2013**
Retirements from Active Status	$ 3.8	$ 2.1
Active Mortality and Withdrawal	(11.8)	(5.5)
Pay Increases	(32.9)	(6.3)
Contributions	22.3	8.8
Investment Income	2.6	122.3
Retirement, Mortality and Lump Sums from Dormant Status	2.4	0.6
Retiree and Beneficiary Mortality	(0.4)	(0.6)
New Entrants	(74.5)	(53.6)
Other	0.4	(4.3)
Gain (or Loss) During Year From Financial Experience	**$ (88.1)**	**$ 63.5**
Non-Recurring Items		
Assumption Changes	(188.7)	0.0
Plan Changes	(70.7)	0.0
Composite Gain (or Loss) During Year	**$ (347.5)**	**$ 63.5**

The schedule below shows results from the retiree healthcare programs.

Gains and Losses in Unfunded Accrued Liability Resulting from Differences Between Assumed Experience and Actual Experience and Assumption Changes

	$ Gain (or Loss) for Year	
Retiree Healthcare Program	**2014**	**2013**
Contributions	$ 2.3	$ (0.6)
Investment Income	(2.4)	23.5
Other	11.2	8.1
Gain (or Loss) During Year From Financial Experience	**11.1**	**30.9**
Non-Recurring Items		
Assumption Changes	(6.1)	0.0
Composite Gain (or Loss) During Year	**$ 5.0**	**$ 30.9**

Actuarial Schedules

Schedules of Funding Progress

(dollar amounts in millions)

Actuarial Valuation Date	Actuarial Value of Assets[1] (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
Pension Benefits - Tier 1/Tier 2 and OPSRP[2]						
12/31/2003 [3]	42,753.3	44,078.1	1,324.8	97.0%	6,248.5	21.2%
12/31/2004 [4]	45,581.1	47,398.6	1,817.5	96.2%	6,772.4 [5]	26.8%
12/31/2005 [5, 6]	51,382.6	49,294.0	(2,088.6)	104.2%	6,791.9	(30.8%)
12/31/2006	56,616.5	51,252.9	(5,363.5)	110.5%	7,326.8	(73.2%)
12/31/2007 [6]	59,327.8	52,871.2	(6,456.7)	112.2%	7,721.8	(83.6%)
12/31/2008	43,520.6	54,259.5	10,738.9	80.2%	8,130.1	132.1%
12/31/2009 [6]	48,729.2	56,810.6	8,081.4	85.8%	8,512.2	94.9%
12/31/2010	51,583.6	59,329.5	7,746.0	86.9%	8,750.1	88.5%
12/31/2011 [6]	50,168.2	61,198.4	11,030.2	82.0%	8,550.5	129.0%
12/31/2012 [7]	54,784.1	60,405.2	5,621.1	90.7%	8,590.9	65.4%
12/31/2013 [6]	60,014.1	62,593.6	2,579.5	95.9%	8,671.8	29.7%
12/31/2014 [8]	61,395.2	73,458.9	12,063.7	83.6%	9,115.8	132.3%
Postemployment Healthcare Benefits - Retirement Health Insurance Account						
12/31/2003 [3]	117.1	522.5	405.4	22.4%	6,248.5	6.5%
12/31/2004 [4]	148.0	556.9	408.9	26.6%	6,772.4 [5]	6.0%
12/31/2005	181.0	495.9	314.9	36.5%	6,791.9	4.6%
12/31/2006	221.3	511.8	290.5	43.2%	7,326.8	4.0%
12/31/2007	250.8	499.6	248.8	50.2%	7,721.8	3.2%
12/31/2008	183.8	494.0	310.2	37.2%	8,130.1	3.8%
12/31/2009	214.1	511.2	297.1	41.9%	8,512.2	3.5%
12/31/2010	232.3	547.1	314.8	42.5%	8,750.1	3.6%
12/31/2011	239.6	461.1	221.5	52.0%	8,550.5	2.6%
12/31/2012	291.6	471.8	180.2	61.8%	8,590.9	2.1%
12/31/2013	353.5	473.6	120.0	74.7%	8,671.8	1.4%
12/31/2014	395.9	468.4	72.5	84.5%	9,115.8	0.8%
Postemployment Healthcare Benefits - Retiree Health Insurance Premium Account						
12/31/2003 [3]	4.0	25.0	21.0	16.0%	1,711.9	1.2%
12/31/2004 [4]	5.2	28.2	23.0	18.4%	1,851.4 [5]	1.2%
12/31/2005	6.1	27.0	20.9	22.7%	1,827.0	1.1%
12/31/2006	7.0	23.4	16.4	30.0%	1,946.8	0.8%
12/31/2007	7.8	23.3	15.5	33.6%	2,080.2	0.7%
12/31/2008	5.7	21.3	15.6	26.7%	2,217.9	0.7%
12/31/2009	6.4	24.5	18.2	25.9%	2,371.8	0.8%
12/31/2010	5.7	33.9	28.2	16.8%	2,379.7	1.2%
12/31/2011	4.5	34.4	29.9	13.2%	2,376.9	1.3%
12/31/2012	4.4	60.3	55.9	7.4%	2,432.4	2.3%
12/31/2013	5.2	61.2	55.9	8.6%	2,531.5	2.2%
12/31/2014	7.2	70.5	63.3	10.2%	2,718.9	2.3%

Notes:

[1] *Side account assets are included with pension assets.*

[2] *Includes UAAL for Multnomah Fire District ($181 million as of 12/31/2014).*

[3] *The 2001 valuation was revised to include the impact of PERS Reform Legislation enacted in 2003. Figures through 12/31/2003 do not reflect the judicial review or subsequent Board action.*

[4] *Effective with the 2004 valuation, the Oregon Supreme Court rulings in Strunk v. PERB, et al. (Issued March 8, 2005) and City of Eugene v. State of Oregon, PERB, et al. (Issued August 11, 2005) are reflected, the cost method was changed from Entry Age Normal to Projected Unit Credit, and the actuarial value of assets was changed from a 4-year smoothed value to market value.*

[5] *Assets and liabilities for OPSRP are first valued in the 2005 valuation. OPSRP payroll, however, was included in the amortization of the UAAL beginning with the 2004 valuation.*

[6] *Reflects the transfer in assets and liabilities for new employers that joined the SLGRP effective January 1 following the valuation date*

[7] *The 12/31/2012 valuation reflects the benefit changes enacted by the 2013 Oregon Legislature in Senate Bills 822 and 861, as well as a change in cost method to Entry Age Normal.*

[8] *The 12/31/2014 valuation reflects benefit changes from the Oregon Supreme Court's ruling in Moro v. State of Oregon, which overturned portions of Senate Bills 822 and 861.*

GASB No. 43 Required Supplementary Information

Schedules of Employer Contributions

(dollar amounts in millions)

Actuarial Valuation Date	Annual Required Contribution	Percentage Contributed
Postemployment Healthcare Benefits - Retirement Health Insurance Account		
12/31/2006	$44.3	89%
12/31/2007	$38.8	91%
12/31/2008	$33.0	85%
12/31/2009	$29.8	87%
12/31/2010	$26.5	83%
12/31/2011	$37.0	88%
12/31/2012	$47.5	101%
12/31/2013	$47.1	101%
12/31/2014	$49.0	101%
Postemployment Healthcare Benefits - Retiree Health Insurance Premium Account		
12/31/2006	$2.5	90%
12/31/2007	$2.7	79%
12/31/2008	$2.9	63%
12/31/2009	$2.6	68%
12/31/2010	$2.3	64%
12/31/2011	$2.8	83%
12/31/2012	$3.4	101%
12/31/2013	$4.5	104%
12/31/2014	$6.3	101%

GASB No. 43 Required Supplementary Information

Notes to Required Supplementary Schedules

Valuation Date:	December 31, 2014
Actuarial Cost Method:	Entry Age Normal
Amortization Method	The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized as a level percentage of combined payroll over a closed 10 year period.
Equivalent Single Amortization Period:	
RHIA	3 years
RHIPA	9 years

The Equivalent Single Amortization Period (ESAP) calculation is performed biennially with each rate-setting actuarial valuation. This was calculated most recently in the December 31, 2013 actuarial valuation and the ESAPs for that valuation are shown above. The ARCs for the July 2011-June 2013 and July 2013-June 2015 biennia were based on the December 31, 2009 and December 31, 2011 valuations, respectively.

Actuarial Assumptions:	
Investment Rate of Return:	7.50 percent
Payroll Growth:	3.50 percent
Consumer Price Inflation:	2.50 percent
Health Cost Inflation:	Graded from 7.0 percent in 2015 to 4.4 percent in 2094.
Method used to Value Assets:	The actuarial value of assets equals the fair market value of assets.

Data Exhibits

This valuation is based upon the membership of the System as of December 31, 2014.

System Wide Data Exhibits

Valuation Pay and Census Exhibit

The following tables illustrate the breakdown of member counts and valuation payroll for the SLGRP, School District Pool, and independent employers.

SLGRP

	General Service	Police & Fire	Total
Tier 1	$ 1,154.0	$ 220.0	$ 1,374.1
Tier 2	1,158.2	295.7	1,453.9
Tier 1/Tier 2 Valuation Payroll	2,312.2	515.7	2,827.9
OPSRP Valuation Payroll	2,195.6	367.3	2,562.9
Combined Valuation Payroll	**$ 4,507.8**	**$ 883.0**	**$ 5,390.8**
Amounts in millions			

	December 31				
	2014				2013
	Tier 1	Tier 2	OPSRP	Total	
Active Members in the Pool					
General Service	15,701	17,944	42,768	76,413	74,862
Police & Fire	2,443	3,724	5,342	11,509	11,350
Total	18,144	21,668	48,110	87,922	86,212
Average Age	55.4	49.9	42.2	46.8	46.9
Average Service	23.8	14.2	5.3	11.3	11.4
Average prior year Covered Salary	$ 77,526	$ 68,167	$ 50,106	$ 60,216	$ 58,567
Active Members outside the Pool with previous Segments in the Pool					
General Service	3,520	2,535		6,055	6,423
Police & Fire	326	332		658	676
Total	3,846	2,867		6,713	7,099
Average Age	54.0	46.9		50.9	50.5
Average Service in the Pool	2.8	2.3		2.6	2.5
Inactive Members[1]					
General Service	10,433	8,752	5,202	24,387	23,653
Police & Fire	697	714	350	1,761	1,642
Total	11,130	9,466	5,552	26,148	25,295
Average Age	57.3	51.8	46.1	53.0	52.7
Average Monthly Benefit	$ 1,901	$ 695	$ 353	$ 1,136	$ 1,129
Retired Members and Beneficiaries[1]					
General Service	62,875	4,715	907	68,497	66,442
Police & Fire	8,778	663	96	9,537	9,246
Total	71,653	5,378	1,003	78,034	75,688
Average Age	70.8	66.4	65.9	70.5	70.1
Average Monthly Benefit[2]	$ 2,143	$ 790	$ 396	$ 2,027	$ 1,978
Grand Total Number of Members	**104,773**	**39,379**	**54,665**	**198,817**	**194,294**

[1] In these exhibits, Inactives and Retirees are counted by members with service in each rate pool. As a result, individual members with service segments in more than one rate pool will be included in more than one exhibit.

