Milliman
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December 2013

State Judiciary/2099
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System ("PERS" or "the System") as of December 31, 2012. Information is also provided to assist you in preparing your required financial reporting disclosures under Statements 27 and 45 of the Governmental Accounting Standards Board.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2015 through June 30, 2017 will be calculated in the December 31, 2013 actuarial valuation.

This report reflects the changes made to the System's benefit provisions during 2013, as summarized later in the report. The full development of the valuation results for the Retiree Health Insurance Account (RHIA) and Reitre Health Insurance Premium Account (RHIPA) programs can be found in the separate system-wide actuarial valuation report. The State Judiciary does not participate in the OPSRP or IAP Plans.

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

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates,
- Information to assist you in completing GASB 27 and GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

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

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

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

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

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

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

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2013.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2015 to June 2017 for System employers. Other actuarial computations presented in this report under GASB Statements No. 27 and 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statements No. 27 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.

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December 2013
State Judiciary/2099

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

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

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

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

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

Sincerely,

Matthew R. Larrabee, FSA, EA
Principal and Consulting Actuary

Scott D. Preppernau, FSA, EA
Consulting Actuary

The information contained in this document (including any attachments) is not intended by Milliman to be used, and it cannot be used, for the purpose of avoiding penalties under the Internal Revenue Code that may be imposed on the taxpayer.

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2012

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

State Judiciary -- #2099

December 2013

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Executive Summary

Milliman has prepared this report for State Judiciary to:

- Provide summary December 31, 2012, valuation results for the Retiree Health Insurance Account (RHIA) and the Retiree Health Insurance Premium Account (RHIPA),
- Provide advisory information calculated as of December 31, 2012, on estimated employer-specific contribution rates effective July 1, 2015 through June 30, 2017,
- Provide employer-specific valuation results on assets and liabilities as of December 31, 2012, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statements Number 27 and 45.

This report summarizes the valuation results for the RHIA and RHIPA. The full development of these results can be found in the December 31, 2012, system-wide valuation report. This report develops advisory employer-specific pension rates and applies the results from the system-wide valuation to State Judiciary. In the system-wide report, pension valuation results for the State Judiciary are included in the Tier 1/Tier 2 valuation results for Independent Employers.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2012.

Advisory Employer Rates Calculated as of December 31, 2012, for State Judiciary

Pension	
Normal cost rate	14.25%
UAL rate [1]	1.09%
Employer pension contribution rate	15.34%
Member pension contribution rate	7.00%
Net pension contribution rate	**22.34%**
Retiree Healthcare	
Normal cost rate	0.17%
UAL rate	0.82%
Net retiree healthcare rate	**0.99%**
Total net employer contribution rate	**23.33%**

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

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Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2015 to June 2017 Biennium

The rate collar limits changes in contribution rates. The table below shows the possible minimum and maximum rates first effective as of July 1, 2015, which will depend on the funded status as of December 31, 2013. If the employer's funded status is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale.

For comparison, the funded status as of December 31, 2012 is 99%.

Funded Status as of December 31, 2013	70% to 130%	Under 60% or Over 140%
July 1, 2013 Normal Cost and UAL Rate	17.58%	17.58%
Minimum July 1, 2015 Rate	14.06%	10.54%
Maximum July 1, 2015 Rate	21.10%	24.62%

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Executive Summary

Accounting Information

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

Pension

We understand that non-pooled employers are considered to be participating in an Agent-Multiple Employer plan for purposes of their Tier 1/Tier 2 pension liabilities and a cost sharing plan for purposes of their OPSRP pension liabilities under Statement No. 27 of the Governmental Accounting Standards Board (GASB 27). The most recent rate-setting actuarial valuation, conducted as of December 31, 2011 and published in September 2012, provided information to assist in completion of the required plan-related financial reporting disclosures, including presenting the pension-related Annual Required Contribution (ARC) and Contractually Required Contribution (CRC) for the July 1, 2013 to June 30, 2015 biennium.

