

November 2015

Salem Housing Authority/2747
Oregon Public Employees Retirement System

Dear Sir or Madam:

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

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

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

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

Contents of Report

The executive summary provides the basic information you need including:

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

The remainder of the report provides additional information including:

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

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



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

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

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

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

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



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

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

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

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

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

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

Sincerely,

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

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

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

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



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Salem Housing Authority -- #2747

November 2015

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Executive Summary

Milliman has prepared this report for Salem Housing Authority to:

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

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

Employer Contribution Rates

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

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

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

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

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

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

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

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

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

Executive Summary

Accounting Information

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

Pension

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

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

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

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

Retiree Healthcare

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

Contractually Required Contribution Rate

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

Executive Summary

Principal Valuation Results

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

Salem Housing Authority

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

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

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

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

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

Executive Summary

Principal Valuation Results (continued)

OPSRP

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

Retiree Healthcare

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

Side Account Information

Reconciliation of Side Accounts

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

All information in this table has been provided by PERS.

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

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

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

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

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

Tier 1/Tier 2 Valuation Results

Assets

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

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

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

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

Reconciliation of Tier 1/Tier 2 Pension Assets

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

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

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

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

Summary of Normal Cost by Tier/Member Classification

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

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

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

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

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

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

Summary of Actuarial Accrued Liability by Tier/Member Classification

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

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

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

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

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

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

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

Reconciliation of UAL Bases

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

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

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

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

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

Unfunded Accrued Liability Reconciliation

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

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

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

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

Development of Tier 1/Tier 2 Normal Cost Rate

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

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

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

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

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

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

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

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

Data

Demographic Information

Employer Valuation Payroll

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

Employer Member Census

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

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

Data

Demographic Information (continued)

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

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

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

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|-----------|----------------------------------|-----------------------------------|-----------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | 1 | 1,215 |
| 30-34 | 1 | 9 | 55-59 | 3 | 1,074 |
| 35-39 | 2 | 405 | 60-64 | 10 | 1,146 |
| 40-44 | | | 65-69 | 19 | 1,572 |
| 45-49 | 1 | 638 | 70-74 | 7 | 1,071 |
| 50-54 | 1 | 1,824 | 75-79 | 4 | 1,502 |
| 55-59 | 4 | 1,479 | 80-84 | 2 | 2,215 |
| 60-64 | 4 | 930 | 85-89 | | |
| 65-69 | 2 | 824 | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | 15 | 971 | Total | 46 | 1,385 |

Brief Summary of Actuarial Methods and Assumptions

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

Actuarial Methods and Valuation Procedures

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

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

Economic Assumptions

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

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

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

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

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

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

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

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

- **Inflation**

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

- **Payroll Growth**

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

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

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

Changes in Demographic Assumptions

- **Mortality**

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

- **Disability, Retirement, and Termination**

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

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

Brief Summary of Changes in Plan Provisions

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

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

Glossary

Actuarial Accrued Liability

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

Actuarial Asset Value

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

Actuarial Assumptions

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

Actuarial Cost Method

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

Actuarial Gain or (Loss)

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

Combined Valuation Payroll

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

Cost Sharing Multiple-Employer Plan

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

Employer Contribution Rate

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

Funded Status

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

Normal Cost

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

OPSRP Valuation Payroll

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

Glossary

Pre-SLGRP Liability

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

Pre-SLGRP Pooled Liability

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

Present Value

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

Rate Collar

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

Required Supplementary Information (RSI)

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

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

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

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

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

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

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

Tier 1/Tier 2 Valuation Payroll

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

Transition Liability

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

Unfunded Accrued Liability (UAL)

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



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

November 2015

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

Dear Sir or Madam:

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

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

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

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

Contents of Report

The executive summary provides the basic information you need including:

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

The remainder of the report provides additional information including:

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

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



November 2015
Salmon Harbor-Douglas County/2675

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

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

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

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

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



November 2015
Salmon Harbor-Douglas County/2675

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

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

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

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

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

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

Sincerely,

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

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

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

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



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Salmon Harbor-Douglas County -- #2675

November 2015

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Executive Summary

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

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

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

Employer Contribution Rates

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

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

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

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

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

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

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

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

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

Executive Summary

Accounting Information

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

Pension

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

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

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

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

Retiree Healthcare

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

Contractually Required Contribution Rate

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

Executive Summary

Principal Valuation Results

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

Salmon Harbor-Douglas County

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

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

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

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

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

Executive Summary

Principal Valuation Results (continued)

OPSRP

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

Retiree Healthcare

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

Side Account Information

Reconciliation of Side Accounts

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

All information in this table has been provided by PERS.

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

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

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

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

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

Tier 1/Tier 2 Valuation Results

Assets

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

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

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

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

Reconciliation of Tier 1/Tier 2 Pension Assets

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

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

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

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

Summary of Normal Cost by Tier/Member Classification

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

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

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

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

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

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

Summary of Actuarial Accrued Liability by Tier/Member Classification

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

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

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

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

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

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

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

Reconciliation of UAL Bases

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

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

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

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

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

Unfunded Accrued Liability Reconciliation

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

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

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

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

Development of Tier 1/Tier 2 Normal Cost Rate

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

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

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

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

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

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

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

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

Data

Demographic Information

Employer Valuation Payroll

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

Employer Member Census

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

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

Data

Demographic Information (continued)

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

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

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

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|----------|----------------------------------|-----------------------------------|----------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | | |
| 35-39 | | | 60-64 | 2 | 1,592 |
| 40-44 | | | 65-69 | 3 | 537 |
| 45-49 | | | 70-74 | 1 | 84 |
| 50-54 | | | 75-79 | 1 | 251 |
| 55-59 | | | 80-84 | 1 | 1,651 |
| 60-64 | | | 85-89 | | |
| 65-69 | 1 | 135 | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | 1 | 135 | Total | 8 | 847 |

Brief Summary of Actuarial Methods and Assumptions

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

Actuarial Methods and Valuation Procedures

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

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

Economic Assumptions

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

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

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

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

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

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

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

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

- **Inflation**

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

- **Payroll Growth**

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

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

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

Changes in Demographic Assumptions

- **Mortality**

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

- **Disability, Retirement, and Termination**

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

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

Brief Summary of Changes in Plan Provisions

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

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

Glossary

Actuarial Accrued Liability

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

Actuarial Asset Value

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

Actuarial Assumptions

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

Actuarial Cost Method

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

Actuarial Gain or (Loss)

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

Combined Valuation Payroll

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

Cost Sharing Multiple-Employer Plan

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

Employer Contribution Rate

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

Funded Status

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

Normal Cost

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

OPSRP Valuation Payroll

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

Glossary

Pre-SLGRP Liability

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

Pre-SLGRP Pooled Liability

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

Present Value

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

Rate Collar

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

Required Supplementary Information (RSI)

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

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

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

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

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

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

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

Tier 1/Tier 2 Valuation Payroll

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

Transition Liability

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

Unfunded Accrued Liability (UAL)

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



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

November 2015

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

Dear Sir or Madam:

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

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

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

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

Contents of Report

The executive summary provides the basic information you need including:

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

The remainder of the report provides additional information including:

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

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



November 2015
Siletz Rural Fire Protection District/2885

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

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

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

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

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



November 2015
Siletz Rural Fire Protection District/2885

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

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

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

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

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

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

Sincerely,

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

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

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

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



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Siletz Rural Fire Protection District -- #2885

November 2015

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Executive Summary

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

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

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

Employer Contribution Rates

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

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

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

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

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

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

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

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

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

Executive Summary

Accounting Information

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

Pension

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

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

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

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

Retiree Healthcare

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

Contractually Required Contribution Rate

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

Executive Summary

Principal Valuation Results

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

Siletz Rural Fire Protection District

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

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

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

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

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

Executive Summary

Principal Valuation Results (continued)

OPSRP

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

Retiree Healthcare

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

Side Account Information

Reconciliation of Side Accounts

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

All information in this table has been provided by PERS.

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

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

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

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

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

Tier 1/Tier 2 Valuation Results

Assets

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

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

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

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

Reconciliation of Tier 1/Tier 2 Pension Assets

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

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

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

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

Summary of Normal Cost by Tier/Member Classification

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

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

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

| | Before Changes | After Changes | Net Change |
|-------------|----------------|---------------|------------|
| Normal Cost | \$0 | \$0 | \$0 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

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

Summary of Actuarial Accrued Liability by Tier/Member Classification

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

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

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

| | Before Changes | After Changes | Net Change |
|-----------------------------|-------------------|------------------|---------------|
| Actuarial Accrued Liability | \$0 | \$0 | \$0 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

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

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

Reconciliation of UAL Bases

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

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

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

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

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

Unfunded Accrued Liability Reconciliation

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

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

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

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

Development of Tier 1/Tier 2 Normal Cost Rate

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

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

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

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

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

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

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

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

Data

Demographic Information

Employer Valuation Payroll

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

Employer Member Census

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

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

Data

Demographic Information (continued)

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

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

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

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|-------|----------------------------------|-----------------------------------|-------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | | |
| 35-39 | | | 60-64 | | |
| 40-44 | | | 65-69 | | |
| 45-49 | | | 70-74 | | |
| 50-54 | | | 75-79 | | |
| 55-59 | | | 80-84 | | |
| 60-64 | | | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | | | Total | | |

Brief Summary of Actuarial Methods and Assumptions

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

Actuarial Methods and Valuation Procedures

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

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

Economic Assumptions

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

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

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

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

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

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

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

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

- **Inflation**

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

- **Payroll Growth**

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

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

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

Changes in Demographic Assumptions

- **Mortality**

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

- **Disability, Retirement, and Termination**

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

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

Brief Summary of Changes in Plan Provisions

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

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

Glossary

Actuarial Accrued Liability

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

Actuarial Asset Value

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

Actuarial Assumptions

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

Actuarial Cost Method

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

Actuarial Gain or (Loss)

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

Combined Valuation Payroll

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

Cost Sharing Multiple-Employer Plan

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

Employer Contribution Rate

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

Funded Status

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

Normal Cost

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

OPSRP Valuation Payroll

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

Glossary

Pre-SLGRP Liability

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

Pre-SLGRP Pooled Liability

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

Present Value

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

Rate Collar

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

Required Supplementary Information (RSI)

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

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

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

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

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

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

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

Tier 1/Tier 2 Valuation Payroll

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

Transition Liability

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

Unfunded Accrued Liability (UAL)

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



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

November 2015

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

Dear Sir or Madam:

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

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

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

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

Contents of Report

The executive summary provides the basic information you need including:

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

The remainder of the report provides additional information including:

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

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



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

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

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

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

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

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



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

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

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

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

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

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

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

Sincerely,

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

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

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

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



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

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

November 2015

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Executive Summary

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

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

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

Employer Contribution Rates

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

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

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

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

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

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

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

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

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

Executive Summary

Accounting Information

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

Pension

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

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

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

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

Retiree Healthcare

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

Contractually Required Contribution Rate

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

Executive Summary

Principal Valuation Results

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

Sisters-Camp Sherman Rural Fire Protection District

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

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

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

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

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

Executive Summary

Principal Valuation Results (continued)

OPSRP

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

Retiree Healthcare

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

Side Account Information

Reconciliation of Side Accounts

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

All information in this table has been provided by PERS.