[2] The average monthly benefit as of December 31, 2014 reflects an estimated adjustment for the affect of the Supreme Court decision in Moro v. State of Oregon.

School District Pool

	General Service	Police & Fire	Total
Tier 1	$ 762.6	$ 0.9	$ 763.5
Tier 2	861.2	1.3	862.5
Tier 1/Tier 2 Valuation Payroll	1,623.8	2.2	1,626.0
OPSRP Valuation Payroll	1,245.7	1.1	1,246.8
Combined Valuation Payroll	**$ 2,869.5**	**$ 3.2**	**$ 2,872.7**
Amounts in millions			

	December 31 2014 Tier 1	Tier 2	OPSRP	Total	2013
Active Members					
General Service	13,213	17,071	33,857	64,141	63,092
Police & Fire	14	22	24	60	62
Total	13,227	17,093	33,881	64,201	63,154
Average Age	55.0	49.4	42.7	47.0	47.1
Average Service	23.1	13.9	5.9	11.6	11.6
Average prior year Covered Salary	$ 58,464	$ 50,557	$ 35,033	$ 43,994	$ 42,474
Active Members outside the Pool with previous Segments in the Pool					
General Service	1,543	1,311		2,854	3,001
Police & Fire	8	7		15	13
Total	1,551	1,318		2,869	3,014
Average Age	55.5	48.1		52.1	51.6
Average Service	5.3	3.8		4.6	4.4
Inactive Members[1]					
General Service	6,688	6,945	3,787	17,420	17,052
Police & Fire	16	21	2	39	40
Total	6,704	6,966	3,789	17,459	17,092
Average Age	57.9	51.1	46.6	52.8	52.4
Average Monthly Benefit	$ 1,549	$ 534	$ 279	$ 869	$ 868
Retired Members and Beneficiaries[1]					
General Service	60,499	2,782	381	63,662	62,351
Police & Fire	183	28	4	215	207
Total	60,682	2,810	385	63,877	62,558
Average Age	71.9	66.0	65.8	71.6	71.3
Average Monthly Benefit[2]	$ 2,166	$ 631	$ 344	$ 2,087	$ 2,065
Grand Total Number of Members	**82,164**	**28,187**	**38,055**	**148,406**	**145,818**

[1] *In these exhibits, Inactives and Retirees are counted by members with service in each rate pool. As a result, individual members with service segments in more than one rate pool will be included in more than one exhibit.*

[2] *The average monthly benefit as of December 31, 2014 reflects an estimated adjustment for the affect of the Supreme Court decision in Moro v. State of Oregon.*

Independents

	General Service		Police & Fire		Total	
Tier 1	$	154.7	$	75.5	$	230.1
Tier 2		161.4		87.6		249.0
Tier 1/Tier 2 Valuation Payroll		316.1		163.1		479.2
OPSRP Valuation Payroll		279.0		93.9		373.0
Combined Valuation Payroll	**$**	**595.1**	**$**	**257.1**	**$**	**852.2**
Amounts in millions						

	December 31				
	2014				2013
	Tier 1	Tier 2	OPSRP	Total	
Active Members					
General Service	2,050	2,467	5,287	9,804	9,920
Police & Fire	753	952	1,227	2,932	2,899
Total	2,803	3,419	6,514	12,736	12,819
Average Age	54.4	48.6	41.7	46.3	46.3
Average Service	22.7	14.2	5.4	11.6	11.5
Average prior year Covered Salary	$ 83,862	$ 73,618	$ 53,748	$ 65,710	$ 63,475
Active Members outside the Pool with previous Segments in the Pool					
General Service	1,179	1,161		2,340	2,401
Police & Fire	267	289		556	572
Total	1,446	1,450		2,896	2,973
Average Age	53.6	46.9		50.2	49.6
Average Service	4.5	3.3		3.9	3.6
Inactive Members[1]					
General Service	1,403	1,417	702	3,522	3,377
Police & Fire	231	178	75	484	453
Total	1,634	1,595	777	4,006	3,830
Average Age	56.2	51.7	47.7	52.7	52.3
Average Monthly Benefit	$ 1,446	$ 594	$ 353	$ 895	$ 883
Retired Members and Beneficiaries[1]					
General Service	8,930	859	131	9,920	9,563
Police & Fire	2,835	108	13	2,956	2,851
Total	11,765	967	144	12,876	12,414
Average Age	69.6	65.6	65.2	69.2	68.9
Average Monthly Benefit[2]	$ 2,104	$ 738	$ 413	$ 1,982	$ 1,946
Grand Total Number of Members	**17,648**	**7,431**	**7,435**	**32,514**	**32,036**

[1] In these exhibits, Inactives and Retirees are counted by members with service in each rate pool. As a result, individual members with service segments in more than one rate pool will be included in more than one exhibit.

[2] The average monthly benefit as of December 31, 2014 reflects an estimated adjustment for the affect of the Supreme Court decision in Moro v. State of Oregon.

Total

	General Service	Police & Fire	Total
Tier 1	$ 2,071.2	$ 296.4	$ 2,367.7
Tier 2	2,180.8	384.6	2,565.4
Tier 1/Tier 2 Valuation Payroll	4,252.1	681.0	4,933.1
OPSRP Valuation Payroll	3,720.3	462.3	4,182.6
Combined Valuation Payroll	**$ 7,972.4**	**$ 1,143.3**	**$ 9,115.7**
Amounts in millions			

	December 31				
	2014				2013
	Tier 1	Tier 2	OPSRP	Total	
Active Members					
General Service	30,964	37,482	81,912	150,358	147,874
Police & Fire	3,210	4,698	6,593	14,501	14,311
Total	34,174	42,180	88,505	164,859	162,185
Average Age	55.2	49.6	42.3	46.9	46.9
Average Service	23.5	14.1	5.5	11.4	11.5
Average prior year Covered Salary	$ 70,668	$ 61,473	$ 44,604	$ 54,323	$ 52,688
Inactive Members[1]					
General Service	18,524	17,114	9,691	45,329	44,082
Police & Fire	944	913	427	2,284	2,135
Total	19,468	18,027	10,118	47,613	46,217
Average Age	57.4	51.5	46.4	52.9	52.5
Average Monthly Benefit	$ 1,742	$ 624	$ 326	$ 1,018	$ 1,012
Retired Members and Beneficiaries[1]					
General Service	132,304	8,356	1,419	142,079	138,356
Police & Fire	11,796	799	113	12,708	12,304
Total	144,100	9,155	1,532	154,787	150,660
Average Age	71.2	66.2	65.8	70.8	70.5
Average Monthly Benefit[2]	$ 2,149	$ 735	$ 384	$ 2,048	$ 2,011
Grand Total Number of Members	**197,742**	**69,362**	**100,155**	**367,259**	**359,062**

[1] *In these exhibits, Inactives and Retirees are counted by members with service in each rate pool. As a result, individual members with service segments in more than one rate pool are counted more than once in this exhibit.*

[2] *The average monthly benefit as of December 31, 2014 reflects an estimated adjustment for the affect of the Supreme Court decision in Moro v. State of Oregon.*

Age/Service and Prior Year Covered Payroll by Tier and Job Class

Tier 1 General Service Active Members

		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20		0	0	0	0	0	0	0	0	0	**0**
	$	0	0	0	0	0	0	0	0	0	**0**
20-24		0	0	0	0	0	0	0	0	0	**0**
	$	0	0	0	0	0	0	0	0	0	**0**
25-29		0	0	0	0	0	0	0	0	0	**0**
	$	0	0	0	0	0	0	0	0	0	**0**
30-34		1	0	0	0	0	0	0	0	0	**1**
	$	127,385	0	0	0	0	0	0	0	0	**127,385**
35-39		1	2	3	75	5	0	0	0	0	**86**
	$	127,471	74,842	55,059	60,861	54,762	0	0	0	0	**61,404**
40-44		7	30	77	825	368	11	0	0	0	**1,318**
	$	79,400	31,522	53,126	68,401	69,592	73,334	0	0	0	**67,101**
45-49		21	62	148	1,442	2,219	393	6	0	0	**4,291**
	$	105,093	55,399	48,039	69,118	72,492	68,983	79,077	0	0	**70,115**
50-54		14	68	153	1,488	2,850	2,301	326	10	0	**7,210**
	$	87,256	47,914	55,690	64,553	70,450	73,586	72,060	68,637	0	**69,811**
55-59		13	57	160	1,697	3,403	2,547	1,112	213	2	**9,204**
	$	96,217	45,162	55,739	58,544	66,091	72,811	75,501	70,815	65,317	**67,538**
60-64		4	42	109	1,155	2,633	1,767	728	299	47	**6,784**
	$	130,035	65,861	61,167	59,131	61,556	71,434	77,783	77,050	66,380	**66,234**
65-69		2	6	27	311	700	443	182	88	22	**1,781**
	$	71,643	68,266	66,896	62,749	65,055	71,726	77,961	89,965	83,123	**69,130**
70-74		1	2	5	38	76	46	28	20	14	**230**
	$	12,030	14,669	51,545	52,695	59,680	66,613	85,859	93,672	89,925	**67,121**
75+		0	0	4	10	20	9	7	1	8	**59**
	$	0	0	44,621	36,590	54,991	55,378	95,424	5,088	79,555	**58,510**
Total		**64**	**269**	**686**	**7,041**	**12,274**	**7,517**	**2,389**	**631**	**93**	**30,964**
	$	**96,336**	**50,437**	**54,977**	**63,378**	**67,271**	**72,403**	**76,103**	**77,026**	**74,995**	**68,176**