As directed by Senate Bill 822, enacted in May 2013, the actual pension rates paid by employers effective beginning July 1, 2013 were reduced compared to the contribution rates originally calculated in the December 31, 2011 actuarial valuation. However, because the full December 31, 2011 actuarial valuation was completed before the legislative changes, the individual employer ARC provided with that valuation does not reflect any adjustment for either Senate Bill 822 or the subsequent Senate Bill 861.

Accounting information provided in this and prior valuation reports are for the purpose of completing the reporting and disclosure requirements of GASB 27. In June 2012 the GASB issued Statement No. 68, which will replace GASB 27 and govern employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaces many of the key elements of the current reporting requirements, including the ARC. Under the new rules, employers will be required to record a balance sheet liability for unfunded pension obligations.

The accounting information provided in future actuarial valuation reports will be revised to reflect the transition to the new GASB standard.

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Executive Summary

Accounting Information (continued)

Required Supplementary Information

Schedule of Funding Progress

The Schedule of Funding Progress is required for the pension liabilities. The table below shows the schedule for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (b - a)	Funded Ratio (a ÷ b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a) ÷ c)
12/31/2007	$194,861,683	$171,208,564	($23,653,119)	114%	$17,376,971	(136%)
12/31/2008	147,366,398	177,501,923	30,135,525	83%	18,682,833	161%
12/31/2009	164,586,887	190,152,810	25,565,923	87%	17,662,896	145%
12/31/2010	185,835,730	222,034,366	36,198,636	84%	16,460,304	220%
12/31/2011	179,529,366	227,452,423	47,923,057	79%	16,638,870	288%
12/31/2012	204,859,267	207,638,427	2,779,160	99%	20,868,445	13%

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) and Retiree Health Insurance Premium Account (RHIPA) are cost-sharing pools under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2013 through June 30, 2015 was calculated as a part of the December 31, 2011 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

	Contractually Required Contribution
RHIA July 1, 2011 to June 30, 2013	0.59%
RHIPA July 1, 2011 to June 30, 2013	0.16%
RHIA July 1, 2013 to June 30, 2015	0.59%
RHIPA July 1, 2013 to June 30, 2015	0.27%

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Executive Summary

Principal Valuation Results

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

State Judiciary

	Actuarial Valuation as of	
	December 31, 2012	**December 31, 2011**
Total normal cost	$4,433,961	$4,806,985
Valuation payroll	20,868,445	16,638,870
Total normal cost rate (includes member contributions)	21.25%	28.89%
Actuarial accrued liability	$207,638,427	$227,452,423
Actuarial asset value	204,859,267	179,529,366
Unfunded actuarial accrued liability	2,779,160	47,923,057
Funded status	99%	79%
Combined valuation payroll	$20,868,445	$16,638,870
UAL as a percentage of payroll	13%	288%
UAL rate (includes Multnomah Fire District #10)	1.09%	(0.44%)
Allocated pooled RHIA UAL	437,829	431,038
Allocated pooled RHIPA UAL	479,405	209,232
Active members[1]	180	181
Dormant members	14	15
Retirees and beneficiaries	215	210

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

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Executive Summary

Principal Valuation Results (continued)

Retiree Healthcare

($ in millions)	Actuarial Valuation as of	
RHIA	**December 31, 2012**	**December 31, 2011**
Normal cost	$4.4	$5.8
Tier 1 / Tier 2 valuation payroll	5,341.7	5,607.9
Normal cost rate	0.08%	0.10%
Actuarial accrued liability	$471.8	$461.1
Actuarial asset value	291.6	239.6
Unfunded actuarial accrued liability	180.2	221.5
Funded status	62%	52%
Combined valuation payroll	$8,590.9	$8,550.5
UAL as a percentage of payroll	2%	3%
UAL rate	0.48%	0.49%

($ in millions)	Actuarial Valuation as of	
RHIPA	**December 31, 2012**	**December 31, 2011**
Normal cost	$1.4	$1.1
Tier 1 / Tier 2 valuation payroll	1,478.4	1,539.5
Normal cost rate	0.09%	0.07%
Actuarial accrued liability	$60.3	$34.4
Actuarial asset value	4.4	4.5
Unfunded actuarial accrued liability	55.9	29.9
Funded status	7%	13%
Combined valuation payroll	$2,432.4	$2,376.9
UAL as a percentage of payroll	2%	1%
UAL rate	0.34%	0.20%

RHIPA liabilities are allocated to State Agencies and the State Judiciary, the only employers participating in the RHIPA program.