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

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

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

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

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

Tier 1/Tier 2 Valuation Results

Assets

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

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

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

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

Reconciliation of Tier 1/Tier 2 Pension Assets

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

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

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

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

Summary of Normal Cost by Tier/Member Classification

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

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

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

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

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

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

Summary of Actuarial Accrued Liability by Tier/Member Classification

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

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

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

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

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

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

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

Reconciliation of UAL Bases

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

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

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

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

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

Unfunded Accrued Liability Reconciliation

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

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

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

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

Development of Tier 1/Tier 2 Normal Cost Rate

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

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

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

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

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

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

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

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

Data

Demographic Information

Employer Valuation Payroll

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

Employer Member Census

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

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

Data

Demographic Information (continued)

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

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

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

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|----------|----------------------------------|-----------------------------------|----------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | 2 | 4,230 |
| 35-39 | | | 60-64 | 1 | 6 |
| 40-44 | 1 | 1,474 | 65-69 | 2 | 2,108 |
| 45-49 | 2 | 2,119 | 70-74 | 1 | 1,171 |
| 50-54 | | | 75-79 | 1 | 338 |
| 55-59 | | | 80-84 | | |
| 60-64 | | | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | 3 | 1,904 | Total | 7 | 2,027 |

Brief Summary of Actuarial Methods and Assumptions

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

Actuarial Methods and Valuation Procedures

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

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

Economic Assumptions

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

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

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

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

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

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

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

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

- **Inflation**

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

- **Payroll Growth**

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

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

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

Changes in Demographic Assumptions

- **Mortality**

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

- **Disability, Retirement, and Termination**

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

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

Brief Summary of Changes in Plan Provisions

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

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

Glossary

Actuarial Accrued Liability

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

Actuarial Asset Value

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

Actuarial Assumptions

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

Actuarial Cost Method

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

Actuarial Gain or (Loss)

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

Combined Valuation Payroll

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

Cost Sharing Multiple-Employer Plan

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

Employer Contribution Rate

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

Funded Status

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

Normal Cost

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

OPSRP Valuation Payroll

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

Glossary

Pre-SLGRP Liability

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

Pre-SLGRP Pooled Liability

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

Present Value

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

Rate Collar

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

Required Supplementary Information (RSI)

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

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

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

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

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

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

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

Tier 1/Tier 2 Valuation Payroll

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

Transition Liability

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

Unfunded Accrued Liability (UAL)

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



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

November 2015

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

Dear Sir or Madam:

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

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

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

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

Contents of Report

The executive summary provides the basic information you need including:

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

The remainder of the report provides additional information including:

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

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



November 2015
South Lane County Fire and Rescue/2859

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

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

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

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

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



November 2015
South Lane County Fire and Rescue/2859

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

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

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

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

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

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

Sincerely,

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

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

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

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



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

South Lane County Fire and Rescue -- #2859

November 2015

Secondary Employers

2827 Creswell Rural Fire Protection District

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Executive Summary

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

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

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

Employer Contribution Rates

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

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

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

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

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

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

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

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

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

Executive Summary

Accounting Information

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

Pension

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

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

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

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

Retiree Healthcare

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

Contractually Required Contribution Rate

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

Executive Summary

Principal Valuation Results

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

South Lane County Fire and Rescue

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

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

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

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

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

Executive Summary

Principal Valuation Results (continued)

OPSRP

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

Retiree Healthcare

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

Side Account Information

Reconciliation of Side Accounts

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

All information in this table has been provided by PERS.

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

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

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

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

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

Tier 1/Tier 2 Valuation Results

Assets

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

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

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

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

Reconciliation of Tier 1/Tier 2 Pension Assets

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

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

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

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

Summary of Normal Cost by Tier/Member Classification

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

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

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

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

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

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

Summary of Actuarial Accrued Liability by Tier/Member Classification

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

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

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

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

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

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

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

Reconciliation of UAL Bases

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

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

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

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

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

Unfunded Accrued Liability Reconciliation

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

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

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

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

Development of Tier 1/Tier 2 Normal Cost Rate

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

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

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

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

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

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

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

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

Data

Demographic Information

Employer Valuation Payroll

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

Employer Member Census

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

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

Data

Demographic Information (continued)

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

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

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

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|----------|----------------------------------|-----------------------------------|----------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | 3 | 953 |
| 35-39 | | | 60-64 | 4 | 1,683 |
| 40-44 | | | 65-69 | 1 | 397 |
| 45-49 | 1 | 224 | 70-74 | | |
| 50-54 | | | 75-79 | | |
| 55-59 | 2 | 36 | 80-84 | | |
| 60-64 | | | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | 3 | 98 | Total | 8 | 1,248 |

Brief Summary of Actuarial Methods and Assumptions

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

Actuarial Methods and Valuation Procedures

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

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

Economic Assumptions

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

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

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

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

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

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

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

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

- **Inflation**

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

- **Payroll Growth**

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

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

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

Changes in Demographic Assumptions

- **Mortality**

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

- **Disability, Retirement, and Termination**

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

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

Brief Summary of Changes in Plan Provisions

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

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

Glossary

Actuarial Accrued Liability

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

Actuarial Asset Value

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

Actuarial Assumptions

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

Actuarial Cost Method

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

Actuarial Gain or (Loss)

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

Combined Valuation Payroll

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

Cost Sharing Multiple-Employer Plan

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

Employer Contribution Rate

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

Funded Status

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

Normal Cost

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

OPSRP Valuation Payroll

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

Glossary

Pre-SLGRP Liability

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

Pre-SLGRP Pooled Liability

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

Present Value

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

Rate Collar

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

Required Supplementary Information (RSI)

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

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

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

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

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

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

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

Tier 1/Tier 2 Valuation Payroll

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

Transition Liability

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

Unfunded Accrued Liability (UAL)

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



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

November 2015

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

Dear Sir or Madam:

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

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

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

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

Contents of Report

The executive summary provides the basic information you need including:

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

The remainder of the report provides additional information including:

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

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



November 2015
Southwestern Polk County Rural Fire Protection District/2803

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

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

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

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

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



November 2015
Southwestern Polk County Rural Fire Protection District/2803

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

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

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

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

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

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

Sincerely,

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

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

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

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



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Southwestern Polk County Rural Fire Protection District -- #2803

November 2015

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Executive Summary

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

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

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

Employer Contribution Rates

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

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

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

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

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

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

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

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

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

Executive Summary

Accounting Information

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

Pension

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

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

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

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

Retiree Healthcare

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

Contractually Required Contribution Rate

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

Executive Summary

Principal Valuation Results

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

Southwestern Polk County Rural Fire Protection District

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

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

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

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

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

Executive Summary

Principal Valuation Results (continued)

OPSRP

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

Retiree Healthcare

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

Side Account Information

Reconciliation of Side Accounts

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

All information in this table has been provided by PERS.

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

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

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

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

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

Tier 1/Tier 2 Valuation Results

Assets

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

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

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

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

Reconciliation of Tier 1/Tier 2 Pension Assets

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

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

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

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

Summary of Normal Cost by Tier/Member Classification

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

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

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

| | Before Changes | After Changes | Net Change |
|-------------|----------------|---------------|------------|
| Normal Cost | \$0 | \$0 | \$0 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

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

Summary of Actuarial Accrued Liability by Tier/Member Classification

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

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

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

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

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

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

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

Reconciliation of UAL Bases

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

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

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

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

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

Unfunded Accrued Liability Reconciliation

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

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

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

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

Development of Tier 1/Tier 2 Normal Cost Rate

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

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

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

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

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

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

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

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

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

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

Data

Demographic Information

Employer Valuation Payroll

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

Employer Member Census

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

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

Data

Demographic Information (continued)

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

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

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

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|-------|----------------------------------|-----------------------------------|----------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | | |
| 35-39 | | | 60-64 | | |
| 40-44 | | | 65-69 | 1 | 83 |
| 45-49 | | | 70-74 | 1 | 348 |
| 50-54 | | | 75-79 | | |
| 55-59 | | | 80-84 | | |
| 60-64 | | | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | | | Total | 2 | 216 |

Brief Summary of Actuarial Methods and Assumptions

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

Actuarial Methods and Valuation Procedures

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

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

Economic Assumptions

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

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

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

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

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

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

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

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

- **Inflation**

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

- **Payroll Growth**

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

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

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

Changes in Demographic Assumptions

- **Mortality**

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

- **Disability, Retirement, and Termination**

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

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

Brief Summary of Changes in Plan Provisions

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

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

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called "funding method," a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

November 2015

Springfield Utility Board/2767
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.



November 2015
Springfield Utility Board/2767

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



November 2015
Springfield Utility Board/2767

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Springfield Utility Board -- #2767

November 2015

This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

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Executive Summary

Milliman has prepared this report for Springfield Utility Board to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Springfield Utility Board.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Springfield Utility Board

| | Payroll | | |
|---|---------------|-----------------|---------------|
| | Tier 1/Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| Pension | | | |
| Normal cost rate | 16.03% | 8.10% | 12.90% |
| Tier 1/Tier 2 UAL rate ¹ | (4.62%) | (4.62%) | (4.62%) |
| OPSRP UAL rate | 1.01% | 1.01% | 1.01% |
| Side account rate relief | 0.00% | 0.00% | 0.00% |
| Net pension contribution rate | 12.42% | 4.49% | 9.29% |
| Retiree Healthcare | | | |
| Normal cost rate | 0.07% | 0.00% | 0.00% |
| UAL rate | 0.43% | 0.43% | 0.43% |
| Net retiree healthcare rate | 0.50% | 0.43% | 0.43% |
| Total net employer contribution rate | 12.92% | 4.92% | 9.72% |

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 98%.

| Funded Status as of December 31, 2015 | 70% to 130% | Under 60% or Over 140% |
|--|--------------------|-------------------------------|
| 2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate | 8.41% | 8.41% |
| Minimum 2017-2019 Rate | 5.41% | 2.41% |
| Maximum 2017-2019 Rate | 11.41% | 14.41% |

Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b - a) | Funded Ratio (a ÷ b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a) ÷ c) |
|--------------------------|-------------------------------|---------------------------------------|----------------------|----------------------|---------------------|---|
| 12/31/2009 | \$204,111 | \$219,285 | \$15,174 | 93% | \$78,307 | 19% |
| 12/31/2010 | 234,185 | 240,917 | 6,732 | 97% | 77,075 | 9% |
| 12/31/2011 | 248,311 | 257,708 | 9,397 | 96% | 79,824 | 12% |
| 12/31/2012 | 292,221 | 250,720 | (41,501) | 117% | 83,649 | (50%) |
| 12/31/2013 | 336,955 | 291,087 | (45,868) | 116% | 86,946 | (53%) |
| 12/31/2014 | 366,511 | 375,364 | 8,853 | 98% | 90,502 | 10% |

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

| | Payroll | | |
|-------------------------------|-----------------|-----------------|---------------|
| | Tier 1 / Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| July 1, 2013 to June 30, 2015 | 0.59% | 0.49% | 0.49% |
| July 1, 2015 to June 30, 2017 | 0.53% | 0.45% | 0.45% |

Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Springfield Utility Board

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| T1/T2 UAL | \$8,853 | (\$45,868) |
| Allocated pooled OPSRP UAL | 10,346 | 6,148 |
| Side account | 0 | 0 |
| Net unfunded pension actuarial accrued liability | 19,199 | (39,720) |
| Combined valuation payroll | 90,502 | 86,946 |
| Net pension UAL as a percentage of payroll | 21% | (46%) |
| Calculated side account rate relief | 0.00% | 0.00% |
| Allocated pooled RHIA UAL | \$719 | \$1,203 |

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| Normal cost | \$14,506 | \$11,744 |
| Tier 1/Tier 2 valuation payroll | 90,502 | 86,946 |
| Tier 1/Tier 2 pension normal cost rate | 16.03% | 13.51% |
| Tier 1/ Tier 2 Actuarial accrued liability | \$375,364 | \$291,087 |
| Actuarial asset value | 366,511 | 336,955 |
| Tier 1/Tier 2 Unfunded actuarial accrued liability | 8,853 | (45,868) |
| Tier 1/ Tier 2 Funded status | 98% | 116% |
| Combined valuation payroll | \$90,502 | \$86,946 |
| Tier 1/Tier 2 UAL as a percentage of payroll | 10% | (53%) |
| Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10) | (4.62%) | (5.10%) |
| Tier 1/Tier 2 active members ¹ | 1 | 1 |
| Tier 1/Tier 2 dormant members | 0 | 0 |
| Tier 1/Tier 2 retirees and beneficiaries | 0 | 0 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Executive Summary