Tier 2 General Service Active Members

		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20		0	0	0	0	0	0	0	0	0	**0**
	$	0	0	0	0	0	0	0	0	0	**0**
20-24		0	0	0	0	0	0	0	0	0	**0**
	$	0	0	0	0	0	0	0	0	0	**0**
25-29		1	4	5	0	0	0	0	0	0	**10**
	$	13,661	40,805	40,156	0	0	0	0	0	0	**37,766**
30-34		10	72	472	21	0	0	0	0	0	**575**
	$	15,454	48,715	51,407	54,933	0	0	0	0	0	**50,573**
35-39		21	311	3,426	601	0	0	0	0	0	**4,359**
	$	22,725	44,108	61,095	61,151	0	0	0	0	0	**59,706**
40-44		11	294	3,974	2,541	0	0	0	0	0	**6,820**
	$	19,336	43,428	63,689	68,267	0	0	0	0	0	**64,450**
45-49		10	175	3,637	2,498	0	0	0	0	0	**6,320**
	$	30,514	42,562	60,881	66,537	0	0	0	0	0	**62,561**
50-54		13	117	3,784	2,594	0	0	0	0	0	**6,508**
	$	26,177	45,543	55,321	60,797	0	0	0	0	0	**57,269**
55-59		10	94	3,603	2,854	0	0	0	0	0	**6,561**
	$	18,874	41,858	52,707	56,626	0	0	0	0	0	**54,205**
60-64		13	90	2,460	2,055	0	0	0	0	0	**4,618**
	$	37,375	42,721	54,290	56,450	0	0	0	0	0	**54,978**
65-69		16	31	765	567	0	0	0	0	0	**1,379**
	$	24,972	45,322	56,969	57,451	0	0	0	0	0	**56,534**
70-74		3	7	148	103	0	0	0	0	0	**261**
	$	34,416	51,181	47,191	53,858	0	0	0	0	0	**49,782**
75+		1	4	46	20	0	0	0	0	0	**71**
	$	8,317	20,846	37,633	38,545	0	0	0	0	0	**36,531**
Total		**109**	**1,199**	**22,320**	**13,854**	**0**	**0**	**0**	**0**	**0**	**37,482**
	$	**24,672**	**43,836**	**57,947**	**61,484**	**0**	**0**	**0**	**0**	**0**	**58,706**

Tier 1 Police and Fire Active Members

		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20		0	0	0	0	0	0	0	0	0	**0**
	$	0	0	0	0	0	0	0	0	0	**0**
20-24		0	0	0	0	0	0	0	0	0	**0**
	$	0	0	0	0	0	0	0	0	0	**0**
25-29		0	0	0	0	0	0	0	0	0	**0**
	$	0	0	0	0	0	0	0	0	0	**0**
30-34		0	0	0	0	0	0	0	0	0	**0**
	$	0	0	0	0	0	0	0	0	0	**0**
35-39		0	0	0	13	0	0	0	0	0	**13**
	$	0	0	0	98,241	0	0	0	0	0	**98,241**
40-44		0	0	5	274	131	0	0	0	0	**410**
	$	0	0	70,205	96,697	96,779	0	0	0	0	**96,400**
45-49		0	1	6	310	585	116	2	0	0	**1,020**
	$	0	22,385	63,302	93,007	99,803	98,087	103,142	0	0	**97,258**
50-54		0	0	5	137	431	353	39	0	0	**965**
	$	0	0	56,867	92,145	95,294	98,031	103,114	0	0	**95,965**
55-59		0	1	3	87	180	168	81	11	0	**531**
	$	0	55,868	98,901	81,698	89,650	94,009	105,164	91,448	0	**92,119**
60-64		0	0	0	41	78	63	28	11	1	**222**
	$	0	0	0	73,008	81,427	83,631	93,074	77,115	171,047	**82,157**
65-69		1	0	0	4	13	10	7	1	4	**40**
	$	30,870	0	0	70,060	92,368	71,776	104,316	99,619	114,890	**87,976**
70-74		0	0	0	1	4	1	1	0	0	**7**
	$	0	0	0	69,133	67,360	97,319	65,549	0	0	**71,635**
75+		0	0	0	1	0	0	0	1	0	**2**
	$	0	0	0	88,121	0	0	0	117,504	0	**102,813**
Total		**1**	**2**	**19**	**868**	**1,422**	**711**	**158**	**24**	**5**	**3,210**
	$	**30,870**	**39,126**	**69,046**	**91,897**	**95,706**	**95,444**	**102,202**	**86,305**	**126,122**	**94,701**

Tier 2 Police and Fire Active Members

		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20		0	0	0	0	0	0	0	0	0	**0**
	$	0	0	0	0	0	0	0	0	0	**0**
20-24		0	0	0	0	0	0	0	0	0	**0**
	$	0	0	0	0	0	0	0	0	0	**0**
25-29		1	0	0	0	0	0	0	0	0	**1**
	$	3,686	0	0	0	0	0	0	0	0	**3,686**
30-34		1	4	74	5	0	0	0	0	0	**84**
	$	7,655	76,700	89,253	74,210	0	0	0	0	0	**86,789**
35-39		0	26	661	176	0	0	0	0	0	**863**
	$	0	66,345	86,569	90,659	0	0	0	0	0	**86,794**
40-44		1	14	711	769	0	0	0	0	0	**1,495**
	$	44,770	63,971	85,661	89,487	0	0	0	0	0	**87,398**
45-49		1	7	445	575	0	0	0	0	0	**1,028**
	$	11,170	69,270	81,307	87,402	0	0	0	0	0	**84,566**
50-54		0	6	249	311	0	0	0	0	0	**566**
	$	0	68,490	78,966	80,805	0	0	0	0	0	**79,866**
55-59		0	1	169	189	0	0	0	0	0	**359**
	$	0	48,798	69,874	75,549	0	0	0	0	0	**72,803**
60-64		0	4	116	111	0	0	0	0	0	**231**
	$	0	40,224	66,754	72,793	0	0	0	0	0	**69,197**
65-69		0	1	31	30	0	0	0	0	0	**62**
	$	0	64,149	72,868	77,036	0	0	0	0	0	**74,744**
70-74		0	1	3	4	0	0	0	0	0	**8**
	$	0	61,932	117,701	77,594	0	0	0	0	0	**90,676**
75+		0	0	1	0	0	0	0	0	0	**1**
	$	0	0	20,657	0	0	0	0	0	0	**20,657**
Total		**4**	**64**	**2,460**	**2,170**	**0**	**0**	**0**	**0**	**0**	**4,698**
	$	**16,820**	**64,984**	**82,423**	**85,488**	**0**	**0**	**0**	**0**	**0**	**83,545**

All Tier 1/Tier 2 Active Members

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20	0	0	0	0	0	0	0	0	0	**0**
$	0	0	0	0	0	0	0	0	0	**0**
20-24	0	0	0	0	0	0	0	0	0	**0**
$	0	0	0	0	0	0	0	0	0	**0**
25-29	2	4	5	0	0	0	0	0	0	**11**
$	8,674	40,805	40,156	0	0	0	0	0	0	**34,668**
30-34	12	76	546	26	0	0	0	0	0	**660**
$	24,132	50,188	56,536	58,640	0	0	0	0	0	**55,299**
35-39	22	339	4,090	865	5	0	0	0	0	**5,321**
$	27,486	45,995	65,207	67,687	54,762	0	0	0	0	**64,221**
40-44	19	338	4,767	4,409	499	11	0	0	0	**10,043**
$	42,804	43,222	66,802	73,760	76,729	73,334	0	0	0	**69,518**
45-49	32	245	4,236	4,825	2,804	509	8	0	0	**12,659**
$	78,852	46,491	62,582	71,496	78,190	75,615	85,093	0	0	**69,705**
50-54	27	191	4,191	4,530	3,281	2,654	365	10	0	**15,249**
$	57,848	47,108	56,741	64,352	73,714	76,838	75,378	68,637	0	**66,487**
55-59	23	153	3,935	4,827	3,583	2,715	1,193	224	2	**16,655**
$	62,590	43,226	53,603	58,493	67,274	74,123	77,515	71,828	65,317	**63,183**
60-64	17	136	2,685	3,362	2,711	1,830	756	310	48	**11,855**
$	59,177	49,794	55,107	58,112	62,128	71,854	78,349	77,052	68,560	**62,205**
65-69	19	38	823	912	713	453	189	89	26	**3,262**
$	30,195	49,440	57,894	59,957	65,553	71,727	78,937	90,074	88,011	**64,143**
70-74	4	10	156	146	80	47	29	20	14	**506**
$	28,819	44,954	48,686	54,310	60,064	67,266	85,159	93,672	89,925	**58,612**
75+	1	4	51	31	20	9	7	2	8	**133**
$	8,317	20,846	37,848	39,513	54,991	55,378	95,424	61,296	79,555	**47,159**
Total	**178**	**1,534**	**25,485**	**23,933**	**13,696**	**8,228**	**2,547**	**655**	**98**	**76,354**
$	**50,297**	**45,870**	**60,238**	**65,321**	**70,223**	**74,394**	**77,722**	**77,366**	**77,604**	**65,588**

Age/Service and Prior Year Covered Payroll by Rate Pool

Tier 1/Tier 2 SLGRP Active Members

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20	0	0	0	0	0	0	0	0	0	**0**
$	0	0	0	0	0	0	0	0	0	**0**
20-24	0	0	0	0	0	0	0	0	0	**0**
$	0	0	0	0	0	0	0	0	0	**0**
25-29	1	2	2	0	0	0	0	0	0	**5**
$	3,686	33,944	45,585	0	0	0	0	0	0	**32,549**
30-34	3	42	307	26	0	0	0	0	0	**378**
$	24,194	55,294	60,207	58,640	0	0	0	0	0	**59,267**
35-39	10	146	1,773	549	3	0	0	0	0	**2,481**
$	22,522	50,448	67,221	68,646	48,893	0	0	0	0	**66,347**
40-44	5	130	2,308	2,255	347	8	0	0	0	**5,053**
$	33,392	48,466	70,437	76,496	77,755	71,452	0	0	0	**73,043**
45-49	8	116	2,126	2,634	1,452	358	1	0	0	**6,695**
$	38,171	53,953	68,951	74,938	81,328	78,008	85,684	0	0	**74,181**
50-54	9	106	2,024	2,423	1,741	1,283	237	10	0	**7,833**
$	32,531	53,745	67,012	72,891	79,240	79,941	77,614	68,637	0	**73,770**
55-59	7	79	1,907	2,356	1,812	1,501	620	160	1	**8,443**
$	26,138	50,117	63,565	70,104	77,002	80,264	79,996	75,244	102,111	**72,518**
60-64	8	80	1,455	1,770	1,382	1,116	488	180	34	**6,513**
$	39,398	52,228	64,240	67,868	72,536	80,504	84,379	79,987	73,330	**71,587**
65-69	8	25	480	534	424	293	131	64	12	**1,971**
$	28,031	50,107	67,628	68,679	76,571	79,080	87,753	105,465	90,573	**73,862**
70-74	2	7	103	92	59	32	25	17	11	**348**
$	16,524	58,842	59,140	60,761	67,528	80,304	93,751	100,223	99,487	**68,454**
75+	1	2	31	22	13	7	6	2	8	**92**
$	8,317	14,552	43,845	43,964	67,961	54,294	107,772	61,296	79,555	**54,707**
Total	**62**	**735**	**12,516**	**12,661**	**7,233**	**4,598**	**1,508**	**433**	**66**	**39,812**
$	**29,522**	**51,487**	**66,886**	**72,209**	**77,461**	**79,926**	**82,056**	**82,446**	**82,015**	**72,433**