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Pension Valuation Results

Assets

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

Summary of Market Value of Pension Assets

	December 31, 2012	December 31, 2011
1. Member reserves [1]	$32,814,759	$30,492,841
2. Employer reserves	91,163,022	72,426,409
3. Benefits in force reserve	80,881,487	76,610,116
4. Total market value of assets *(1. + 2. + 3.)*	**$204,859,267**	**$179,529,366**

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

Reconciliation of Pension Assets

	December 31, 2011 to December 31, 2012
1. Market value of assets at beginning of year	$179,529,366
2. Regular employer and member contributions	5,342,321
3. Benefit payments and expenses	(12,703,011)
4. Adjustments [2]	8,140,671
5. Interest credited	24,549,920
6. Total transferred from side accounts	0
7. Market value of assets at end of year *(1. + 2. + 3. + 4. + 5. + 6.)*	**$204,859,267**

[1] *For both the December 31, 2012 valuation and the December 31, 2011 valuation, reported member reserves were reduced to reflect the deficit status of the Tier 1 Rate Guarantee Reserve, as described in the system-wide report. The amount shown here is after this reduction.*

[2] *Note the adjustment item above includes a reallocation of the benefits in force reserve, exclusion of the negative Tier 1 Rate Guarantee Reserve from the member reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.*

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Pension Valuation Results

Liabilities

Normal Cost

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

Summary of Normal Cost

	December 31, 2012	December 31, 2011
Total Normal Cost	**$4,433,961**	**$4,806,985**

Change in Total Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2012.

	Before Changes	After Changes	Net Change
Total Normal Cost	$4,687,248	$4,433,961	($253,287)

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Pension Valuation Results

Liabilities (continued)

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits attributed to prior years of service by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount that would need to be set aside to provide for the benefits already earned to date.

	December 31, 2012	December 31, 2011
Active Members	$62,653,155	$79,403,264
Dormant Members	8,688,799	8,715,573
Retired Members and Beneficiaries	136,296,473	139,333,586
Total Actuarial Accrued Liability	**$207,638,427**	**$227,452,423**

Change in Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2012.

	Before Changes	After Changes	Net Change
Actuarial Accrued Liability	$233,896,021	$207,638,427	($26,257,594)

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Pension Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

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

	December 31, 2012	December 31, 2011
1. Actuarial accrued liability	$207,638,427	$227,452,423
2. Actuarial value of assets	204,859,267	179,529,366
3. Unfunded accrued liability *(1. – 2.)*	2,779,160	47,923,057
4. Funded percentage *(2. ÷ 1.)*	99%	79%
5. Valuation payroll	$20,868,445	$16,638,870
6. Unfunded accrued liability as % of valuation payroll *(3. ÷ 5.)*	13%	288%

Reconciliation of UAL Bases

Beginning with the December 31, 2007 actuarial valuation, each odd-year valuation has established a 20-year closed-period amortization base for outstanding regular UAL amounts. As part of the 2012 review of actuarial methods and assumptions, the PERS Board decided to reset the amortization period to 20 years effective with the December 31, 2013 valuation. This means the entire unamortized UAL will be re-amortized over a 20 year period in that valuation. For subsequent odd-year valuations, amortization schedules will be calculated based on the UAL as of that valuation date less the remaining unamortized balance of previously established UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2013, with the estimate based on experience through the end of 2012. The payment schedules for the unamortized balances as of December 31, 2012 have been modified to reflect the lowering of the investment return assumption first effective with that valuation.