Principal Valuation Results (continued)

OPSRP

| (\$ in millions) | Actuarial Valuation as of | |
|---|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| General service normal cost | \$301.3 | \$234.7 |
| OPSRP general service valuation payroll | 3,720.4 | 3,200.0 |
| General service normal cost rate | 8.10% | 7.33% |
| Police and fire normal cost | \$59.6 | \$45.5 |
| OPSRP police and fire valuation payroll | 462.3 | 398.1 |
| Police and fire normal cost rate | 12.90% | 11.44% |
| Actuarial accrued liability | \$3,064.1 | \$2,243.3 |
| Actuarial asset value | 2,024.6 | 1,630.2 |
| Unfunded actuarial accrued liability | 1,039.5 | 613.2 |
| Funded status | 66% | 73% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 11% | 7% |
| UAL rate | 1.01% | 0.61% |

Retiree Healthcare

| (\$ in millions) | Actuarial Valuation as of | |
|--------------------------------------|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| RHIA | | |
| Normal cost | \$3.5 | \$4.0 |
| Tier 1 / Tier 2 valuation payroll | 4,933.1 | 5,073.7 |
| Normal cost rate | 0.07% | 0.08% |
| Actuarial accrued liability | \$468.4 | \$473.6 |
| Actuarial asset value | 395.9 | 353.5 |
| Unfunded actuarial accrued liability | 72.5 | 120.0 |
| Funded status | 85% | 75% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 1% | 1% |
| UAL rate | 0.43% | 0.45% |

Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

| | New | Continuing | Total |
|---|------------|------------|-------|
| 1. Side account as of December 31, 2013 | N/A | | |
| 2. Deposits made during 2014 | | N/A | |
| 3. Administrative expenses | | | |
| 4. Amount transferred to employer reserves during 2014 | | | |
| 5. Side account earnings during 2014 | | | |
| 6. Side account as of December 31, 2014 (1. + 2. + 3. + 4. + 5.) | | | |

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Total side account | \$0 | \$0 |
| 2. Combined valuation payroll | 90,502 | 86,946 |
| 3. Amortization factor | 10.118 | 10.703 |
| 4. Total side account rate (-1. ÷ 2. ÷ 3.)¹ | 0.00% | 0.00% |

¹ For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.

Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Member reserves | \$120,448 | \$112,197 |
| 2. Employer reserves | 246,063 | 224,758 |
| 3. Benefits in force reserve | 0 | 0 |
| 4. Total market value of assets (1. + 2. + 3.) | \$366,511 | \$336,955 |

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

| | December 31, 2013 to December 31, 2014 |
|---|---|
| 1. Market value of assets at beginning of year | \$336,955 |
| 2. Regular employer contributions | 4,710 |
| 3. Benefit payments and expense | 0 |
| 4. Adjustments ¹ | (286) |
| 5. Interest credited | 25,133 |
| 6. Total transferred from side accounts | 0 |
| 7. Market value of assets at end of year (1. + 2. + 3. + 4. + 5. + 6.) | \$366,511 |

¹ Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|------------------------|-------------------|-------------------|
| Tier 1 Police & Fire | \$0 | \$0 |
| Tier 1 General Service | 14,506 | 11,744 |
| Tier 2 Police & Fire | 0 | 0 |
| Tier 2 General Service | 0 | 0 |
| Total | \$14,506 | \$11,744 |

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-------------|----------------|---------------|------------|
| Normal Cost | \$12,224 | \$14,506 | \$2,282 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| Active Members | | |
| ▪ Tier 1 Police & Fire | \$0 | \$0 |
| ▪ Tier 1 General Service | 375,364 | 291,087 |
| ▪ Tier 2 Police & Fire | 0 | 0 |
| ▪ Tier 2 General Service | 0 | 0 |
| ▪ Total Active Members | \$375,364 | \$291,087 |
| Dormant Members | 0 | 0 |
| Retired Members and Beneficiaries | 0 | 0 |
| Total Actuarial Accrued Liability | \$375,364 | \$291,087 |

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-----------------------------|----------------|---------------|------------|
| Actuarial Accrued Liability | \$325,310 | \$375,364 | \$50,054 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Actuarial accrued liability | \$375,364 | \$291,087 |
| 2. Actuarial value of assets | 366,511 | 336,955 |
| 3. Unfunded accrued liability (1. – 2.) | 8,853 | (45,868) |
| 4. Funded percentage (2. ÷ 1.) | 98% | 116% |
| 5. Combined valuation payroll | \$90,502 | \$86,946 |
| 6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.) | 10% | (53%) |

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

| Amortization Base | UAL December 31, 2013 | Payment | Interest | UAL December 31, 2014 | Next Year's Payment |
|-------------------|--------------------------|-----------|-----------|--------------------------|------------------------|
| December 31, 2013 | (\$45,868) | (\$3,320) | (\$3,418) | (\$45,966) | (\$3,443) |
| December 31, 2014 | N/A | N/A | N/A | \$54,819 | \$3,967 |
| Total | | | | \$8,853 | \$524 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

| | |
|--|----------------|
| 1. Expected actuarial accrued liability | |
| a. Actuarial accrued liability at December 31, 2013 | \$291,087 |
| b. Normal cost at December 31, 2013 | 11,744 |
| c. Benefit payments during 2014 | 0 |
| d. Interest at 7.75% to December 31, 2014 | 23,014 |
| e. Expected actuarial accrued liability before changes (a. + b. + c. + d.) | 325,845 |
| f. Change in actuarial accrued liability due to assumption, method, and plan changes | 50,054 |
| g. Expected actuarial accrued liability at December 31, 2014 (e. + f.) | 375,899 |
| 2. Actuarial accrued liability at December 31, 2014 | 375,364 |
| 3. Gain/(loss) on actuarial accrued liability (1.g. - 2.) | 535 |
| 4. Expected actuarial value of assets | |
| a. Actuarial value of assets at December 31, 2013 | 336,955 |
| b. Contributions for 2014 ¹ | 4,710 |
| c. Benefit payments and expenses during 2014 | 0 |
| d. Interest at 7.75% to December 31, 2014 | 26,297 |
| e. Expected actuarial value of assets at December 31, 2014 (a. + b. + c. + d.) | 367,961 |
| 5. Actuarial value of assets at December 31, 2014 | 366,511 |
| 6. Gain/(loss) on actuarial value of assets (5. - 4.e.) | (1,450) |
| 7. Total actuarial gain/(loss) (3. + 6.) | (\$915) |

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

| | |
|---|-------------------|
| 1. UAL at December 31, 2013 | (\$45,868) |
| 2. Expected increase | 3,752 |
| 3. Liability (gain)/loss | (535) |
| 4. Asset (gain)/loss | 1,450 |
| 5. Change due to changes in assumptions, methods, and plan provisions | 50,054 |
| 6. UAL at December 31, 2014 (1. + 2. + 3. + 4. + 5.) | \$8,853 |

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

| | December 31, 2014 | | | December 31, 2013 | | |
|------------------------|-------------------|--|------------------|-------------------|--|------------------|
| | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate |
| Tier 1 Police & Fire | \$0 | \$0 | 0.00% | \$0 | \$0 | 0.00% |
| Tier 1 General Service | 14,506 | 90,502 | 16.03% | 11,744 | 86,946 | 13.51% |
| Tier 2 Police & Fire | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Total | \$14,506 | \$90,502 | 16.03% | \$11,744 | \$86,946 | 13.51% |

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Total Tier 1/Tier 2 UAL | \$8,853 | (\$45,868) |
| 2. Next year's Tier 1/Tier 2 UAL payment | 524 | (3,320) |
| 3. Combined valuation payroll | 90,502 | 86,946 |
| 4. Tier 1/Tier 2 UAL rate (2. ÷ 3.) | 0.58% | (3.82%) |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|---|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 16.03% | 13.51% |
| b. Tier 1/Tier 2 UAL rate | 0.58% | (3.82%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate (a. + b. + c.) | 16.76% | 9.84% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

| | |
|--|---------|
| 1. Current net Tier 1/Tier 2 pension contribution rate | 8.41% |
| 2. Employer contribution rate attributable to side accounts | 0.00% |
| 3. Current employer Tier 1/Tier 2 pension contribution rate (1. – 2.) | 8.41% |
| 4. Size of rate collar | |
| a. 20% of current employer contribution rate (20% x 3.) | 1.68% |
| b. Preliminary size of rate collar (maximum of 3% or a.) | 3.00% |
| c. Funded percentage | 98% |
| d. Size of rate collar (If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.) | 3.00% |
| 5. Advisory July 1, 2017 minimum employer contribution rate (3. – 4.d. but not < 0%) | 5.41% |
| 6. Advisory July 1, 2017 maximum employer contribution rate (3. + 4.d.) | 11.41% |
| 7. Advisory July 1, 2017 total pension rate, before adjustment | 16.76% |
| 8. Net adjustment due to rate collar (5. – 7., but not < 0, or 6. – 7., but not > 0) | (5.35%) |
| 9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar | 0.58% |
| 10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar (8. + 9.) | (4.77%) |
| 11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar | 11.41% |
| 12. Tier 1/Tier 2 retiree healthcare rate | 0.50% |
| 13. Net adjustment due to 6% minimum (6% - 11. - 12., minimum 0%) | 0.00% |
| 14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment | 16.03% |
| 15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment (13. + 14.) | 16.03% |
| 16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment (11. + 13.) | 11.41% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|--|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 16.03% | 13.51% |
| b. Tier 1/Tier 2 UAL rate | (4.77%) | (5.25%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate <i>(a. + b. + c., minimum of 5.50%)</i> | 11.41% | 8.41% |

Data

Demographic Information

Employer Valuation Payroll

| | General Service | Police & Fire | Total |
|-----------------------------------|-----------------|---------------|-----------------|
| Tier 1 | \$90,502 | \$0 | \$90,502 |
| Tier 2 | 0 | 0 | 0 |
| Tier 1/Tier 2 valuation payroll | 90,502 | 0 | 90,502 |
| OPSRP valuation payroll | 0 | 0 | 0 |
| Combined valuation payroll | \$90,502 | \$0 | \$90,502 |

Employer Member Census

| | December 31 | | | | | | | |
|--|-------------|----------|----------|----------|----------|----------|----------|----------|
| | 2014 | | | | 2013 | | | |
| | Tier 1 | Tier 2 | OPSRP | Total | Tier 1 | Tier 2 | OPSRP | Total |
| Active Members ¹ | | | | | | | | |
| General Service | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
| Active Members with previous service segments with the employer | | | | | | | | |
| General Service | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Police & Fire | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Total | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Dormant Members | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Retired Members and Beneficiaries | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total Number of Members | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

| Age | Years of Service | | | | | | | | | Total |
|--------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| <20 | | | | | | | | | | |
| 20-24 | | | | | | | | | | |
| 25-29 | | | | | | | | | | |
| 30-34 | | | | | | | | | | |
| 35-39 | | | | | | | | | | |
| 40-44 | | | | | | | | | | |
| 45-49 | | | | | | | | | | |
| 50-54 | | | | | | | | | | |
| 55-59 | | | | | 1 | | | | | 1 |
| 60-64 | | | | | | | | | | |
| 65-69 | | | | | | | | | | |
| 70-74 | | | | | | | | | | |
| 75+ | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|-------|----------------------------------|-----------------------------------|-------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | | |
| 35-39 | | | 60-64 | | |
| 40-44 | | | 65-69 | | |
| 45-49 | | | 70-74 | | |
| 50-54 | | | 75-79 | | |
| 55-59 | | | 80-84 | | |
| 60-64 | | | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | | | Total | | |

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

| | |
|---|--|
| <i>Actuarial cost method</i> | Entry Age Normal. |
| <i>Amortization Method</i> | <p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.</p> |
| <i>Asset valuation method</i> | Market value of assets, excluding reserves. |
| <i>Contribution rate stabilization method (rate collar)</i> | <p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p> |

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

| | |
|--------------------------------------|--|
| <i>Net investment return</i> | 7.50% compounded annually on system assets. |
| <i>Interest crediting</i> | <p>7.50% compounded annually on members' regular account balances starting in 2015.</p> <p>7.50% compounded annually on members' variable account balances starting in 2015.</p> |
| <i>Consumer price inflation</i> | 2.50% per year. |
| <i>Future general wage inflation</i> | 3.50% per year. |
| <i>Healthcare cost inflation</i> | Ranging from 7.0% in 2015 to 4.4% in 2094. |
| <i>Administrative Expenses</i> | <p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p> |

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

Administrative expenses for the Tier 1/Tier 2 System are assumed to be \$33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

November 2015

Sunrise Water Authority/2845
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.