Tier 1/Tier 2 School District Active Members

		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20		0	0	0	0	0	0	0	0	0	**0**
	$	0	0	0	0	0	0	0	0	0	**0**
20-24		0	0	0	0	0	0	0	0	0	**0**
	$	0	0	0	0	0	0	0	0	0	**0**
25-29		1	1	2	0	0	0	0	0	0	**4**
	$	13,661	39,458	23,003	0	0	0	0	0	0	**24,781**
30-34		6	28	174	0	0	0	0	0	0	**208**
	$	12,331	39,680	45,721	0	0	0	0	0	0	**43,945**
35-39		11	173	1,953	200	0	0	0	0	0	**2,337**
	$	22,909	39,959	60,632	55,840	0	0	0	0	0	**58,514**
40-44		10	183	2,038	1,736	80	0	0	0	0	**4,047**
	$	18,606	37,406	60,031	67,238	62,796	0	0	0	0	**62,052**
45-49		6	110	1,749	1,742	1,092	98	2	0	0	**4,799**
	$	19,014	31,734	52,631	63,076	70,958	61,616	64,173	0	0	**60,260**
50-54		7	67	1,874	1,758	1,265	1,147	102	0	0	**6,220**
	$	12,718	29,759	43,581	50,375	63,485	71,120	66,388	0	0	**54,818**
55-59		7	58	1,770	2,135	1,508	1,016	489	44	1	**7,028**
	$	13,123	27,077	41,342	43,544	53,690	63,405	72,751	58,159	28,523	**49,993**
60-64		3	42	1,057	1,331	1,143	578	217	108	13	**4,492**
	$	25,026	29,186	40,358	43,349	47,954	53,756	63,387	70,358	56,485	**46,667**
65-69		7	8	279	294	236	122	40	24	9	**1,019**
	$	13,824	23,469	39,077	40,772	44,138	50,866	52,511	48,570	78,580	**42,953**
70-74		1	3	47	44	16	14	4	2	3	**134**
	$	70,200	12,548	28,267	36,608	36,375	39,307	31,463	21,128	54,865	**33,673**
75+		0	2	16	7	4	2	1	0	0	**32**
	$	0	27,139	28,719	29,944	23,221	59,170	21,340	0	0	**29,874**
Total		**59**	**675**	**10,959**	**9,247**	**5,344**	**2,977**	**855**	**178**	**26**	**30,320**
	$	**18,012**	**34,769**	**50,279**	**53,077**	**57,950**	**63,815**	**68,395**	**63,852**	**62,871**	**54,007**

Tier 1/Tier 2 Independent Employers Active Members

		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20		0	0	0	0	0	0	0	0	0	**0**
	$	0	0	0	0	0	0	0	0	0	**0**
20-24		0	0	0	0	0	0	0	0	0	**0**
	$	0	0	0	0	0	0	0	0	0	**0**
25-29		0	1	1	0	0	0	0	0	0	**2**
	$	0	55,873	63,602	0	0	0	0	0	0	**59,737**
30-34		3	6	65	0	0	0	0	0	0	**74**
	$	47,670	63,483	68,148	0	0	0	0	0	0	**66,940**
35-39		1	20	364	116	2	0	0	0	0	**503**
	$	127,471	65,698	79,946	83,577	63,565	0	0	0	0	**80,246**
40-44		4	25	421	418	72	3	0	0	0	**943**
	$	115,062	58,536	79,652	86,087	87,265	78,354	0	0	0	**82,672**
45-49		18	19	361	449	260	53	5	0	0	**1,165**
	$	116,879	86,370	73,279	83,972	91,041	85,342	93,343	0	0	**82,886**
50-54		11	18	293	349	275	224	26	0	0	**1,196**
	$	107,280	72,600	69,961	75,474	85,780	88,340	90,277	0	0	**79,474**
55-59		9	16	258	336	263	198	84	20	0	**1,184**
	$	129,415	67,738	64,077	72,070	78,142	82,566	86,936	74,580	0	**74,907**
60-64		6	14	173	261	186	136	51	22	1	**850**
	$	102,625	97,706	68,418	67,242	71,896	77,784	84,310	85,898	63,375	**72,441**
65-69		4	5	64	84	53	38	18	1	5	**272**
	$	63,174	87,660	66,916	71,662	72,763	82,001	73,499	101,133	98,835	**73,103**
70-74		1	0	6	10	5	1	0	1	0	**24**
	$	12,030	0	29,185	72,850	47,800	41,476	0	127,385	0	**55,146**
75+		0	0	4	2	3	0	0	0	0	**9**
	$	0	0	27,892	24,049	41,148	0	0	0	0	**31,457**
Total		**57**	**124**	**2,010**	**2,025**	**1,119**	**653**	**184**	**44**	**6**	**6,222**
	$	**106,313**	**72,999**	**73,143**	**78,165**	**82,049**	**83,661**	**85,540**	**82,043**	**92,925**	**78,233**

OPSRP Active General Service Members

		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20		88	0	0	0	0	0	0	0	0	**88**
	$	11,438	0	0	0	0	0	0	0	0	**11,438**
20-24		1,709	42	0	0	0	0	0	0	0	**1,751**
	$	22,696	22,163	0	0	0	0	0	0	0	**22,684**
25-29		6,165	1,479	36	0	0	0	0	0	0	**7,680**
	$	34,515	38,158	35,546	0	0	0	0	0	0	**35,222**
30-34		6,784	6,307	809	0	0	0	0	0	0	**13,900**
	$	40,006	46,892	48,896	0	0	0	0	0	0	**43,648**
35-39		5,679	5,975	1,539	0	0	0	0	0	0	**13,193**
	$	42,124	49,807	54,121	0	0	0	0	0	0	**47,003**
40-44		4,833	5,204	1,337	0	0	0	0	0	0	**11,374**
	$	41,561	50,806	53,136	0	0	0	0	0	0	**47,151**
45-49		3,996	4,754	1,409	0	0	0	0	0	0	**10,159**
	$	39,966	46,512	48,375	0	0	0	0	0	0	**44,196**
50-54		3,279	4,118	1,520	0	0	0	0	0	0	**8,917**
	$	39,147	44,649	44,642	0	0	0	0	0	0	**42,625**
55-59		2,645	3,482	1,311	0	0	0	0	0	0	**7,438**
	$	39,558	44,639	44,019	0	0	0	0	0	0	**42,723**
60-64		1,692	2,481	897	0	0	0	0	0	0	**5,070**
	$	37,638	44,398	43,446	0	0	0	0	0	0	**41,974**
65-69		545	930	344	0	0	0	0	0	0	**1,819**
	$	32,351	43,011	43,894	0	0	0	0	0	0	**39,984**
70-74		150	177	63	0	0	0	0	0	0	**390**
	$	24,236	31,429	31,087	0	0	0	0	0	0	**28,608**
75+		31	72	30	0	0	0	0	0	0	**133**
	$	21,876	23,810	20,663	0	0	0	0	0	0	**22,650**
Total		**37,596**	**35,021**	**9,295**	**0**	**0**	**0**	**0**	**0**	**0**	**81,912**
	$	**38,366**	**46,628**	**47,934**	**0**	**0**	**0**	**0**	**0**	**0**	**42,984**

OPSRP Active Police and Fire Members

		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20		0	0	0	0	0	0	0	0	0	**0**
	$	0	0	0	0	0	0	0	0	0	**0**
20-24		142	0	0	0	0	0	0	0	0	**142**
	$	48,890	0	0	0	0	0	0	0	0	**48,890**
25-29		767	242	3	0	0	0	0	0	0	**1,012**
	$	56,966	67,459	85,836	0	0	0	0	0	0	**59,561**
30-34		668	995	128	0	0	0	0	0	0	**1,791**
	$	58,158	71,238	78,222	0	0	0	0	0	0	**66,858**
35-39		412	800	204	0	0	0	0	0	0	**1,416**
	$	57,387	71,938	74,921	0	0	0	0	0	0	**68,134**
40-44		240	476	147	0	0	0	0	0	0	**863**
	$	57,310	69,921	75,091	0	0	0	0	0	0	**67,294**
45-49		185	298	77	0	0	0	0	0	0	**560**
	$	55,838	64,655	74,713	0	0	0	0	0	0	**63,125**
50-54		100	188	66	0	0	0	0	0	0	**354**
	$	61,514	58,908	70,740	0	0	0	0	0	0	**61,850**
55-59		70	143	29	0	0	0	0	0	0	**242**
	$	62,391	61,258	64,170	0	0	0	0	0	0	**61,935**
60-64		37	99	24	0	0	0	0	0	0	**160**
	$	60,558	61,590	61,487	0	0	0	0	0	0	**61,336**
65-69		10	24	9	0	0	0	0	0	0	**43**
	$	63,684	58,157	49,509	0	0	0	0	0	0	**57,632**
70-74		2	5	1	0	0	0	0	0	0	**8**
	$	118,901	78,470	14,724	0	0	0	0	0	0	**80,610**
75+		0	2	0	0	0	0	0	0	0	**2**
	$	0	44,787	0	0	0	0	0	0	0	**44,787**
Total		**2,633**	**3,272**	**688**	**0**	**0**	**0**	**0**	**0**	**0**	**6,593**
	$	**57,291**	**68,801**	**73,853**	**0**	**0**	**0**	**0**	**0**	**0**	**64,731**

All OPSRP Active Members

		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20		88	0	0	0	0	0	0	0	0	**88**
	$	11,438	0	0	0	0	0	0	0	0	**11,438**
20-24		1,851	42	0	0	0	0	0	0	0	**1,893**
	$	24,706	22,163	0	0	0	0	0	0	0	**24,649**
25-29		6,932	1,721	39	0	0	0	0	0	0	**8,692**
	$	36,999	42,278	39,415	0	0	0	0	0	0	**38,055**
30-34		7,452	7,302	937	0	0	0	0	0	0	**15,691**
	$	41,633	50,209	52,903	0	0	0	0	0	0	**46,297**
35-39		6,091	6,775	1,743	0	0	0	0	0	0	**14,609**
	$	43,156	52,420	56,556	0	0	0	0	0	0	**49,051**
40-44		5,073	5,680	1,484	0	0	0	0	0	0	**12,237**
	$	42,306	52,407	55,311	0	0	0	0	0	0	**48,572**
45-49		4,181	5,052	1,486	0	0	0	0	0	0	**10,719**
	$	40,669	47,583	49,739	0	0	0	0	0	0	**45,185**
50-54		3,379	4,306	1,586	0	0	0	0	0	0	**9,271**
	$	39,809	45,272	45,728	0	0	0	0	0	0	**43,359**
55-59		2,715	3,625	1,340	0	0	0	0	0	0	**7,680**
	$	40,147	45,295	44,455	0	0	0	0	0	0	**43,328**
60-64		1,729	2,580	921	0	0	0	0	0	0	**5,230**
	$	38,129	45,058	43,916	0	0	0	0	0	0	**42,566**
65-69		555	954	353	0	0	0	0	0	0	**1,862**
	$	32,915	43,392	44,037	0	0	0	0	0	0	**40,392**
70-74		152	182	64	0	0	0	0	0	0	**398**
	$	25,482	32,722	30,831	0	0	0	0	0	0	**29,653**
75+		31	74	30	0	0	0	0	0	0	**135**
	$	21,876	24,377	20,663	0	0	0	0	0	0	**22,977**
Total		**40,229**	**38,293**	**9,983**	**0**	**0**	**0**	**0**	**0**	**0**	**88,505**
	$	**39,604**	**48,522**	**49,720**	**0**	**0**	**0**	**0**	**0**	**0**	**44,604**

Inactive Member Data Exhibits

For the following exhibits, inactive members are counted by lives, not by segments.