Amortization Base	UAL December 31, 2011	Payment	Interest	UAL December 31, 2012	Next Year's Payment
December 31, 2012	N/A	N/A	N/A	$2,779,160	$201,155
Total				**$2,779,160**	**$201,155**

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Pension Valuation Results

Unfunded Accrued Liability (UAL) (continued)

Actuarial Gain or Loss since Prior Valuation

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

1. Expected actuarial accrued liability	
a. Actuarial accrued liability at December 31, 2011	$227,452,423
b. Total normal cost at December 31, 2011	4,806,985
c. Benefit payments during 2012	(12,603,573)
d. Interest at 8.0% to December 31, 2012	18,076,610
e. Expected actuarial accrued liability before changes *(a. + b. + c. + d.)*	237,732,445
f. Change in actuarial accrued liability due to assumption, method, and plan changes	(26,257,594)
g. Expected actuarial accrued liability at December 31, 2012 *(e. + f.)*	211,474,851
2. Actuarial accrued liability at December 31, 2012	207,638,427
3. Gain/(loss) on actuarial accrued liability *(1.g. – 2.)*	3,836,424
4. Expected actuarial value of assets	
a. Actuarial value of assets at December 31, 2011	179,529,366
b. Contributions for 2012[1]	5,342,321
c. Benefit payments and expenses during 2012	(12,703,011)
d. Interest at 8.0% to December 31, 2012	14,067,922
e. Expected actuarial value of assets at December 31, 2012 *(a. + b. + c. + d.)*	186,236,598
5. Actuarial value of assets at December 31, 2012	204,859,267
6. Gain/(loss) on actuarial value of assets *(5. - 4.e.)*	18,622,670
7. Total actuarial gain/(loss) *(3. + 6.)*	**$22,459,094**

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2010, is provided below.

1. UAL at December 31, 2011	**$47,923,057**
2. Expected increase	3,572,791
3. Liability (gain)/loss	(3,836,424)
4. Asset (gain)/loss	(18,622,670)
5. Change due to changes in assumptions, methods, and plan provisions	(26,257,594)
6. UAL at December 31, 2012 *(1. + 2. + 3. + 4. + 5.)*	**$2,779,160**

[1] *Excludes contributions for Multnomah Fire District.*

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Pension Valuation Results

Contribution Rate Development

Normal Cost Rate

For State Judiciary, the total normal cost calculated previously is divided by expected payroll to determine a total normal cost rate. The member contribution rate is subtracted from the total normal cost rate to determine the employer normal cost rate. The table below shows the development of the rate.

Development of Normal Cost Rate

	December 31, 2012			December 31, 2011		
	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost Rate	Normal Cost	Employer Tier 1/Tier 2 Valuation Payroll	NormalCost Rate
Total normal cost	$4,433,961	$20,868,445	21.25%	$4,806,985	$16,638,870	28.89%
Member contribution rate			(7.00%)			(7.00%)
Employer normal cost rate			14.25%			21.89%

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Pension Valuation Results

Contribution Rate Development (continued)

Development of UAL Rates

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

	December 31, 2012	December 31, 2011
1. Total UAL	$2,779,160	$47,923,057
2. Next year's UAL payment	201,155	3,570,546
3. Combined valuation payroll	20,868,445	16,638,870
4. UAL rate *(2. ÷ 3)*	0.96%	21.46%

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Pension Valuation Results

Contribution Rate Development (continued)

Pension Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate.

	Advisory July 1, 2015 Rates calculated as of December 31, 2012	July 1, 2013 Rates calculated as of December 31, 2011
1. Employer pension contribution rates		
a. Employer Normal Cost Rate	14.25%	21.89%
b. UAL rate	0.96%	21.46%
c. Multnomah Fire District #10 rate	0.13%	0.13%
d. Total employer pension rate *(a. + b. + c.)*	15.34%	43.48%
2. Member pension contribution rate	7.00%	7.00%
3. Total pension contribution rate	22.34%	50.48%

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Pension Valuation Results

Contribution Rate Development (continued)

Adjustments Due to Rate Collar

Employer contribution rates are generally limited to change by no more than the greater of 3 percentage points or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the collar is increased on a graded scale.