November 2015
Sunrise Water Authority/2845

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



November 2015
Sunrise Water Authority/2845

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Sunrise Water Authority -- #2845

November 2015

Secondary Employers

| | |
|------|-------------------------|
| 2586 | Mt Scott Water District |
| 2656 | Damascus Water District |

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Executive Summary

Milliman has prepared this report for Sunrise Water Authority to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Sunrise Water Authority.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Sunrise Water Authority

| | Payroll | | |
|---|---------------|-----------------|---------------|
| | Tier 1/Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| Pension | | | |
| Normal cost rate | 10.42% | 8.10% | 12.90% |
| Tier 1/Tier 2 UAL rate ¹ | 7.24% | 7.24% | 7.24% |
| OPSRP UAL rate | 1.01% | 1.01% | 1.01% |
| Side account rate relief | 0.00% | 0.00% | 0.00% |
| Net pension contribution rate | 18.67% | 16.35% | 21.15% |
| Retiree Healthcare | | | |
| Normal cost rate | 0.07% | 0.00% | 0.00% |
| UAL rate | 0.43% | 0.43% | 0.43% |
| Net retiree healthcare rate | 0.50% | 0.43% | 0.43% |
| Total net employer contribution rate | 19.17% | 16.78% | 21.58% |

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 71%.

| Funded Status as of December 31, 2015 | 70% to 130% | Under 60% or Over 140% |
|--|--------------------|-------------------------------|
| 2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate | 14.66% | 14.66% |
| Minimum 2017-2019 Rate | 11.66% | 8.66% |
| Maximum 2017-2019 Rate | 17.66% | 20.66% |

Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b - a) | Funded Ratio (a ÷ b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a) ÷ c) |
|--------------------------|-------------------------------|---------------------------------------|----------------------|----------------------|---------------------|---|
| 12/31/2009 | \$2,864,075 | \$3,700,299 | \$836,224 | 77% | \$948,066 | 88% |
| 12/31/2010 | 3,071,750 | 3,823,574 | 751,824 | 80% | 931,592 | 81% |
| 12/31/2011 | 2,709,139 | 3,974,445 | 1,265,306 | 68% | 1,060,987 | 119% |
| 12/31/2012 | 2,973,563 | 4,013,502 | 1,039,939 | 74% | 1,130,346 | 92% |
| 12/31/2013 | 3,222,903 | 4,026,330 | 803,427 | 80% | 1,068,798 | 75% |
| 12/31/2014 | 3,273,211 | 4,606,451 | 1,333,240 | 71% | 1,191,064 | 112% |

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

| | Payroll | | |
|-------------------------------|-----------------|-----------------|---------------|
| | Tier 1 / Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| July 1, 2013 to June 30, 2015 | 0.59% | 0.49% | 0.49% |
| July 1, 2015 to June 30, 2017 | 0.53% | 0.45% | 0.45% |

Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Sunrise Water Authority

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| T1/T2 UAL | \$1,333,240 | \$803,427 |
| Allocated pooled OPSRP UAL | 136,165 | 75,571 |
| Side account | 0 | 0 |
| Net unfunded pension actuarial accrued liability | 1,469,405 | 878,998 |
| Combined valuation payroll | 1,191,064 | 1,068,798 |
| Net pension UAL as a percentage of payroll | 123% | 82% |
| Calculated side account rate relief | 0.00% | 0.00% |
| Allocated pooled RHIA UAL | \$9,467 | \$14,793 |

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| Normal cost | \$25,750 | \$21,045 |
| Tier 1/Tier 2 valuation payroll | 247,166 | 232,133 |
| Tier 1/Tier 2 pension normal cost rate | 10.42% | 9.07% |
| Tier 1/ Tier 2 Actuarial accrued liability | \$4,606,451 | \$4,026,330 |
| Actuarial asset value | 3,273,211 | 3,222,903 |
| Tier 1/Tier 2 Unfunded actuarial accrued liability | 1,333,240 | 803,427 |
| Tier 1/ Tier 2 Funded status | 71% | 80% |
| Combined valuation payroll | \$1,191,064 | \$1,068,798 |
| Tier 1/Tier 2 UAL as a percentage of payroll | 112% | 75% |
| Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10) | 7.24% | 5.59% |
| Tier 1/Tier 2 active members ¹ | 3 | 3 |
| Tier 1/Tier 2 dormant members | 6 | 8 |
| Tier 1/Tier 2 retirees and beneficiaries | 16 | 16 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Executive Summary

Principal Valuation Results (continued)

OPSRP

| (\$ in millions) | Actuarial Valuation as of | |
|---|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| General service normal cost | \$301.3 | \$234.7 |
| OPSRP general service valuation payroll | 3,720.4 | 3,200.0 |
| General service normal cost rate | 8.10% | 7.33% |
| Police and fire normal cost | \$59.6 | \$45.5 |
| OPSRP police and fire valuation payroll | 462.3 | 398.1 |
| Police and fire normal cost rate | 12.90% | 11.44% |
| Actuarial accrued liability | \$3,064.1 | \$2,243.3 |
| Actuarial asset value | 2,024.6 | 1,630.2 |
| Unfunded actuarial accrued liability | 1,039.5 | 613.2 |
| Funded status | 66% | 73% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 11% | 7% |
| UAL rate | 1.01% | 0.61% |

Retiree Healthcare

| (\$ in millions) | Actuarial Valuation as of | |
|--------------------------------------|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| RHIA | | |
| Normal cost | \$3.5 | \$4.0 |
| Tier 1 / Tier 2 valuation payroll | 4,933.1 | 5,073.7 |
| Normal cost rate | 0.07% | 0.08% |
| Actuarial accrued liability | \$468.4 | \$473.6 |
| Actuarial asset value | 395.9 | 353.5 |
| Unfunded actuarial accrued liability | 72.5 | 120.0 |
| Funded status | 85% | 75% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 1% | 1% |
| UAL rate | 0.43% | 0.45% |

Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

| | New | Continuing | Total |
|---|------------|------------|-------|
| 1. Side account as of December 31, 2013 | N/A | | |
| 2. Deposits made during 2014 | | N/A | |
| 3. Administrative expenses | | | |
| 4. Amount transferred to employer reserves during 2014 | | | |
| 5. Side account earnings during 2014 | | | |
| 6. Side account as of December 31, 2014 (1. + 2. + 3. + 4. + 5.) | | | |

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Total side account | \$0 | \$0 |
| 2. Combined valuation payroll | 1,191,064 | 1,068,798 |
| 3. Amortization factor | 10.118 | 10.703 |
| 4. Total side account rate (-1. ÷ 2. ÷ 3.)¹ | 0.00% | 0.00% |

¹ For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.

Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

| | December 31, 2014 | December 31, 2013 |
|---|--------------------|--------------------|
| 1. Member reserves | \$355,827 | \$340,973 |
| 2. Employer reserves | 1,146,013 | 991,681 |
| 3. Benefits in force reserve | 1,771,372 | 1,890,249 |
| 4. Total market value of assets (1. + 2. + 3.) | \$3,273,211 | \$3,222,903 |

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

| | December 31, 2013 to December 31, 2014 |
|---|---|
| 1. Market value of assets at beginning of year | \$3,222,903 |
| 2. Regular employer contributions | 77,879 |
| 3. Benefit payments and expense | (292,555) |
| 4. Adjustments ¹ | 42,729 |
| 5. Interest credited | 222,255 |
| 6. Total transferred from side accounts | 0 |
| 7. Market value of assets at end of year (1. + 2. + 3. + 4. + 5. + 6.) | \$3,273,211 |

¹ Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|------------------------|-------------------|-------------------|
| Tier 1 Police & Fire | \$0 | \$0 |
| Tier 1 General Service | 0 | 0 |
| Tier 2 Police & Fire | 0 | 0 |
| Tier 2 General Service | 25,750 | 21,045 |
| Total | \$25,750 | \$21,045 |

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-------------|----------------|---------------|------------|
| Normal Cost | \$22,221 | \$25,750 | \$3,529 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|--|--------------------|--------------------|
| Active Members | | |
| ▪ Tier 1 Police & Fire | \$0 | \$0 |
| ▪ Tier 1 General Service | 141,912 | 122,549 |
| ▪ Tier 2 Police & Fire | 0 | 0 |
| ▪ Tier 2 General Service | 621,495 | 487,009 |
| ▪ Total Active Members | \$763,407 | \$609,558 |
| Dormant Members | 406,628 | 369,756 |
| Retired Members and Beneficiaries | 3,436,416 | 3,047,016 |
| Total Actuarial Accrued Liability | \$4,606,451 | \$4,026,330 |

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-----------------------------|-------------------|------------------|---------------|
| Actuarial Accrued Liability | \$4,098,515 | \$4,606,451 | \$507,936 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Actuarial accrued liability | \$4,606,451 | \$4,026,330 |
| 2. Actuarial value of assets | 3,273,211 | 3,222,903 |
| 3. Unfunded accrued liability (1. – 2.) | 1,333,240 | 803,427 |
| 4. Funded percentage (2. ÷ 1.) | 71% | 80% |
| 5. Combined valuation payroll | \$1,191,064 | \$1,068,798 |
| 6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.) | 112% | 75% |

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

| Amortization Base | UAL December 31, 2013 | Payment | Interest | UAL December 31, 2014 | Next Year's Payment |
|-------------------|--------------------------|----------|----------|--------------------------|------------------------|
| December 31, 2013 | \$803,427 | \$58,152 | \$59,866 | \$805,141 | \$60,310 |
| December 31, 2014 | N/A | N/A | N/A | \$528,099 | \$38,213 |
| Total | | | | \$1,333,240 | \$98,523 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

| | |
|--|-------------------|
| 1. Expected actuarial accrued liability | |
| a. Actuarial accrued liability at December 31, 2013 | \$4,026,330 |
| b. Normal cost at December 31, 2013 | 21,045 |
| c. Benefit payments during 2014 | (290,302) |
| d. Interest at 7.75% to December 31, 2014 | 301,607 |
| e. Expected actuarial accrued liability before changes (a. + b. + c. + d.) | 4,058,680 |
| f. Change in actuarial accrued liability due to assumption, method, and plan changes | 507,936 |
| g. Expected actuarial accrued liability at December 31, 2014 (e. + f.) | 4,566,616 |
| 2. Actuarial accrued liability at December 31, 2014 | 4,606,451 |
| 3. Gain/(loss) on actuarial accrued liability (1.g. - 2.) | (39,835) |
| 4. Expected actuarial value of assets | |
| a. Actuarial value of assets at December 31, 2013 | 3,222,903 |
| b. Contributions for 2014 ¹ | 77,879 |
| c. Benefit payments and expenses during 2014 | (292,555) |
| d. Interest at 7.75% to December 31, 2014 | 241,456 |
| e. Expected actuarial value of assets at December 31, 2014 (a. + b. + c. + d.) | 3,249,684 |
| 5. Actuarial value of assets at December 31, 2014 | 3,273,211 |
| 6. Gain/(loss) on actuarial value of assets (5. - 4.e.) | 23,528 |
| 7. Total actuarial gain/(loss) (3. + 6.) | (\$16,307) |