Total Tier 1/Tier 2

Inactive Members	Count	Average Deferred Monthly Benefit
<20	0	$ 0
20-24	0	0
25-29	20	155
30-34	332	468
35-39	1,877	868
40-44	3,347	1,237
45-49	4,170	1,463
50-54	5,481	1,541
55-59	6,831	1,480
60-64	5,648	1,546
65-69	2,906	1,312
70-74	1,007	989
75+	826	1,244
Total	**32,445**	**$ 1,392**

Retirees and Beneficiaries	Count	Average Monthly Benefit
<45	554	$ 1,171
45-49	342	1,757
50-54	1,247	2,589
55-59	6,683	2,998
60-64	22,246	2,888
65-69	32,519	2,698
70-74	24,844	2,523
75-79	16,789	2,249
80-84	11,483	1,909
85-89	7,788	1,521
90-94	4,186	1,118
95-99	1,127	845
100+	165	729
Total	**129,973**	**$ 2,435**

OPSRP

Inactive Members	Count	Average Deferred Monthly Benefit
<20	0	$ 0
20-24	14	99
25-29	356	209
30-34	1,654	312
35-39	1,714	364
40-44	1,300	394
45-49	1,234	363
50-54	1,208	347
55-59	949	340
60-64	708	343
65-69	428	208
70-74	325	92
75+	228	63
Total	**10,118**	**$ 326**

Retirees and Beneficiaries	Count	Average Monthly Benefit
<45	4	$ 1,396
45-49	4	1,279
50-54	5	184
55-59	129	251
60-64	368	327
65-69	764	424
70-74	227	387
75-79	27	420
80-84	4	305
85-89	0	0
90-94	0	0
95-99	0	0
100+	0	0
Total	**1,532**	**$ 384**

System-Wide Totals

Inactive Members	Count	Average Deferred Monthly Benefit
<20	0	$ 0
20-24	14	99
25-29	376	206
30-34	1,986	338
35-39	3,591	628
40-44	4,647	1,001
45-49	5,404	1,212
50-54	6,689	1,326
55-59	7,780	1,341
60-64	6,356	1,412
65-69	3,334	1,170
70-74	1,332	770
75+	1,054	989
Total	**42,563**	**$ 1,138**

Retirees and Beneficiaries	Count	Average Monthly Benefit
<45	558	$ 1,172
45-49	346	1,752
50-54	1,252	2,580
55-59	6,812	2,946
60-64	22,614	2,846
65-69	33,283	2,646
70-74	25,071	2,504
75-79	16,816	2,246
80-84	11,487	1,909
85-89	7,788	1,521
90-94	4,186	1,118
95-99	1,127	845
100+	165	729
Total	**131,505**	**$ 2,411**

Retiree Healthcare Member Data Exhibits

For the following exhibits, inactive members are counted by lives, not by pool or employer segments.

RHIA Members

	As of December 31, 2014	As of December 31, 2013
Dormant members		
Number	15,296	15,242
Average Age	53.7	53.0
Retired members under age 65 eligible for deferred RHIA benefits		
Number	27,708	29,533
Average Age	60.4	60.3
Retired members receiving RHIA benefits		
Number	46,322	45,428
Average Age	75.6	75.5

RHIPA Members

	As of December 31, 2014	As of December 31, 2013
Active Tier 1/Tier 2 employees of RHIPA employers		
Number	20,818	22,225
Average Age	52.8	52.3
Average Service	18.9	18.1
Retired members receiving RHIPA benefits		
Number	1,288	1,260
Average Age	61.5	61.3
Average Monthly Subsidy Amount	296	297

Actuarial Methods and Assumptions

Tier 1/Tier 2 (including Retiree Healthcare)

Actuarial Methods and Valuation Procedures

In September 2015 the Board adopted the following actuarial methods and valuation procedures for the December 31, 2014 and 2015 actuarial valuations of PERS Tier 1/Tier 2 benefits.

<table>
<tr><td>Actuarial cost method</td><td>Entry Age Normal. Under the Entry Age Normal (EAN) cost method, each active member’s entry age present value of projected benefits is allocated over the member’s service from the member’s date of entry until their assumed date of exit, taking into consideration expected future compensation increases. Thus, the total pension to which each member is expected to become entitled at retirement is broken down into units, each associated with a year of past or projected future credited service. Typically, when this method is introduced, there will be an initial liability for benefits credited for service prior to that date, and to the extent that the liability is not covered by assets of the plan, there is an unfunded accrued liability to be funded over a stipulated period in accordance with an amortization schedule.
A detailed description of the calculation follows:
An individual member’s entry age present value of projected benefits is the sum of the present value of the benefit described under the plan at each possible separation date, determined at the member’s entry age using the projected compensation and service at each separation date.
An individual member’s entry age present value of projected salaries is the sum of the present value of the projected compensation over the member’s working career associated with each possible future separation date, determined at the member’s entry age.
An individual member’s present value of projected benefits is the sum of the present value of the benefit described under the plan at each possible separation date, determined at the valuation date using the projected compensation and service at each separation date.
An individual member’s normal cost for a certain year is the member’s entry age present value of projected benefits divided by the member’s entry age present value of projected salaries and multiplied by the member’s projected compensation for the year following the valuation date.
An individual member’s actuarial accrued liability is the member’s present value of projected benefits less the sum of the present value of the member’s normal costs for each future year, determined at the valuation date using the projected compensation and service at each future year.
The plan’s normal cost is the sum of the individual member normal costs, and the plan’s actuarial accrued liability is the sum of the individual member accrued liabilities.</td></tr>
<tr><td>Tier 1/Tier 2 UAL amortization</td><td>The Tier 1/Tier 2 UAL amortization period was reset to 20 years as of December 31, 2013. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll (Tier 1/ Tier 2 plus OPSRP payroll) over a closed 20 year period from the valuation in which they are first recognized.</td></tr>
</table>

Retiree Healthcare UAL amortization	The UAL for Retiree Health Care as of December 31, 2007 is amortized as a level percentage of projected combined valuation payroll (Tier 1/ Tier 2 plus OPSRP payroll) over a closed 10 year period. Gains and losses between subsequent odd-year valuations are amortized as a level percentage of combined valuation payroll over a closed 10 year period from the valuation in which they are first recognized.
Asset valuation method	The actuarial value of assets equals the market value of assets, excluding the Contingency and Capital Preservation Reserves, and the Rate Guarantee Reserve when it is in positive surplus status. Market values are reported to Milliman by PERS. It is our understanding that select real estate and private equity investments are reported on a three-month lag basis. This valuation report does not attempt to quantify any effects of the reporting lag.
Contribution rate stabilization method	Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) are confined to a collared range based on the prior contribution rate (prior to application of side accounts, pre-SLGRP liabilities, and 6 percent Independent Employer minimum). The new contribution rate will generally not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the prior contribution rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funded 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.
Allocation of Liability for Service Segments	For active Tier 1/Tier 2 members who have worked for multiple PERS employers over their career, the calculated actuarial accrued liability is allocated among the employers based on a weighted average of the Money Match methodology, which uses account balance, and the Full Formula methodology, which uses service. The allocation is 25% (0% for police & fire) based on account balance with each employer and 75% (100% for police & fire) based on service with each employer. The entire normal cost is allocated to the current employer.
Allocation of Benefits-In-Force (BIF) Reserve	The BIF reserve is allocated to each rate pool in proportion to the retiree liability attributable to the rate pool.

Economic Assumptions

The Board adopted the following economic assumptions for the December 31, 2014 and 2015 actuarial valuations.

Investment return	7.50% compounded annually
Pre-2014 Interest crediting	8.00% compounded annually on members' regular account balances 8.25% compounded annually on members' variable account balances
Post-2013 Interest crediting	7.50% compounded annually on members' regular account balances 7.50% compounded annually on members' variable account balances
Inflation	2.50% compounded annually
Administrative expenses	$33.0 million per year is added to the normal cost.
Payroll growth	3.50% compounded annually. This assumption represents the sum of the inflation assumption and a real wage growth assumption of 100 basis points.
Healthcare cost trend	Health cost trend rates are used to predict increases in the RHIPA Maximum Subsidy. These rates include consideration of the excise tax that will be introduced in 2018 by the Patient Protection and Affordable Care Act.

Year[2]	Rate	Year	Rate
2015	7.0%	2041 – 2043	5.8%
2016	6.3	2044 – 2045	5.7
2017	6.0	2046 – 2049	5.6
2018	5.4	2050 – 2055	5.5
2019	5.3	2056 – 2061	5.4
2020 – 2024	5.4	2062	5.3
2025 – 2027	5.5	2063	5.2
2028	6.4	2064	5.1
2029	6.5	2065	5.0
2030 – 2034	6.4	2066	4.9
2035	6.3	2067	4.8
2036	6.2	2068 – 2069	4.7
2037	6.1	2070	4.6
2038	6.0	2071 – 2093	4.5
2039 – 2040	5.9	2094+	4.4

2 *For valuation purposes, the health cost trend rates are assumed to be applied at the beginning of the plan year.*

Demographic Assumptions

The Board adopted the following demographic assumptions for the December 31, 2014 and 2015 actuarial valuations.

Mortality

Healthy Retired Members

The following healthy retired mortality tables were first adopted in the December 31 valuation of the years shown. The projection scale was first adopted in the December 31, 2014 valuation.

Basic Table	RP 2000, Generational (Scale BB) Combined Active/Healthy Annuitant, Sex Distinct	Valuation Year Adopted
School District male	No collar, set back 24 months	2012
Other General Service male*	Blended 25% blue collar / 75% white collar, set back 12 months	2010
Police & Fire male	Blended 25% blue collar / 75% white collar, set back 12 months	2012
School District female	No collar, set back 24 months	2014
Other female**	Blended 25% blue collar / 75% white collar, no set back	2014

** including male beneficiaries of members of all classes*
*** including female beneficiaries of members of all classes*

Disabled Retired Members

The following disabled retiree mortality rates were first adopted for the December 31, 2014 actuarial valuation.