The table below shows the current contribution rate for the period from July 1, 2013 through June 30, 2015, develops the maximum and minimum contribution rates effective July 1, 2015 based on the collar, and calculates the net adjustment due to the collar

1. Current total pension contribution rate	24.58%
2. Current member contribution rate	7.00%
3. Current employer pension contribution rate *(1. - 2.)*	17.58%
4. Size of rate collar	
a. 20% of current employer contribution rate *(20% x 3.)*	3.52%
b. Preliminary size of rate collar *(maximum of 3% or a.)*	3.52%
c. Funded percentage	99%
d. Size of rate collar *(If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.)*	3.52%
5. July 1, 2015 minimum employer contribution rate *(3. – 4.d.)*	14.06%
6. July 1, 2015 maximum employer contribution rate *(3. + 4.d.)*	21.10%
7. July 1, 2015 total employer pension rate, before adjustment	15.34%
8. Net adjustment due to rate collar *(5. – 7., but not < 0, or 6. – 7., but not > 0)*	0.00%
9. July 1, 2015 pension UAL rate, before collar	0.96%
10. July 1, 2015 pension UAL rate, after collar *(8. + 9.)*	0.96%
11. July 1, 2015 total employer pension rate, after collar *(7. + 8.)*	15.34%

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Pension Valuation Results

Contribution Rate Development (continued)

Pension Contribution Rate Summary (Post Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar. The rates calculated as of December 31, 2011, in the table below are prior to reflecting the effects of Senate Bills 822 and 861.

	Advisory July 1, 2015 Rates calculated as of December 31, 2012	July 1, 2013 Rates calculated as of December 31, 2011
1. Employer pension contribution rates		
a. Employer normal cost rate	14.25%	21.89%
b. UAL rate	0.96%	(0.57%)
c. Multnomah FD #10 rate	0.13%	0.13%
d. Total employer pension rate *(a. + b. + c., minimum 0.00%)*	15.34%	21.45%
2. Member pension contribution rate	7.00%	7.00%
3. Total pension contribution rate	22.34%	28.45%

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Data

Demographic Information

State Judiciary Member Census

	December 31, 2012	December 31, 2011
Active Members[1]	180	181
Active Members with previous service segments with the employer	0	1
Dormant Members	14	15
Retired Members and Beneficiaries	215	210
Grand Total Number of Members	**409**	**407**

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

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Data

Demographic Information (continued)

State Judiciary Active Members as of December 31, 2012

	Years of Service									
Age	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30-34**	**35-39**	**40+**	**Total**
<20										
20-24										
25-29										
30-34										
35-39	1	1								**2**
40-44	7	1	1	2						**11**
45-49	12	5	2	4	1					**24**
50-54	7	10	9	3	8					**37**
55-59	4	4	8	7	9	4	2			**38**
60-64	1	8	8	11	8	5	3			**44**
65-69		2	5	6	3	1	2	1		**20**
70-74			2	1				1		**4**
75+										
Total	**32**	**31**	**35**	**34**	**29**	**10**	**7**	**2**	**0**	**180**

Distribution of State Judiciary Dormant Members

Age	Count	Average Deferred Monthly Benefit
<20		
20-24		
25-29		
30-34		
35-39		
40-44		
45-49		
50-54		
55-59	1	4,716
60-64	7	2,505
65-69	3	8,611
70-74	1	12,733
75+	2	4,460
Total	14	4,981

Distribution of State Judiciary Retired Members and Beneficiaries

Age	Count	Average Monthly Benefit
<45		
45-49		
50-54		
55-59		
60-64	28	6,072
65-69	46	6,366
70-74	41	5,622
75-79	25	5,839
80-84	31	5,527
85-89	23	4,373
90-94	15	3,853
95-99	6	3,853
100+		
Total	215	5,545

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Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2012, valuation can be found in the system-wide report.