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

| | |
|---|--------------------|
| 1. UAL at December 31, 2013 | \$803,427 |
| 2. Expected increase | 5,570 |
| 3. Liability (gain)/loss | 39,835 |
| 4. Asset (gain)/loss | (23,528) |
| 5. Change due to changes in assumptions, methods, and plan provisions | 507,936 |
| 6. UAL at December 31, 2014 (1. + 2. + 3. + 4. + 5.) | \$1,333,240 |

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

| | December 31, 2014 | | | December 31, 2013 | | |
|------------------------|-------------------|--|------------------|-------------------|--|------------------|
| | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate |
| Tier 1 Police & Fire | \$0 | \$0 | 0.00% | \$0 | \$0 | 0.00% |
| Tier 1 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 Police & Fire | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 General Service | 25,750 | 247,166 | 10.42% | 21,045 | 232,133 | 9.07% |
| Total | \$25,750 | \$247,166 | 10.42% | \$21,045 | \$232,133 | 9.07% |

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Total Tier 1/Tier 2 UAL | \$1,333,240 | \$803,427 |
| 2. Next year's Tier 1/Tier 2 UAL payment | 98,523 | 58,152 |
| 3. Combined valuation payroll | 1,191,064 | 1,068,798 |
| 4. Tier 1/Tier 2 UAL rate (2. ÷ 3.) | 8.27% | 5.44% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|---|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 10.42% | 9.07% |
| b. Tier 1/Tier 2 UAL rate | 8.27% | 5.44% |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate (a. + b. + c.) | 18.84% | 14.66% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

| | |
|--|---------|
| 1. Current net Tier 1/Tier 2 pension contribution rate | 14.66% |
| 2. Employer contribution rate attributable to side accounts | 0.00% |
| 3. Current employer Tier 1/Tier 2 pension contribution rate (1. – 2.) | 14.66% |
| 4. Size of rate collar | |
| a. 20% of current employer contribution rate (20% x 3.) | 2.93% |
| b. Preliminary size of rate collar (maximum of 3% or a.) | 3.00% |
| c. Funded percentage | 71% |
| d. Size of rate collar (If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.) | 3.00% |
| 5. Advisory July 1, 2017 minimum employer contribution rate (3. – 4.d. but not < 0%) | 11.66% |
| 6. Advisory July 1, 2017 maximum employer contribution rate (3. + 4.d.) | 17.66% |
| 7. Advisory July 1, 2017 total pension rate, before adjustment | 18.84% |
| 8. Net adjustment due to rate collar (5. – 7., but not < 0, or 6. – 7., but not > 0) | (1.18%) |
| 9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar | 8.27% |
| 10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar (8. + 9.) | 7.09% |
| 11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar | 17.66% |
| 12. Tier 1/Tier 2 retiree healthcare rate | 0.50% |
| 13. Net adjustment due to 6% minimum (6% - 11. - 12., minimum 0%) | 0.00% |
| 14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment | 10.42% |
| 15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment (13. + 14.) | 10.42% |
| 16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment (11. + 13.) | 17.66% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|--|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 10.42% | 9.07% |
| b. Tier 1/Tier 2 UAL rate | 7.09% | 5.44% |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate <i>(a. + b. + c., minimum of 5.50%)</i> | 17.66% | 14.66% |

Data

Demographic Information

Employer Valuation Payroll

| | General Service | Police & Fire | Total |
|-----------------------------------|--------------------|---------------|--------------------|
| Tier 1 | \$0 | \$0 | \$0 |
| Tier 2 | 247,166 | 0 | 247,166 |
| Tier 1/Tier 2 valuation payroll | 247,166 | 0 | 247,166 |
| OPSRP valuation payroll | 943,898 | 0 | 943,898 |
| Combined valuation payroll | \$1,191,064 | \$0 | \$1,191,064 |

Employer Member Census

| | December 31 | | | | | | | |
|--|-------------|----------|-----------|-----------|-----------|----------|-----------|-----------|
| | 2014 | | | | 2013 | | | |
| | Tier 1 | Tier 2 | OPSRP | Total | Tier 1 | Tier 2 | OPSRP | Total |
| Active Members ¹ | | | | | | | | |
| General Service | 0 | 3 | 14 | 17 | 0 | 3 | 13 | 16 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 3 | 14 | 17 | 0 | 3 | 13 | 16 |
| Active Members with previous service segments with the employer | | | | | | | | |
| General Service | 2 | 1 | N/A | 3 | 2 | 1 | N/A | 3 |
| Police & Fire | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Total | 2 | 1 | N/A | 3 | 2 | 1 | N/A | 3 |
| Dormant Members | | | | | | | | |
| General Service | 4 | 2 | 2 | 8 | 5 | 3 | 1 | 9 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 4 | 2 | 2 | 8 | 5 | 3 | 1 | 9 |
| Retired Members and Beneficiaries | | | | | | | | |
| General Service | 15 | 1 | 0 | 16 | 15 | 1 | 0 | 16 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 15 | 1 | 0 | 16 | 15 | 1 | 0 | 16 |
| Grand Total Number of Members | 21 | 7 | 16 | 44 | 22 | 8 | 14 | 44 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

| Age | Years of Service | | | | | | | | | Total |
|--------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| <20 | | | | | | | | | | |
| 20-24 | | | | | | | | | | |
| 25-29 | | | | | | | | | | |
| 30-34 | | | | | | | | | | |
| 35-39 | | | 1 | | | | | | | 1 |
| 40-44 | | | | 1 | | | | | | 1 |
| 45-49 | | | 1 | | | | | | | 1 |
| 50-54 | | | | | | | | | | |
| 55-59 | | | | | | | | | | |
| 60-64 | | | | | | | | | | |
| 65-69 | | | | | | | | | | |
| 70-74 | | | | | | | | | | |
| 75+ | | | | | | | | | | |
| Total | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|----------|----------------------------------|-----------------------------------|-----------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | | |
| 35-39 | | | 60-64 | 2 | 2,524 |
| 40-44 | | | 65-69 | 3 | 1,726 |
| 45-49 | 3 | 1,140 | 70-74 | 4 | 1,777 |
| 50-54 | 2 | 757 | 75-79 | 3 | 1,123 |
| 55-59 | | | 80-84 | 2 | 1,231 |
| 60-64 | 1 | 53 | 85-89 | 1 | 593 |
| 65-69 | | | 90-94 | 1 | 676 |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | 6 | 831 | Total | 16 | 1,527 |

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

| | |
|---|--|
| <i>Actuarial cost method</i> | Entry Age Normal. |
| <i>Amortization Method</i> | <p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.</p> |
| <i>Asset valuation method</i> | Market value of assets, excluding reserves. |
| <i>Contribution rate stabilization method (rate collar)</i> | <p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p> |

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

| | |
|--------------------------------------|--|
| <i>Net investment return</i> | 7.50% compounded annually on system assets. |
| <i>Interest crediting</i> | <p>7.50% compounded annually on members' regular account balances starting in 2015.</p> <p>7.50% compounded annually on members' variable account balances starting in 2015.</p> |
| <i>Consumer price inflation</i> | 2.50% per year. |
| <i>Future general wage inflation</i> | 3.50% per year. |
| <i>Healthcare cost inflation</i> | Ranging from 7.0% in 2015 to 4.4% in 2094. |
| <i>Administrative Expenses</i> | <p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p> |

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

Administrative expenses for the Tier 1/Tier 2 System are assumed to be \$33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called "funding method," a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

November 2015

Sweet Home Cemetery/2643
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.



November 2015
Sweet Home Cemetery/2643

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



November 2015
Sweet Home Cemetery/2643

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Sweet Home Cemetery -- #2643

November 2015

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Executive Summary

Milliman has prepared this report for Sweet Home Cemetery to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Sweet Home Cemetery.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Sweet Home Cemetery

| | Payroll | | |
|---|---------------|-----------------|---------------|
| | Tier 1/Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| Pension | | | |
| Normal cost rate | 16.43% | 8.10% | 12.90% |
| Tier 1/Tier 2 UAL rate ¹ | 3.26% | 3.26% | 3.26% |
| OPSRP UAL rate | 1.01% | 1.01% | 1.01% |
| Side account rate relief | 0.00% | 0.00% | 0.00% |
| Net pension contribution rate | 20.70% | 12.37% | 17.17% |
| Retiree Healthcare | | | |
| Normal cost rate | 0.07% | 0.00% | 0.00% |
| UAL rate | 0.43% | 0.43% | 0.43% |
| Net retiree healthcare rate | 0.50% | 0.43% | 0.43% |
| Total net employer contribution rate | 21.20% | 12.80% | 17.60% |

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 90%.

| Funded Status as of December 31, 2015 | 70% to 130% | Under 60% or Over 140% |
|--|--------------------|-------------------------------|
| 2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate | 17.09% | 17.09% |
| Minimum 2017-2019 Rate | 13.67% | 10.25% |
| Maximum 2017-2019 Rate | 20.51% | 23.93% |

Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b - a) | Funded Ratio (a ÷ b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a) ÷ c) |
|--------------------------|-------------------------------|---------------------------------------|----------------------|----------------------|---------------------|---|
| 12/31/2009 | \$542,212 | \$681,951 | \$139,739 | 80% | \$108,913 | 128% |
| 12/31/2010 | 612,989 | 739,059 | 126,070 | 83% | 111,990 | 113% |
| 12/31/2011 | 350,642 | 511,257 | 160,615 | 69% | 27,288 | 589% |
| 12/31/2012 | 388,006 | 464,278 | 76,272 | 84% | 84,731 | 90% |
| 12/31/2013 | 441,442 | 485,592 | 44,150 | 91% | 107,083 | 41% |
| 12/31/2014 | 415,137 | 462,736 | 47,599 | 90% | 114,408 | 42% |

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

| | Payroll | | |
|-------------------------------|-----------------|-----------------|---------------|
| | Tier 1 / Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| July 1, 2013 to June 30, 2015 | 0.59% | 0.49% | 0.49% |
| July 1, 2015 to June 30, 2017 | 0.53% | 0.45% | 0.45% |

Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Sweet Home Cemetery

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| T1/T2 UAL | \$47,599 | \$44,150 |
| Allocated pooled OPSRP UAL | 13,079 | 7,571 |
| Side account | 0 | 0 |
| Net unfunded pension actuarial accrued liability | 60,678 | 51,721 |
| Combined valuation payroll | 114,408 | 107,083 |
| Net pension UAL as a percentage of payroll | 53% | 48% |
| Calculated side account rate relief | 0.00% | 0.00% |
| Allocated pooled RHIA UAL | \$909 | \$1,482 |

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| Normal cost | \$6,376 | \$5,283 |
| Tier 1/Tier 2 valuation payroll | 38,802 | 37,849 |
| Tier 1/Tier 2 pension normal cost rate | 16.43% | 13.96% |
| Tier 1/ Tier 2 Actuarial accrued liability | \$462,736 | \$485,592 |
| Actuarial asset value | 415,137 | 441,442 |
| Tier 1/Tier 2 Unfunded actuarial accrued liability | 47,599 | 44,150 |
| Tier 1/ Tier 2 Funded status | 90% | 91% |
| Combined valuation payroll | \$114,408 | \$107,083 |
| Tier 1/Tier 2 UAL as a percentage of payroll | 42% | 41% |
| Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10) | 3.26% | 3.13% |
| Tier 1/Tier 2 active members ¹ | 1 | 1 |
| Tier 1/Tier 2 dormant members | 0 | 1 |
| Tier 1/Tier 2 retirees and beneficiaries | 1 | 2 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Executive Summary