Basic Table	RP 2000, Generational (Scale BB), Combined Disabled, No Collar, Sex Distinct
Male	70% of Disabled table
Female	95% of Disabled table

Non-Annuitant Members

The following mortality rates were first adopted for non-annuitant members for the December 31, 2014 actuarial valuation.

Basic Table	Percent of Healthy Retired Mortality Tables
School District male	60%
Other General Service male	75%
Police & Fire male	75%
School District female	55%
Other female	60%

Retirement Assumptions

The retirement assumptions used in the actuarial valuation include the following:

- Retirement from active status/dormant status
- Probability a member will elect a lump sum option at retirement
- Percentage of members who elect to purchase credited service at retirement.

Rates of Retirement from Active Status

The following retirement rate assumptions were first adopted in the December 31, 2014 valuation.

	Police & Fire			General Service			School Districts			Judges
Age	< 13 yrs	13-24 yrs	25+ yrs	<15 yrs	15-29 yrs	30+ yrs	<15 yrs	15-29 yrs	30+ yrs	
Less than 50						15.00%			15.00%	
50	1.50%	2.00%	24.00%			15.00%			15.00%	
51	1.50%	2.00%	17.50%			15.00%			15.00%	
52	1.50%	2.00%	17.50%			15.00%			25.00%	
53	1.50%	2.00%	17.50%			17.50%			25.00%	
54	1.50%	2.00%	17.50%			17.50%			25.00%	
55	5.00%	8.00%	23.50%	1.50%	3.00%	17.50%	1.50%	4.50%	25.00%	
56	5.00%	8.00%	23.50%	1.50%	3.00%	17.50%	1.50%	4.50%	25.00%	
57	5.00%	8.00%	23.50%	1.50%	3.00%	20.00%	1.50%	4.50%	25.00%	
58	5.00%	8.00%	23.50%	1.50%	10.00%	20.00%	2.50%	14.50%	32.00%	
59	5.00%	8.00%	23.50%	3.50%	10.00%	20.00%	4.50%	14.50%	28.50%	
60	5.00%	11.00%	23.50%	6.00%	10.00%	20.00%	6.50%	14.50%	28.50%	10.00%
61	5.00%	14.00%	23.50%	6.00%	10.00%	24.00%	8.00%	14.50%	28.50%	10.00%
62	15.00%	25.00%	38.00%	12.50%	19.50%	31.00%	15.00%	25.00%	34.00%	10.00%
63	7.00%	17.00%	38.00%	12.50%	16.50%	22.00%	13.00%	22.00%	26.50%	10.00%
64	7.00%	17.00%	17.00%	12.50%	16.50%	26.00%	13.00%	19.50%	31.50%	10.00%
65	100.00%	100.00%	100.00%	19.50%	28.00%	32.00%	25.50%	33.50%	38.00%	10.00%

	Police & Fire			General Service			School Districts			Judges
66				25.50%	35.00%	38.00%	21.50%	36.50%	38.00%	10.00%
67				22.50%	25.00%	26.00%	19.50%	34.50%	38.00%	10.00%
68				19.50%	25.00%	26.00%	19.50%	28.00%	28.50%	10.00%
69				19.50%	25.00%	26.00%	19.50%	28.00%	28.50%	30.00%
70				100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Retirement from Dormant Status

Dormant members are assumed to retire at Normal Retirement Age (age 58 for Tier 1, age 60 for Tier 2, age 60 for Judges, and age 55 for Police & Fire) or at the first unreduced retirement age (30 years of service, or age 50 with 25 years of service for Police & Fire).

Lump Sum Option at Retirement

Members retiring may elect to receive a full or partial lump sum at retirement. The probability that a retiring member will elect a lump sum at retirement is summarized in the table below. These rates were first adopted effective December 31, 2014.

Lump Sum Option at Retirement	
Partial Lump Sum:	4.5% for all years
Total Lump Sum:	3.0% for 2015, declining by 0.5% per year until reaching 0.0%
No Lump Sum:	92.5% in 2014, increasing by 0.5% per year until reaching 95.5%

Purchase of Credited Service at Retirement

The following percentages of members are assumed to purchase credit for the six-month waiting period at retirement. These rates were first adopted effective December 31, 2010.

Purchase of Credited Service at Retirement	
Money Match Retirements:	0%
Non-Money Match Retirements:	60%

Judge Member Plan Election

All judge members are assumed to elect to retire under the provisions of Plan B.

Disability Assumptions

There are two disability assumptions used in the valuation - duty disability and ordinary disability. Duty Disability rates are separated between Police & Fire and General Service, while ordinary disability is the same for all members. The rates for duty disability for General Service were first adopted effective December 31, 2014. The rates for duty disability for Police & Fire were first adopted effective December 31, 2012. The rates for ordinary disability were first adopted effective December 31, 2010.

	Percentage of the 1985 Disability Class 1 Rates
Duty Disability Police & Fire	20%
Duty Disability General Service	0.9%
Ordinary Disability	50% with 0.18% cap

Termination Assumptions

The termination assumptions were first adopted effective December 31, 2012, except for the Police & Fire and General Service females which were adopted effective December 31, 2014.

Termination Rates

Sample termination rates are shown for each group below:

Duration from Hire Date	School District Male	School District Female	General Service Male	General Service Female	Police & Fire
0	20.00%	15.50%	19.00%	18.50%	10.00%
1	16.00%	14.05%	17.16%	17.00%	5.97%
5	8.24%	8.35%	8.36%	9.29%	3.31%
10	4.23%	4.36%	3.96%	5.24%	2.23%
15	2.78%	2.98%	2.86%	3.66%	1.50%
20	1.82%	2.23%	2.07%	2.63%	1.01%
25	1.20%	1.67%	1.49%	1.89%	0.80%
30+	1.20%	1.50%	1.40%	1.50%	0.80%

For a complete table of rates, please refer to the 2014 Experience Study report for the System, published in September 2015.

Oregon Residency Post-Retirement

For purposes of determining eligibility for SB 656/HB 3349 benefit adjustments, 85% of retirees are assumed to remain Oregon residents after retirement.

Salary Increase Assumptions

The salary increase assumptions reflected in the actuarial valuation include:

- Merit scale increases in addition to the payroll growth increase
- Unused Sick Leave adjustments
- Vacation Pay adjustments

Merit Increases

Merit increases are based on duration of service for the following groups with sample rates shown in the following table. These rates were first adopted effective December 31, 2014.

Duration	School District	Other General Service	Police & Fire
0	3.53%	3.95%	5.17%
1	3.20%	3.55%	4.57%
5	2.01%	2.24%	2.71%
10	0.82%	1.22%	1.41%
15	-0.07%	0.71%	0.90%
20	-0.67%	0.52%	0.81%
25	-0.91%	0.45%	0.76%
30	-0.94%	0.29%	0.39%
31+	-0.94%	0.00%	0.00%

The assumed merit increase for active judge members is 0.0%.

For a complete table of rates, please refer to the 2014 Experience Study for the System, published in September 2015.

Unused Sick Leave

Members covered by the provision allowing unused sick leave to be used to increase final average salary are assumed to receive increases in their final average salary in accordance with the table below. This adjustment is not applied to disability benefits. Local general service females, school district males, and dormant members were adopted effective December 31, 2014. The state general service male, state general service female and local police and fire rates were adopted effective December 31, 2010. All other rates were adopted effective December 31, 2012.

Unused Sick Leave	
Actives	
• State General Service Male	6.25%
• State General Service Female	3.75%
• School District Male	7.25%
• School District Female	5.75%
• Local General Service Male	4.75%
• Local General Service Female	3.25%
• State Police & Fire	4.75%
• Local Police & Fire	7.50%
Dormant Members	3.00%

Vacation Pay

Members eligible to receive a lump sum payment of unused vacation pay are assumed to receive increases in their final average salary in accordance with the table below. This adjustment is not applied to disability benefits. These rates were adopted December 31, 2014, except the school district rates which were adopted effective December 31, 2012.

Vacation Pay	
Tier 1	
• State General Service	1.60%
• School District	0.25%
• Local General Service	2.20%
• State Police & Fire	1.80%
• Local Police & Fire	2.90%
Tier 2	0.00%

Retiree Healthcare Participation

The following percentages of eligible retiring members are assumed to elect RHIPA and RHIA coverage:

Retiree Healthcare Participation	
RHIPA	
• 8 – 9 years of service	10.0%
• 10 – 14 years of service	10.0%
• 15 – 19 years of service	18.0%
• 20 – 24 years of service	26.0%
• 25 – 29 years of service	29.0%
• 30+ years of service	38.0%
RHIA	
• Healthy Retired	38.0%
• Disabled Retired	20.0%

The RHIA disabled retired rate was first adopted December 31, 2008. The RHIPA rates up through 14 years of service were first adopted effective December 31, 2012. All other rates were first adopted effective December 31, 2014.

OPSRP

Most of the methods and assumptions adopted for the OPSRP valuation are the same as those used for Tier 1/ Tier 2. The methods and assumptions that differ for OPSRP are summarized below. The Board adopted the following methods, procedures and assumptions for the December 31, 2014 and December 31, 2015 actuarial valuations.

Actuarial Methods and Valuation Procedures

OPSRP UAL amortization	The UAL as of December 31, 2007 is amortized as a level percentage of projected combined valuation payroll (Tier 1/ Tier 2 plus OPSRP payroll) over a closed period 16 year period. Gains and losses between subsequent odd-year valuations are amortized as a level percentage of combined valuation payroll over 16 years from the valuation in which they are first recognized.

Economic Assumptions

Administrative expenses	$5.5 million per year is added to the normal cost.