Actuarial Methods and Valuation Procedures

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

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

Economic Assumptions

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

Net investment return	7.75% compounded annually on system assets.
Interest crediting	7.75% compounded annually on members' regular account balances starting in 2014. 7.75% compounded annually on members' variable account balances starting in 2014.
Consumer price inflation	2.75% per year.
Future general wage inflation	3.75% per year.
Healthcare cost inflation	Ranging from 8.0% in 2013 to 4.7% in 2083.
OPSRP Administrative Expenses	$5.5 million added to OPSRP normal cost.

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Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2011 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

Changes in Actuarial Methods and Valuation Procedures

- **Actuarial Cost Method**

  The Cost Method was changed from the Projected Unit Credit (PUC) Cost Method to the Entry Age Normal (EAN) Cost Method.

- **Tier 1/Tier 2 UAL Amortization**

  In combination with the change in cost method, the Board chose to re-amortize the outstanding Tier 1/Tier 2 UAL as of December 31, 2013 over a closed period of 20 years. Gains and losses between subsequent rate-setting valuations will be amortized over a closed 20 year period from the valuation in which they are first recognized.

- **Contribution Rate Stabilization Method**

  The “grade-in range” over which the rate collar gradually doubles was modified so that the collar doubles as funded status (excluding side accounts) decreases from 70% to 60% or increases from 130% to 140%. Previously the ranges had been 80% to 70% and 120% to 130%.

- **Allocation of Liability for Service Segments**

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

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

  The assumed investment return and interest crediting rate was reduced to 7.75%. Previously, the assumed investment return and interest crediting to regular account balances was 8.00% and the assumed interest crediting to variable account balances was 8.25%.

- **OPSRP Administrative Expenses**

  Assumed administrative expenses were reduced from $6.6 million per year to $5.5 million per year.

Changes in Demographic Assumptions

- **Healthy Mortality**

  The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience.

- **Disability, Retirement from Active Status, and Termination**

  Rates for disability, retirement from active status, and termination were adjusted. Termination rates were changed from being indexed upon age to being indexed upon duration from hire date.

A complete summary of all assumptions used as part of the December 31, 2012 actuarial valuation is contained in the system-wide report.

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Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2011, actuarial valuation:

- Senate Bill 822, signed into law in May 2013, eliminated the SB 656/HB 3349 tax remedy payments for beneficiaries not subject to Oregon income tax and limited the 2013 post-retirement COLA to 1.5% of annual benefit. The effects of this legislation were reflected in this valuation.
- Senate Bill 861, signed into law in October 2013, limited the post-retirement COLA for years beyond 2013 to 1.25% on the first $60,000 of annual benefit and 0.15% on annual benefits above $60,000. The effects of this legislation were reflected in this valuation.
- Senate Bill 862, signed into law in October 2013, makes targeted changes such as allowing garnishment of PERS benefits for convicted felons. These changes do not significantly affect System liabilities and were not reflected in the valuation.

A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide valuation report.

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Glossary

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

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

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

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

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

Agent Multiple-Employer Plan (Agent Plan). An aggregation of single-employer plans, with pooled administrative and investment functions. Separate accounts are maintained for each employer so that the employer’s contributions provide benefits only for the employees of that employer. A separate actuarial valuation is performed for each individual employer’s plan to determine the employer’s periodic contribution rate and other information for the individual plan.

Annual Required Contribution (ARC). A financial reporting calculation under GASB 27 that expresses the program cost as a percentage of payroll.

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

Cost Sharing Multiple-Employer Plan. A single plan with pooling (cost-sharing) arrangements for the participating employers. All risks, rewards, and costs, including benefit costs, are shared and are not attributed individually to employers.

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

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

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Glossary

Net Pension Obligation (NPO). The cumulative difference since the effective date of GASB 27 between annual pension cost and the employer's contributions to the plan, including the pension liability (asset) at transition, and excluding (a) short-term differences and (b) unpaid contributions that have been converted to pension-related debt.

Normal Cost. The annual cost assigned 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. The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

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

Present Value. Sometimes called "actuarial present value," the current worth (on the valuation date) of an amount or series of amounts payable or receivable in the future. 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 period-to-period change in employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

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

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27). The accounting standard governing a state or local governmental employer's accounting for pensions.

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

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

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

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

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