Principal Valuation Results (continued)

OPSRP

| (\$ in millions) | Actuarial Valuation as of | |
|---|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| General service normal cost | \$301.3 | \$234.7 |
| OPSRP general service valuation payroll | 3,720.4 | 3,200.0 |
| General service normal cost rate | 8.10% | 7.33% |
| Police and fire normal cost | \$59.6 | \$45.5 |
| OPSRP police and fire valuation payroll | 462.3 | 398.1 |
| Police and fire normal cost rate | 12.90% | 11.44% |
| Actuarial accrued liability | \$3,064.1 | \$2,243.3 |
| Actuarial asset value | 2,024.6 | 1,630.2 |
| Unfunded actuarial accrued liability | 1,039.5 | 613.2 |
| Funded status | 66% | 73% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 11% | 7% |
| UAL rate | 1.01% | 0.61% |

Retiree Healthcare

| (\$ in millions) | Actuarial Valuation as of | |
|--------------------------------------|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| RHIA | | |
| Normal cost | \$3.5 | \$4.0 |
| Tier 1 / Tier 2 valuation payroll | 4,933.1 | 5,073.7 |
| Normal cost rate | 0.07% | 0.08% |
| Actuarial accrued liability | \$468.4 | \$473.6 |
| Actuarial asset value | 395.9 | 353.5 |
| Unfunded actuarial accrued liability | 72.5 | 120.0 |
| Funded status | 85% | 75% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 1% | 1% |
| UAL rate | 0.43% | 0.45% |

Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

| | New | Continuing | Total |
|---|------------|------------|-------|
| 1. Side account as of December 31, 2013 | N/A | | |
| 2. Deposits made during 2014 | | N/A | |
| 3. Administrative expenses | | | |
| 4. Amount transferred to employer reserves during 2014 | | | |
| 5. Side account earnings during 2014 | | | |
| 6. Side account as of December 31, 2014 (1. + 2. + 3. + 4. + 5.) | | | |

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Total side account | \$0 | \$0 |
| 2. Combined valuation payroll | 114,408 | 107,083 |
| 3. Amortization factor | 10.118 | 10.703 |
| 4. Total side account rate (-1. ÷ 2. ÷ 3.)¹ | 0.00% | 0.00% |

¹ For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.

Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Member reserves | \$68,805 | \$80,193 |
| 2. Employer reserves | 187,187 | 172,428 |
| 3. Benefits in force reserve | 159,145 | 188,821 |
| 4. Total market value of assets (1. + 2. + 3.) | \$415,137 | \$441,442 |

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

| | December 31, 2013 to December 31, 2014 |
|---|---|
| 1. Market value of assets at beginning of year | \$441,442 |
| 2. Regular employer contributions | 17,435 |
| 3. Benefit payments and expense | (26,284) |
| 4. Adjustments ¹ | (46,450) |
| 5. Interest credited | 28,994 |
| 6. Total transferred from side accounts | 0 |
| 7. Market value of assets at end of year (1. + 2. + 3. + 4. + 5. + 6.) | \$415,137 |

¹ Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|------------------------|-------------------|-------------------|
| Tier 1 Police & Fire | \$0 | \$0 |
| Tier 1 General Service | 6,376 | 5,283 |
| Tier 2 Police & Fire | 0 | 0 |
| Tier 2 General Service | 0 | 0 |
| Total | \$6,376 | \$5,283 |

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-------------|-------------------|------------------|---------------|
| Normal Cost | \$5,465 | \$6,376 | \$911 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| Active Members | | |
| ▪ Tier 1 Police & Fire | \$0 | \$0 |
| ▪ Tier 1 General Service | 153,999 | 123,027 |
| ▪ Tier 2 Police & Fire | 0 | 0 |
| ▪ Tier 2 General Service | 0 | 0 |
| ▪ Total Active Members | \$153,999 | \$123,027 |
| Dormant Members | 0 | 58,192 |
| Retired Members and Beneficiaries | 308,737 | 304,373 |
| Total Actuarial Accrued Liability | \$462,736 | \$485,592 |

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-----------------------------|-------------------|------------------|---------------|
| Actuarial Accrued Liability | \$405,115 | \$462,736 | \$57,621 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Actuarial accrued liability | \$462,736 | \$485,592 |
| 2. Actuarial value of assets | 415,137 | 441,442 |
| 3. Unfunded accrued liability (1. – 2.) | 47,599 | 44,150 |
| 4. Funded percentage (2. ÷ 1.) | 90% | 91% |
| 5. Combined valuation payroll | \$114,408 | \$107,083 |
| 6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.) | 42% | 41% |

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

| Amortization Base | UAL December 31, 2013 | Payment | Interest | UAL December 31, 2014 | Next Year's Payment |
|-------------------|--------------------------|---------|----------|--------------------------|------------------------|
| December 31, 2013 | \$44,150 | \$3,196 | \$3,290 | \$44,244 | \$3,314 |
| December 31, 2014 | N/A | N/A | N/A | \$3,355 | \$243 |
| Total | | | | \$47,599 | \$3,557 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

| | |
|--|-----------------|
| 1. Expected actuarial accrued liability | |
| a. Actuarial accrued liability at December 31, 2013 | \$485,592 |
| b. Normal cost at December 31, 2013 | 5,283 |
| c. Benefit payments during 2014 | (26,082) |
| d. Interest at 7.75% to December 31, 2014 | 36,827 |
| e. Expected actuarial accrued liability before changes (a. + b. + c. + d.) | 501,620 |
| f. Change in actuarial accrued liability due to assumption, method, and plan changes | 57,621 |
| g. Expected actuarial accrued liability at December 31, 2014 (e. + f.) | 559,241 |
| 2. Actuarial accrued liability at December 31, 2014 | 462,736 |
| 3. Gain/(loss) on actuarial accrued liability (1.g. - 2.) | 96,505 |
| 4. Expected actuarial value of assets | |
| a. Actuarial value of assets at December 31, 2013 | 441,442 |
| b. Contributions for 2014 ¹ | 17,435 |
| c. Benefit payments and expenses during 2014 | (26,284) |
| d. Interest at 7.75% to December 31, 2014 | 33,869 |
| e. Expected actuarial value of assets at December 31, 2014 (a. + b. + c. + d.) | 466,462 |
| 5. Actuarial value of assets at December 31, 2014 | 415,137 |
| 6. Gain/(loss) on actuarial value of assets (5. - 4.e.) | (51,325) |
| 7. Total actuarial gain/(loss) (3. + 6.) | \$45,180 |

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

| | |
|---|-----------------|
| 1. UAL at December 31, 2013 | \$44,150 |
| 2. Expected increase | (8,992) |
| 3. Liability (gain)/loss | (96,505) |
| 4. Asset (gain)/loss | 51,325 |
| 5. Change due to changes in assumptions, methods, and plan provisions | 57,621 |
| 6. UAL at December 31, 2014 (1. + 2. + 3. + 4. + 5.) | \$47,599 |

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

| | December 31, 2014 | | | December 31, 2013 | | |
|------------------------|-------------------|--|------------------|-------------------|--|------------------|
| | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate |
| Tier 1 Police & Fire | \$0 | \$0 | 0.00% | \$0 | \$0 | 0.00% |
| Tier 1 General Service | 6,376 | 38,802 | 16.43% | 5,283 | 37,849 | 13.96% |
| Tier 2 Police & Fire | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Total | \$6,376 | \$38,802 | 16.43% | \$5,283 | \$37,849 | 13.96% |

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Total Tier 1/Tier 2 UAL | \$47,599 | \$44,150 |
| 2. Next year's Tier 1/Tier 2 UAL payment | 3,557 | 3,196 |
| 3. Combined valuation payroll | 114,408 | 107,083 |
| 4. Tier 1/Tier 2 UAL rate (2. ÷ 3.) | 3.11% | 2.98% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|---|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 16.43% | 13.96% |
| b. Tier 1/Tier 2 UAL rate | 3.11% | 2.98% |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate (a. + b. + c.) | 19.69% | 17.09% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

| | |
|--|--------|
| 1. Current net Tier 1/Tier 2 pension contribution rate | 17.09% |
| 2. Employer contribution rate attributable to side accounts | 0.00% |
| 3. Current employer Tier 1/Tier 2 pension contribution rate (1. – 2.) | 17.09% |
| 4. Size of rate collar | |
| a. 20% of current employer contribution rate (20% x 3.) | 3.42% |
| b. Preliminary size of rate collar (maximum of 3% or a.) | 3.42% |
| c. Funded percentage | 90% |
| d. Size of rate collar (If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.) | 3.42% |
| 5. Advisory July 1, 2017 minimum employer contribution rate (3. – 4.d. but not < 0%) | 13.67% |
| 6. Advisory July 1, 2017 maximum employer contribution rate (3. + 4.d.) | 20.51% |
| 7. Advisory July 1, 2017 total pension rate, before adjustment | 19.69% |
| 8. Net adjustment due to rate collar (5. – 7., but not < 0, or 6. – 7., but not > 0) | 0.00% |
| 9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar | 3.11% |
| 10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar (8. + 9.) | 3.11% |
| 11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar | 19.69% |
| 12. Tier 1/Tier 2 retiree healthcare rate | 0.50% |
| 13. Net adjustment due to 6% minimum (6% - 11. - 12., minimum 0%) | 0.00% |
| 14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment | 16.43% |
| 15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment (13. + 14.) | 16.43% |
| 16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment (11. + 13.) | 19.69% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|--|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 16.43% | 13.96% |
| b. Tier 1/Tier 2 UAL rate | 3.11% | 2.98% |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate <i>(a. + b. + c., minimum of 5.50%)</i> | 19.69% | 17.09% |

Data

Demographic Information

Employer Valuation Payroll

| | General Service | Police & Fire | Total |
|-----------------------------------|------------------|---------------|------------------|
| Tier 1 | \$38,802 | \$0 | \$38,802 |
| Tier 2 | 0 | 0 | 0 |
| Tier 1/Tier 2 valuation payroll | 38,802 | 0 | 38,802 |
| OPSRP valuation payroll | 75,606 | 0 | 75,606 |
| Combined valuation payroll | \$114,408 | \$0 | \$114,408 |

Employer Member Census

| | December 31 | | | | | | | |
|--|-------------|----------|----------|----------|----------|----------|----------|----------|
| | 2014 | | | | 2013 | | | |
| | Tier 1 | Tier 2 | OPSRP | Total | Tier 1 | Tier 2 | OPSRP | Total |
| Active Members ¹ | | | | | | | | |
| General Service | 1 | 0 | 2 | 3 | 1 | 0 | 2 | 3 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 1 | 0 | 2 | 3 | 1 | 0 | 2 | 3 |
| Active Members with previous service segments with the employer | | | | | | | | |
| General Service | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Police & Fire | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Total | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Dormant Members | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Retired Members and Beneficiaries | | | | | | | | |
| General Service | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 2 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 2 |
| Grand Total Number of Members | 2 | 0 | 2 | 4 | 3 | 1 | 2 | 6 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

| Age | Years of Service | | | | | | | | | Total |
|--------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| <20 | | | | | | | | | | |
| 20-24 | | | | | | | | | | |
| 25-29 | | | | | | | | | | |
| 30-34 | | | | | | | | | | |
| 35-39 | | | | | | | | | | |
| 40-44 | | | | | | | | | | |
| 45-49 | | | | | | | | | | |
| 50-54 | | | | | | | | | | |
| 55-59 | | | | | 1 | | | | | 1 |
| 60-64 | | | | | | | | | | |
| 65-69 | | | | | | | | | | |
| 70-74 | | | | | | | | | | |
| 75+ | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|-------|----------------------------------|-----------------------------------|----------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | | |
| 35-39 | | | 60-64 | 1 | 1,715 |
| 40-44 | | | 65-69 | | |
| 45-49 | | | 70-74 | | |
| 50-54 | | | 75-79 | | |
| 55-59 | | | 80-84 | | |
| 60-64 | | | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | | | Total | 1 | 1,715 |

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

| | |
|---|--|
| <i>Actuarial cost method</i> | Entry Age Normal. |
| <i>Amortization Method</i> | <p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.</p> |
| <i>Asset valuation method</i> | Market value of assets, excluding reserves. |
| <i>Contribution rate stabilization method (rate collar)</i> | <p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p> |

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

| | |
|--------------------------------------|--|
| <i>Net investment return</i> | 7.50% compounded annually on system assets. |
| <i>Interest crediting</i> | <p>7.50% compounded annually on members' regular account balances starting in 2015.</p> <p>7.50% compounded annually on members' variable account balances starting in 2015.</p> |
| <i>Consumer price inflation</i> | 2.50% per year. |
| <i>Future general wage inflation</i> | 3.50% per year. |
| <i>Healthcare cost inflation</i> | Ranging from 7.0% in 2015 to 4.4% in 2094. |
| <i>Administrative Expenses</i> | <p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p> |

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

Administrative expenses for the Tier 1/Tier 2 System are assumed to be \$33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

November 2015

Tillamook 9-1-1/2722

Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.