Demographic Assumptions

Retirement Assumptions

Rates of Retirement from Active Status

	Police & Fire			General Service			School Districts		
Age	< 13 yrs	13-24 yrs	25+ yrs	<15 yrs	15-29 yrs	30+ yrs	<15 yrs	15-29 yrs	30+ yrs
50	1.00%	1.50%	5.50%						
51	1.00%	1.50%	5.50%						
52	1.00%	1.50%	5.50%						
53	1.00%	1.50%	25.00%						
54	1.00%	1.50%	17.50%						
55	4.00%	5.00%	23.50%	1.00%	2.50%	5.00%	1.00%	2.50%	5.00%
56	4.00%	5.00%	23.50%	1.00%	2.50%	5.00%	1.00%	2.50%	5.00%
57	4.00%	5.00%	23.50%	1.00%	2.50%	7.50%	1.00%	2.50%	7.50%
58	4.00%	5.00%	23.50%	1.00%	3.00%	30.00%	1.00%	3.00%	30.00%
59	4.00%	5.00%	23.50%	1.50%	3.00%	25.00%	1.50%	3.00%	25.00%
60	4.00%	15.00%	23.50%	3.00%	3.75%	20.00%	3.00%	3.75%	20.00%
61	4.00%	8.50%	23.50%	3.00%	5.00%	20.00%	3.00%	5.00%	20.00%
62	12.00%	25.00%	38.00%	8.00%	12.00%	30.00%	6.00%	12.00%	30.00%
63	7.00%	17.00%	38.00%	7.00%	10.00%	20.00%	6.00%	10.00%	20.00%
64	7.00%	17.00%	17.00%	6.00%	10.00%	20.00%	6.00%	10.00%	20.00%
65	100.00%	100.00%	100.00%	13.00%	35.00%	20.00%	12.00%	35.00%	20.00%
66				15.50%	33.00%	20.00%	14.00%	33.00%	20.00%

	Police & Fire			General Service			School Districts		
Age	< 13 yrs	13-24 yrs	25+ yrs	<15 yrs	15-29 yrs	30+ yrs	<15 yrs	15-29 yrs	30+ yrs
67				15.50%	22.00%	30.00%	11.00%	22.00%	30.00%
68				13.00%	17.00%	20.00%	9.00%	17.00%	20.00%
69				13.00%	17.00%	20.00%	9.00%	17.00%	20.00%
70				100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Rates of Retirement from Dormant Status

Dormant members are assumed to retire at their Normal Retirement Age.

Changes in Actuarial Methods and Assumptions — Tier 1/ Tier 2 and OPSRP

A summary of key changes implemented since the December 31, 2013 valuation are described briefly below. Additional detail and a comprehensive list of changes in methods and assumptions can be found in the 2014 Experience Study for the System, published in September 2015.

Changes in Actuarial Methods and Allocation Procedures

Allocation of Liability for Service Segments

For purposes of allocating Tier 1/Tier 2 members' actuarial accrued liability among multiple employers, the valuation uses a weighted average of the Money Match methodology and the Full Formula methodology used by PERS when the member retires. The weights are determined based on the prevalence of each formula among the current Tier 1/Tier 2 population. For the December 31, 2012 and December 31, 2013 valuations, the Money Match was weighted 30 percent for General Service members and 5 percent for Police & Fire members. For the December 31, 2014 and December 31, 2015 valuations, this weighting has been adjusted to 25 percent for General Service members and 0 percent for Police & Fire members, based on a projection of the proportion of liability attributable to Money Match benefits at those valuation dates.

Changes in Economic Assumptions

Investment Return and Interest Crediting

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

Inflation

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

Payroll Growth

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

Tier 1/Tier 2 Administrative Expenses

An explicit assumption for administrative expenses of $33.0 million per year was added for Tier 1/Tier 2.

Healthcare Cost Inflation

The healthcare cost inflation for the maximum RHIPA subsidy was updated based on analysis performed by Milliman's healthcare actuaries. This analysis includes the consideration of the excise tax that will be introduced in 2018 by the Patient Protection and Affordable Care Act

Changes in Demographic Assumptions

Healthy Mortality

The healthy mortality assumption is based on the RP2000 generational mortality tables with group-specific class and setback adjustments. The projection scale used to project improvements in life expectancy was updated from Scale AA to Scale BB to more closely align with recently released standard tables.

Disabled Mortality

The disabled mortality was changed from the static RP2000 disabled tables to include a generational mortality projection using Scale BB.

Disability, Retirement from Active Status, and Termination

Rates for disability, retirement from active status, and termination were adjusted.

Retiree Healthcare Participation

The RHIA participation rate for healthy retirees was reduced from 45% to 38%. The RHIPA participation rates were updated for members with more than 14 years of service.

Changes in Salary Increase Assumptions

Merit Increases, Unused Sick Leave, and Vacation Pay

Assumed merit increases were increased slightly for all members. Unused Sick Leave and Vacation Pay rates were adjusted.

Summary of Plan Provisions

Summary of Plan Provisions

The following section summarizes the plan provisions considered in the actuarial valuation. A more detailed description of plan provisions is available from PERS.

Membership	All employees of public employers participating in this System who are in qualifying positions become members of the System after completing six months of service except those who are eligible for and have elected to participate in an optional retirement plan. Different benefit provisions of the plan apply based on date of hire.	
	Tier 1	Hired prior to 1996
	Tier 2	Hired after 1995 and before August 29, 2003
	OPSRP	Hired after August 28, 2003, and neither a judge nor a former Tier 1/Tier 2 member eligible to reestablish Tier 1/Tier 2 membership
	Judges	Members of the State Judiciary
Member Contributions	**Judges**	7% of salary
	All others	None
Employer Contributions	Set by the PERS Board based on actuarial calculations that follow Board rate-setting policies for employers.	

Summary of Chapter 238 Provisions — Tier 1/Tier 2 and Judges

Normal Retirement Date	**Police and Fire**	Age 55
	Judges	Age 65
	Tier 1 General Service	Age 58
	Tier 2 General Service	Age 60

Normal Retirement Allowance

For Members who are not Judges, the greatest of the Full Formula benefit, the Money Match benefit, or the Formula Plus Annuity benefit (only available to Members who made contributions before August 21, 1981). For Members with 15 or more years of creditable service, the benefit will not be less than the minimum service retirement allowance of $100 per month, as described in ORS 238.310.

Full Formula The percentage multiplier from the table below multiplied by final average salary and years of creditable service plus a prior service pension, if applicable.

Percentage Multiplier	Membership Classification
2.00%	Fire, Police and Legislators
1.67%	All other members

Money Match The Member's account balance and a matching employer amount converted to an actuarially equivalent annuity.

Formula Plus Annuity The Member's account balance converted to an actuarially equivalent cash refund annuity plus the percentage multiplier from the table below multiplied by final average salary and years of creditable service, plus a prior service pension, if applicable.

Percentage Multiplier	Membership Classification
1.35%	Fire, Police and Legislators
1.00%	All other members

Normal Retirement Allowance (continued)

Judges

Final average salary multiplied by the first percentage multiplier from the table below for up to 16 years of service plus the second percentage multiplier for any service in excess of 16 years, but not to exceed the maximum percentage of final average salary also shown below. Judges must elect Plan A or Plan B no later than age 60. A "Plan B" judge must serve as a pro tem judge for a total of 175 days postretirement.

Plan	Percentage Factor (up to 16 years)	Percentage Factor (after 16 years)	Maximum Percentage of Final Average Salary
A	2.8125%	1.67%	65%
B	3.75%	2.00%	75%

Final Average Salary

The greater of:

- Average salary earned during the three calendar years in which the member was paid the highest salary, even if one of those years is less than a full calendar year.
- Total salary earned over the last 36 months of employment divided by the actual months of service during that 36 month period.

Covered salary for this purpose includes the value of member contributions assumed and paid by employers, any payment due to an employer's participation in the Unused Sick Leave program, and, for Tier 1 members, lump sum payment of unused vacation time.

Creditable Service

The number of years and months an active Member is paid a salary by a participating PERS employer and PERS benefits are being funded.

Prior Service Pension

Benefits payable on account of Prior Service Credit for a member's service with a participating employer prior to the employer's participation in PERS, as described in ORS 238.442.

SB 656/HB 3349 Adjustment

All members receive an increase to their monthly retirement benefit equal to the greater of the increase under Senate Bill 656 (SB 656) or House Bill 3349 (HB 3349). The adjustment for SB 656 only applies to members who established membership prior to July 14, 1995. Senate Bill 822, enacted in 2013, limits eligibility for these adjustments to only PERS beneficiaries who pay Oregon state income tax.

SB 656 Increase

Years of Service	General Service	Police & Fire
0-9	0.0%	0.0%
10-14	1.0	1.0
15-19	1.0	1.0
20-24	2.0	2.5
25-29	3.0	4.0
30 & Over	4.0	4.0

HB 3349 Increase

$$\left(\frac{1}{1 - \text{maximum Oregon personal income tax rate (limited to 9\%)}} - 1\right) \times \frac{\text{Service prior to October 1, 1991}}{\text{All Service}}$$

Early Retirement Eligibility	**Police and Fire**	Age 50 or 30 years of service
	Judges	Age 60
	General Service	Age 55 or 30 years of service
Early Retirement Allowance	Normal retirement allowance, actuarially reduced to early retirement age. However, there is no reduction applied if a member has completed 30 years of service (25 years for police & fire members) or for judges in Plan B.	
Vesting	Contributions made in any part of five calendar years or attainment of age 50 (45 for police & fire) while working in a qualifying position.	
Termination Benefits	**Non-Vested**	Payment of member's account balance.
	Vested	Same as normal (or early) retirement allowance, but commencement is deferred to normal (or early) retirement date.
Optional Forms of Retirement Allowance	The normal form of benefit is a cash refund annuity (joint and two-thirds survivor contingent annuity for a married judge). All optional amounts are adjusted to be actuarially equivalent. **Options Available** • Life annuity • Cash refund annuity • Life annuity guaranteed 15 years • Joint and 50% or 100% survivor contingent annuity, with or without pop-up feature • Partial Lump Sum: Refund of member contribution account balance plus a pension (under any optional form) of employer-paid portion of the Full Formula or Money Match annuity. • Total Lump Sum: Refund of member contribution account plus a matching employer amount.	
Preretirement Death Benefit Eligibility	**Judges**	Six or more years of service.
	All others	Death occurring while the member is an employee of a participating employer or within 120 days of termination provided the employee does not withdraw the account balance or retire, or a result of injuries received while in the service of a participating employer.
Preretirement Death Benefit	**Judges**	The spouse shall receive a life pension equal to two-thirds of the service retirement allowance. The beneficiary of an unmarried judge shall receive the member's accumulated contributions with interest.
	All others	The member's account balance plus a matching employer amount.
Additional Police & Fire Death Benefits	Upon the death of a retired police officer or firefighter, the surviving spouse or dependent children under age 18 will receive a monthly benefit based on 25% of the cash refund retirement allowance due to police and fire service.	
Disability Benefit Eligibility	**Duty**	Disablement occurring as a direct result of a job-related injury or illness, regardless of length of service.
	Non-Duty	Disablement occurring after ten years of service (six years, if a judge), but prior to normal retirement eligibility.