November 2015
Tillamook 9-1-1/2722

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



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This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Tillamook 9-1-1 -- #2722

November 2015

This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

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Executive Summary

Milliman has prepared this report for Tillamook 9-1-1 to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Tillamook 9-1-1.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Tillamook 9-1-1

| | Payroll | | |
|---|---------------|-----------------|---------------|
| | Tier 1/Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| Pension | | | |
| Normal cost rate | 13.45% | 8.10% | 12.90% |
| Tier 1/Tier 2 UAL rate ¹ | (4.98%) | (4.98%) | (4.98%) |
| OPSRP UAL rate | 1.01% | 1.01% | 1.01% |
| Side account rate relief | 0.00% | 0.00% | 0.00% |
| Net pension contribution rate | 9.48% | 4.13% | 8.93% |
| Retiree Healthcare | | | |
| Normal cost rate | 0.07% | 0.00% | 0.00% |
| UAL rate | 0.43% | 0.43% | 0.43% |
| Net retiree healthcare rate | 0.50% | 0.43% | 0.43% |
| Total net employer contribution rate | 9.98% | 4.56% | 9.36% |

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 110%.

| Funded Status as of December 31, 2015 | 70% to 130% | Under 60% or Over 140% |
|--|--------------------|-------------------------------|
| 2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate | 5.47% | 5.47% |
| Minimum 2017-2019 Rate | 2.47% | 0.00% |
| Maximum 2017-2019 Rate | 8.47% | 11.47% |

Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b - a) | Funded Ratio (a ÷ b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a) ÷ c) |
|--------------------------|-------------------------------|---------------------------------------|----------------------|----------------------|---------------------|---|
| 12/31/2009 | \$1,613,075 | \$1,537,544 | (\$75,531) | 105% | \$522,840 | (14%) |
| 12/31/2010 | 1,755,810 | 1,582,886 | (172,924) | 111% | 488,423 | (35%) |
| 12/31/2011 | 1,800,706 | 1,660,388 | (140,318) | 108% | 561,258 | (25%) |
| 12/31/2012 | 2,056,968 | 1,641,966 | (415,002) | 125% | 525,267 | (79%) |
| 12/31/2013 | 2,338,997 | 1,713,100 | (625,897) | 137% | 530,964 | (118%) |
| 12/31/2014 | 2,358,457 | 2,145,269 | (213,188) | 110% | 567,404 | (38%) |

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

| | Payroll | | |
|-------------------------------|-----------------|-----------------|---------------|
| | Tier 1 / Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| July 1, 2013 to June 30, 2015 | 0.59% | 0.49% | 0.49% |
| July 1, 2015 to June 30, 2017 | 0.53% | 0.45% | 0.45% |

Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Tillamook 9-1-1

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| T1/T2 UAL | (\$213,188) | (\$625,897) |
| Allocated pooled OPSRP UAL | 64,867 | 37,542 |
| Side account | 0 | 0 |
| Net unfunded pension actuarial accrued liability | (148,321) | (588,355) |
| Combined valuation payroll | 567,404 | 530,964 |
| Net pension UAL as a percentage of payroll | (26%) | (111%) |
| Calculated side account rate relief | 0.00% | 0.00% |
| Allocated pooled RHIA UAL | \$4,510 | \$7,349 |

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| Normal cost | \$34,755 | \$27,902 |
| Tier 1/Tier 2 valuation payroll | 258,456 | 236,239 |
| Tier 1/Tier 2 pension normal cost rate | 13.45% | 13.85% |
| Tier 1/ Tier 2 Actuarial accrued liability | \$2,145,269 | \$1,713,100 |
| Actuarial asset value | 2,358,457 | 2,338,997 |
| Tier 1/Tier 2 Unfunded actuarial accrued liability | (213,188) | (625,897) |
| Tier 1/ Tier 2 Funded status | 110% | 137% |
| Combined valuation payroll | \$567,404 | \$530,964 |
| Tier 1/Tier 2 UAL as a percentage of payroll | (38%) | (118%) |
| Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10) | (4.98%) | (8.38%) |
| Tier 1/Tier 2 active members ¹ | 4 | 4 |
| Tier 1/Tier 2 dormant members | 5 | 5 |
| Tier 1/Tier 2 retirees and beneficiaries | 4 | 3 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Executive Summary

Principal Valuation Results (continued)

OPSRP

| (\$ in millions) | Actuarial Valuation as of | |
|---|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| General service normal cost | \$301.3 | \$234.7 |
| OPSRP general service valuation payroll | 3,720.4 | 3,200.0 |
| General service normal cost rate | 8.10% | 7.33% |
| Police and fire normal cost | \$59.6 | \$45.5 |
| OPSRP police and fire valuation payroll | 462.3 | 398.1 |
| Police and fire normal cost rate | 12.90% | 11.44% |
| Actuarial accrued liability | \$3,064.1 | \$2,243.3 |
| Actuarial asset value | 2,024.6 | 1,630.2 |
| Unfunded actuarial accrued liability | 1,039.5 | 613.2 |
| Funded status | 66% | 73% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 11% | 7% |
| UAL rate | 1.01% | 0.61% |

Retiree Healthcare

| (\$ in millions) | Actuarial Valuation as of | |
|--------------------------------------|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| RHIA | | |
| Normal cost | \$3.5 | \$4.0 |
| Tier 1 / Tier 2 valuation payroll | 4,933.1 | 5,073.7 |
| Normal cost rate | 0.07% | 0.08% |
| Actuarial accrued liability | \$468.4 | \$473.6 |
| Actuarial asset value | 395.9 | 353.5 |
| Unfunded actuarial accrued liability | 72.5 | 120.0 |
| Funded status | 85% | 75% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 1% | 1% |
| UAL rate | 0.43% | 0.45% |

Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

| | New | Continuing | Total |
|---|------------|------------|-------|
| 1. Side account as of December 31, 2013 | N/A | | |
| 2. Deposits made during 2014 | | N/A | |
| 3. Administrative expenses | | | |
| 4. Amount transferred to employer reserves during 2014 | | | |
| 5. Side account earnings during 2014 | | | |
| 6. Side account as of December 31, 2014 (1. + 2. + 3. + 4. + 5.) | | | |

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Total side account | \$0 | \$0 |
| 2. Combined valuation payroll | 567,404 | 530,964 |
| 3. Amortization factor | 10.118 | 10.703 |
| 4. Total side account rate (-1. ÷ 2. ÷ 3.)¹ | 0.00% | 0.00% |

¹ For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.

Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

| | December 31, 2014 | December 31, 2013 |
|---|--------------------|--------------------|
| 1. Member reserves | \$651,520 | \$695,563 |
| 2. Employer reserves | 1,492,568 | 1,479,845 |
| 3. Benefits in force reserve | 214,369 | 163,588 |
| 4. Total market value of assets (1. + 2. + 3.) | \$2,358,457 | \$2,338,997 |

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

| | December 31, 2013 to December 31, 2014 |
|---|---|
| 1. Market value of assets at beginning of year | \$2,338,997 |
| 2. Regular employer contributions | 8,037 |
| 3. Benefit payments and expense | (35,405) |
| 4. Adjustments ¹ | (113,680) |
| 5. Interest credited | 160,507 |
| 6. Total transferred from side accounts | 0 |
| 7. Market value of assets at end of year (1. + 2. + 3. + 4. + 5. + 6.) | \$2,358,457 |

¹ Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|------------------------|-------------------|-------------------|
| Tier 1 Police & Fire | \$0 | \$0 |
| Tier 1 General Service | 24,006 | 19,565 |
| Tier 2 Police & Fire | 0 | 0 |
| Tier 2 General Service | 10,749 | 8,337 |
| Total | \$34,755 | \$27,902 |

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-------------|----------------|---------------|------------|
| Normal Cost | \$29,791 | \$34,755 | \$4,964 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|--|--------------------|--------------------|
| Active Members | | |
| ▪ Tier 1 Police & Fire | \$0 | \$0 |
| ▪ Tier 1 General Service | 603,190 | 554,576 |
| ▪ Tier 2 Police & Fire | 0 | 0 |
| ▪ Tier 2 General Service | 286,424 | 230,767 |
| ▪ Total Active Members | \$889,614 | \$785,343 |
| Dormant Members | 839,786 | 664,059 |
| Retired Members and Beneficiaries | 415,869 | 263,698 |
| Total Actuarial Accrued Liability | \$2,145,269 | \$1,713,100 |

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-----------------------------|-------------------|------------------|---------------|
| Actuarial Accrued Liability | \$1,932,579 | \$2,145,269 | \$212,690 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Actuarial accrued liability | \$2,145,269 | \$1,713,100 |
| 2. Actuarial value of assets | 2,358,457 | 2,338,997 |
| 3. Unfunded accrued liability (1. – 2.) | (213,188) | (625,897) |
| 4. Funded percentage (2. ÷ 1.) | 110% | 137% |
| 5. Combined valuation payroll | \$567,404 | \$530,964 |
| 6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.) | (38%) | (118%) |

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

| Amortization Base | UAL December 31, 2013 | Payment | Interest | UAL December 31, 2014 | Next Year's Payment |
|-------------------|--------------------------|------------|------------|--------------------------|------------------------|
| December 31, 2013 | (\$625,897) | (\$45,302) | (\$46,638) | (\$627,233) | (\$46,984) |
| December 31, 2014 | N/A | N/A | N/A | \$414,045 | \$29,960 |
| Total | | | | (\$213,188) | (\$17,024) |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

| | |
|--|--------------------|
| 1. Expected actuarial accrued liability | |
| a. Actuarial accrued liability at December 31, 2013 | \$1,713,100 |
| b. Normal cost at December 31, 2013 | 27,902 |
| c. Benefit payments during 2014 | (35,132) |
| d. Interest at 7.75% to December 31, 2014 | 132,485 |
| e. Expected actuarial accrued liability before changes (a. + b. + c. + d.) | 1,838,355 |
| f. Change in actuarial accrued liability due to assumption, method, and plan changes | 212,690 |
| g. Expected actuarial accrued liability at December 31, 2014 (e. + f.) | 2,051,045 |
| 2. Actuarial accrued liability at December 31, 2014 | 2,145,269 |
| 3. Gain/(loss) on actuarial accrued liability (1.g. - 2.) | (94,224) |
| 4. Expected actuarial value of assets | |
| a. Actuarial value of assets at December 31, 2013 | 2,338,997 |
| b. Contributions for 2014 ¹ | 8,037 |
| c. Benefit payments and expenses during 2014 | (35,405) |
| d. Interest at 7.75% to December 31, 2014 | 180,212 |
| e. Expected actuarial value of assets at December 31, 2014 (a. + b. + c. + d.) | 2,491,841 |
| 5. Actuarial value of assets at December 31, 2014 | 2,358,457 |
| 6. Gain/(loss) on actuarial value of assets (5. - 4.e.) | (133,384) |
| 7. Total actuarial gain/(loss) (3. + 6.) | (\$227,608) |