Disability Benefits	The normal retirement allowance calculated based on the service credit that would have been earned if the member had continued working to age 58 (age 55 for police and fire, age 65 for judge members) payable commencing immediately. **Fire and Police Members' Alternative** In lieu of the above, firefighters and police officers who qualify for duty disability may elect to receive a benefit of 50% of final average monthly salary at the time of disablement. **Minimum Monthly Retirement Allowance** Judges .... 45% of final average monthly salary. All others .... $100 for a member with at least 15 years of creditable service, actuarially reduced if an optional form of benefit is chosen. **Reduction of Benefits** Whenever a disabled employee's disability benefit and earned income for any month exceed the monthly salary received at the time of disablement or $400, if greater, the disability benefit will be reduced by the excess. For Tier Two members, the disability benefit may not exceed the member's salary at the time of disablement.
Waiting Time Service Purchases	Members with at least 10 years of combined credited and/or prior service under PERS may elect to purchase service credit for the six-month "waiting time" period worked prior to establishing membership in the system. The waiting time purchase is interest-free and must be purchased in one payment prior to retirement.
Police & Fire Unit Purchases	Police & fire members may purchase 60-month annuity benefits (up to $80 per month) that must be paid out by age 65 and cannot commence prior to the earliest retirement age. The amount purchased by the member is matched by the employer. In certain situations, such as termination of employment prior to retiring, or working beyond age 65, the employer's matching purchase is forfeited.
Automatic Postretirement Cost of Living Adjustments (COLAs)	All monthly pension and annuity benefits except unit purchases are eligible for postretirement adjustments. As a result of the Senate Bills 822 and 861 and the Oregon Supreme Court decision in *Moro v. State of Oregon*, automatic postretirement adjustments are based on a blended COLA as described below. **Automatic COLA prior to SB 822 and SB 861**: Benefits were adjusted annually to reflect the increase or decrease in the Consumer Price Index (Portland area - all items) as published by the Bureau of Labor Statistics. The maximum adjustment to be made for any year was 2% of the previous year's benefit. Any CPI change in excess of the limit was accumulated for future benefit adjustments which would otherwise be less than the limit. No benefit was decreased below its original amount. **Automatic Adjustments Provided by Senate Bills 822 and 861**: This legislation, passed in 2013, provided for that benefits would be increased annually based on a marginal rate schedule. The increase is calculated as 1.25% on the first $60,000 of annual benefit and 0.15% on amounts above $60,000 of annual benefit.

	Blended COLA after *Moro* decision	The Supreme Court decision in *Moro* requires that members "will be entitled to receive during retirement a blended COLA rate that reflects the different COLA provisions applicable to benefits earned at different times." The Supreme Court did not articulate a specific methodology for determining the blended COLA. For purposes of this valuation, we have determined the blend based on creditable service earned before and after October 2013. This approach is consistent with OAR 459-005-0510 adopted by the PERS Board in September 2015.
Ad Hoc Adjustments	From time to time, as granted by the Legislature, retired members and beneficiaries have received increases in their monthly benefits.	
Variable Annuity Program	**Contributions**	Prior to January 1, 2004, a member could elect to have 25, 50 or 75 percent of his or her contributions invested in the variable account.
	Benefit	At retirement, a member may elect to receive a variable annuity with the funds accumulated in his or her variable account. Alternatively, a member may elect to have all or a portion of the funds in his or her variable account transferred back to the regular account and receive an annuity from the System as though no variable annuity program existed. The employer-provided benefit, however, is based on the earnings the member would have received in the regular account.
Interest Credit on Member Accounts	**Tier 1 Regular**	Actuarially assumed rate of return until the rate guarantee reserve has been fully funded for three consecutive years and the Board elects to credit additional interest.
	Tier 2 Regular	Amount determined by the Board based on actual investment earnings of the regular account.
	Variable	Actual earnings in variable account.
Retiree Healthcare – Medicare Supplement (RHIA)	**Retiree Eligibility**	All of the following must be met: (a) Currently receiving a retirement allowance from the System, (b) Covered for eight years before retirement, (c) Enrolled in a PERS-sponsored health plan, and (d) Enrolled in both Medicare Part A and Part B.
	Surviving Spouse or Dependent Eligibility	A surviving spouse or dependent of a deceased RHIA-eligible retiree is eligible for RHIA benefits if they are enrolled in both Medicare Part A and Part B, and *either* of the following criteria are met: (a) Currently receiving a retirement allowance from the System, or (b) The surviving spouse or dependent was covered under the eligible retiree's PERS-sponsored health insurance at the time of the retiree's death and the deceased retiree retired before May 1, 1991.

	Benefit Amount	A monthly contribution of up to $60 per retiree is applied to PERS-sponsored Medicare supplemental insurance costs.
Retiree Healthcare – Under Age 65 (RHIPA)	**Retiree Eligibility**	Retired PERS members who were state employees at the time of retirement, are enrolled in a PERS-sponsored health plan, and are not eligible for Medicare.
	Surviving Spouse or Dependent Eligibility	A surviving spouse or dependent of a deceased RHIPA-eligible retiree is eligible for RHIPA benefits if they are not yet eligible for Medicare, and *either* of the following criteria are met: (a) Currently receiving a retirement allowance from the System, or (b) The surviving spouse or dependent was covered under the eligible retiree's PERS-sponsored health plan at the time of the retiree's death and the deceased retiree retired on or after September 29, 1991.
	Benefit	A percentage (as shown in the table below) of the maximum monthly subsidy based on years of service. The maximum monthly subsidy is calculated annually as the average difference between the health insurance premiums paid by active state employees and the premium retirees would pay if they were rated separately from active state employees. The maximum monthly subsidy for 2015 is $323.40 per month.

Years of Service with State Employer	Subsidized Amount
Under 8	0%
8-9	50%
10-14	60%
15-19	70%
20-24	80%
25-29	90%
30 & Over	100%

Changes in Plan Provisions	The Oregon Supreme Court decision in *Moro v. State of Oregon*, issued on April 30, 2015, reversed a significant portion of the reductions the 2013 Oregon Legislature made to future system Cost of Living Adjustments (COLA) through Senate Bills 822 and 861. This reversal increased the benefits projected to be paid and consequently increased plan liabilities.

Summary of Chapter 238A Provisions — OPSRP

Normal Retirement Date	**Police & Fire**	Age 60 or age 53 with 25 years of retirement credit
	General Service	Age 65 or age 58 with 30 years of retirement credit
	School Districts	Age 65 or age 58 with 30 calendar years of active membership
Normal Retirement Allowance	A single life annuity equal to final average salary times years of retirement credit attributable to service as fire and police times 1.8% plus final average salary times all other years of retirement credit times 1.5%	
Final Average Salary	The greater of: • Average salary earned during the three calendar years in which the member was paid the highest salary, even if one of those years is less than a full calendar year. • Total salary earned over the last 36 months of employment divided by the actual months of service during that 36 month period. Covered salary for this purpose includes base pay, plus overtime up to an average amount, plus bonuses, plus member contributions paid by the employer on a salary reduction basis. Excludes payments of unused vacation or accumulated sick leave at retirement, and member contributions “assumed and paid” by the employer.	
Early Retirement Eligibility	**Police & Fire**	Age 50 and 5 years of vesting service
	General Service	Age 55 and 5 years of vesting service
Early Retirement Allowance	Normal retirement allowance, actuarially reduced to early retirement age.	
Vesting	Five years or attainment of normal retirement age.	
Vested Termination Benefit	Same as normal (or early) retirement allowance, but commencement is deferred to normal (or early) retirement date.	
Optional Forms of Retirement Benefit	The normal form of benefit is a life annuity. All optional amounts are adjusted to be actuarially equivalent. **Options Available** • Life annuity • Joint and 50% or 100% survivor contingent benefit, with or without pop-up feature • Lump sum if monthly normal retirement benefit is less than $200 or if lump sum value is less than $5,000.	
Preretirement Death Benefit Eligibility	Death of a vested member before retirement benefits begin.	
Preretirement Death Benefit	If member was eligible for early retirement, the actuarial equivalent of 50% of the early retirement benefit the participant was eligible to receive at date of death. If member was not eligible for early retirement, the actuarial equivalent of 50% of the early retirement benefit the participant would have been eligible to receive if he terminated employment on his date of death and retired at the earliest possible date.	

Disability Benefit Eligibility	**Duty**	Disablement occurring as a direct result of a job-related injury or illness, regardless of length of service.
	Non-Duty	Disablement occurring after ten years of service, but prior to normal retirement eligibility.
Disability Benefit Amounts	**Preretirement Benefit**	45% of salary during last full month of employment before disability, reduced if the total benefit exceeds 75% of salary. Benefit is payable monthly until normal retirement age.
	Retirement Benefit	Same formula as Normal Retirement Benefit, except: Final average salary is adjusted to reflect cost-of-living increases from date of disability to normal retirement age, and Retirement credits continue to accrue from date of disability to normal retirement age.
Postretirement Adjustments	All monthly pension and annuity benefits except unit purchases are eligible for postretirement adjustments. As a result of the Senate Bills 822 and 861 and the Oregon Supreme Court decision in *Moro v. State of Oregon*, automatic postretirement adjustments are based on a blended COLA as described below.	
	Automatic COLA prior to SB 822 and SB 861	Benefits were adjusted annually to reflect the increase or decrease in the Consumer Price Index (Portland area - all items) as published by the Bureau of Labor Statistics. The maximum adjustment to be made for any year was 2% of the previous year's benefit. Any CPI change in excess of the limit was accumulated for future benefit adjustments which would otherwise be less than the limit. No benefit was decreased below its original amount.
	Automatic Adjustments Provided by Senate Bills 822 and 861	This legislation, passed in 2013, provided for that benefits would be increased annually based on a marginal rate schedule. The increase is calculated as 1.25% on the first $60,000 of annual benefit and 0.15% on amounts above $60,000 of annual benefit.
Changes in Plan Provisions	The Oregon Supreme Court decision in *Moro v. State of Oregon*, issued on April 30, 2015, reversed a significant portion of the reductions the 2013 Oregon Legislature made to future system Cost of Living Adjustments (COLA) through Senate Bills 822 and 861. This reversal increased the benefits projected to be paid and consequently increased plan liabilities.	

Glossary

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 accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded 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 Tier 1, Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

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

Fundamental Cost Equation. An expression of the long-term cost of a pension plan, which states that:

Benefits + Expenses = Contributions + Investment Earnings

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.

Pre-SLGRP Liability/(Surplus). The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability/(Surplus). 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. 25 of the Governmental Accounting Standards Board (GASB 25). The accounting standard establishing financial reporting standards for defined benefit pension plans. The standard has been replaced by GASB Statement 67 for plan fiscal years beginning after June 15, 2013.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27). The accounting standard governing a governmental employer's accounting for pensions. The standard has been replaced by GASB Statement 68 for employer fiscal years beginning after June 15, 2014.

Statement No. 43 of the Governmental Accounting Standards Board (GASB 43). The accounting standard establishing financial reporting standards for post-employment benefits other than pensions.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). The accounting standard governing a governmental employer's accounting for post-employment benefits other than pensions.

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 Tier 1/Tier 2 normal cost rates.

Transition Liability/(Surplus). 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.