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

| | |
|---|--------------------|
| 1. UAL at December 31, 2013 | (\$625,897) |
| 2. Expected increase | (27,589) |
| 3. Liability (gain)/loss | 94,224 |
| 4. Asset (gain)/loss | 133,384 |
| 5. Change due to changes in assumptions, methods, and plan provisions | 212,690 |
| 6. UAL at December 31, 2014 (1. + 2. + 3. + 4. + 5.) | (\$213,188) |

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

| | December 31, 2014 | | | December 31, 2013 | | |
|------------------------|-------------------|---|------------------------|-------------------|---|------------------------|
| | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate |
| Tier 1 Police & Fire | \$0 | \$0 | 0.00% | \$0 | \$0 | 0.00% |
| Tier 1 General Service | 24,006 | 145,409 | 16.51% | 19,565 | 136,879 | 14.29% |
| Tier 2 Police & Fire | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 General Service | 10,749 | 113,047 | 9.51% | 8,337 | 99,360 | 8.39% |
| Total | \$34,755 | \$258,456 | 13.45% | \$27,902 | \$236,239 | 11.81% |

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Total Tier 1/Tier 2 UAL | (\$213,188) | (\$625,897) |
| 2. Next year's Tier 1/Tier 2 UAL payment | (17,024) | (45,302) |
| 3. Combined valuation payroll | 567,404 | 530,964 |
| 4. Tier 1/Tier 2 UAL rate (2. ÷ 3.) | (3.00%) | (8.53%) |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|---|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 13.45% | 11.81% |
| b. Tier 1/Tier 2 UAL rate | (3.00%) | (8.53%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate (a. + b. + c.) | 10.60% | 3.43% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

| | |
|--|---------|
| 1. Current net Tier 1/Tier 2 pension contribution rate | 5.47% |
| 2. Employer contribution rate attributable to side accounts | 0.00% |
| 3. Current employer Tier 1/Tier 2 pension contribution rate (1. – 2.) | 5.47% |
| 4. Size of rate collar | |
| a. 20% of current employer contribution rate (20% x 3.) | 1.09% |
| b. Preliminary size of rate collar (maximum of 3% or a.) | 3.00% |
| c. Funded percentage | 110% |
| d. Size of rate collar (If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.) | 3.00% |
| 5. Advisory July 1, 2017 minimum employer contribution rate (3. – 4.d. but not < 0%) | 2.47% |
| 6. Advisory July 1, 2017 maximum employer contribution rate (3. + 4.d.) | 8.47% |
| 7. Advisory July 1, 2017 total pension rate, before adjustment | 10.60% |
| 8. Net adjustment due to rate collar (5. – 7., but not < 0, or 6. – 7., but not > 0) | (2.13%) |
| 9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar | (3.00%) |
| 10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar (8. + 9.) | (5.13%) |
| 11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar | 8.47% |
| 12. Tier 1/Tier 2 retiree healthcare rate | 0.50% |
| 13. Net adjustment due to 6% minimum (6% - 11. - 12., minimum 0%) | 0.00% |
| 14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment | 13.45% |
| 15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment (13. + 14.) | 13.45% |
| 16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment (11. + 13.) | 8.47% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|--|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 13.45% | 13.85% |
| b. Tier 1/Tier 2 UAL rate | (5.13%) | (8.53%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate | 8.47% | 5.47% |
| <i>(a. + b. + c., minimum of 5.50%)</i> | | |

Data

Demographic Information

Employer Valuation Payroll

| | General Service | Police & Fire | Total |
|-----------------------------------|------------------|---------------|------------------|
| Tier 1 | \$145,409 | \$0 | \$145,409 |
| Tier 2 | 113,047 | 0 | 113,047 |
| Tier 1/Tier 2 valuation payroll | 258,456 | 0 | 258,456 |
| OPSRP valuation payroll | 308,948 | 0 | 308,948 |
| Combined valuation payroll | \$567,404 | \$0 | \$567,404 |

Employer Member Census

| | December 31 | | | | | | | |
|--|-------------|----------|------------|-----------|-----------|----------|------------|-----------|
| | 2014 | | | | 2013 | | | |
| | Tier 1 | Tier 2 | OPSRP | Total | Tier 1 | Tier 2 | OPSRP | Total |
| Active Members ¹ | | | | | | | | |
| General Service | 2 | 2 | 9 | 13 | 2 | 2 | 8 | 12 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 2 | 2 | 9 | 13 | 2 | 2 | 8 | 12 |
| Active Members with previous service segments with the employer | | | | | | | | |
| General Service | 4 | 4 | N/A | 8 | 5 | 4 | N/A | 9 |
| Police & Fire | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Total | 4 | 4 | N/A | 8 | 5 | 4 | N/A | 9 |
| Dormant Members | | | | | | | | |
| General Service | 5 | 0 | 0 | 5 | 5 | 0 | 0 | 5 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 5 | 0 | 0 | 5 | 5 | 0 | 0 | 5 |
| Retired Members and Beneficiaries | | | | | | | | |
| General Service | 4 | 0 | 0 | 4 | 3 | 0 | 0 | 3 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 4 | 0 | 0 | 4 | 3 | 0 | 0 | 3 |
| Grand Total Number of Members | 15 | 6 | 9 | 30 | 15 | 6 | 8 | 29 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

| Age | Years of Service | | | | | | | | | Total |
|--------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| <20 | | | | | | | | | | |
| 20-24 | | | | | | | | | | |
| 25-29 | | | | | | | | | | |
| 30-34 | | | 1 | | | | | | | 1 |
| 35-39 | | | | | | | | | | |
| 40-44 | | | 1 | | | | | | | 1 |
| 45-49 | | | | | 1 | | | | | 1 |
| 50-54 | | | | | 1 | | | | | 1 |
| 55-59 | | | | | | | | | | |
| 60-64 | | | | | | | | | | |
| 65-69 | | | | | | | | | | |
| 70-74 | | | | | | | | | | |
| 75+ | | | | | | | | | | |
| Total | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 4 |

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|----------|----------------------------------|-----------------------------------|----------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | 1 | 599 |
| 30-34 | | | 55-59 | | |
| 35-39 | | | 60-64 | 1 | 182 |
| 40-44 | 1 | 2,352 | 65-69 | 2 | 950 |
| 45-49 | 1 | 1,905 | 70-74 | | |
| 50-54 | 2 | 833 | 75-79 | | |
| 55-59 | 1 | 3,032 | 80-84 | | |
| 60-64 | | | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | 5 | 1,791 | Total | 4 | 670 |

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

| | |
|---|--|
| <i>Actuarial cost method</i> | Entry Age Normal. |
| <i>Amortization Method</i> | <p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.</p> |
| <i>Asset valuation method</i> | Market value of assets, excluding reserves. |
| <i>Contribution rate stabilization method (rate collar)</i> | <p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p> |

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

| | |
|--------------------------------------|--|
| <i>Net investment return</i> | 7.50% compounded annually on system assets. |
| <i>Interest crediting</i> | <p>7.50% compounded annually on members' regular account balances starting in 2015.</p> <p>7.50% compounded annually on members' variable account balances starting in 2015.</p> |
| <i>Consumer price inflation</i> | 2.50% per year. |
| <i>Future general wage inflation</i> | 3.50% per year. |
| <i>Healthcare cost inflation</i> | Ranging from 7.0% in 2015 to 4.4% in 2094. |
| <i>Administrative Expenses</i> | <p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p> |

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

Administrative expenses for the Tier 1/Tier 2 System are assumed to be \$33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

November 2015

Tillamook County Soil And Water Conservation District/2821
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.



November 2015

Tillamook County Soil And Water Conservation District/2821

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



November 2015

Tillamook County Soil And Water Conservation District/2821

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Tillamook County Soil And Water Conservation District -- #2821

November 2015

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Executive Summary

Milliman has prepared this report for Tillamook County Soil And Water Conservation District to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Tillamook County Soil And Water Conservation District.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Tillamook County Soil And Water Conservation District

| | Payroll | | |
|---|---------------|--------------------------|------------------------|
| | Tier 1/Tier 2 | OPSRP General Service | OPSRP Police & Fire |
| Pension | | | |
| Normal cost rate | 12.97% | 8.10% | 12.90% |
| Tier 1/Tier 2 UAL rate ¹ | 2.31% | 2.31% | 2.31% |
| OPSRP UAL rate | 1.01% | 1.01% | 1.01% |
| Side account rate relief | 0.00% | 0.00% | 0.00% |
| Net pension contribution rate | 16.29% | 11.42% | 16.22% |
| Retiree Healthcare | | | |
| Normal cost rate | 0.07% | 0.00% | 0.00% |
| UAL rate | 0.43% | 0.43% | 0.43% |
| Net retiree healthcare rate | 0.50% | 0.43% | 0.43% |
| Total net employer contribution rate | 16.79% | 11.85% | 16.65% |

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 77%.

| Funded Status as of December 31, 2015 | 70% to 130% | Under 60% or Over 140% |
|--|--------------------|-------------------------------|
| 2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate | 12.28% | 12.28% |
| Minimum 2017-2019 Rate | 9.28% | 6.28% |
| Maximum 2017-2019 Rate | 15.28% | 18.28% |

Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b - a) | Funded Ratio (a ÷ b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a) ÷ c) |
|--------------------------|-------------------------------|---------------------------------------|----------------------|----------------------|---------------------|---|
| 12/31/2009 | \$160,075 | \$207,194 | \$47,119 | 77% | \$74,841 | 63% |
| 12/31/2010 | 224,527 | 251,501 | 26,974 | 89% | 62,899 | 43% |
| 12/31/2011 | 238,346 | 275,346 | 37,000 | 87% | 58,527 | 63% |
| 12/31/2012 | 285,362 | 301,823 | 16,461 | 95% | 63,910 | 26% |
| 12/31/2013 | 343,758 | 346,692 | 2,934 | 99% | 73,887 | 4% |
| 12/31/2014 | 390,400 | 504,206 | 113,806 | 77% | 166,220 | 68% |

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

| | Payroll | | |
|-------------------------------|-----------------|-----------------|---------------|
| | Tier 1 / Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| July 1, 2013 to June 30, 2015 | 0.59% | 0.49% | 0.49% |
| July 1, 2015 to June 30, 2017 | 0.53% | 0.45% | 0.45% |

Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Tillamook County Soil And Water Conservation District

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| T1/T2 UAL | \$113,806 | \$2,934 |
| Allocated pooled OPSRP UAL | 19,003 | 5,224 |
| Side account | 0 | 0 |
| Net unfunded pension actuarial accrued liability | 132,809 | 8,158 |
| Combined valuation payroll | 166,220 | 73,887 |
| Net pension UAL as a percentage of payroll | 80% | 11% |
| Calculated side account rate relief | 0.00% | 0.00% |
| Allocated pooled RHIA UAL | \$1,321 | \$1,023 |

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| Normal cost | \$21,552 | \$8,749 |
| Tier 1/Tier 2 valuation payroll | 166,220 | 73,887 |
| Tier 1/Tier 2 pension normal cost rate | 12.97% | 11.84% |
| Tier 1/ Tier 2 Actuarial accrued liability | \$504,206 | \$346,692 |
| Actuarial asset value | 390,400 | 343,758 |
| Tier 1/Tier 2 Unfunded actuarial accrued liability | 113,806 | 2,934 |
| Tier 1/ Tier 2 Funded status | 77% | 99% |
| Combined valuation payroll | \$166,220 | \$73,887 |
| Tier 1/Tier 2 UAL as a percentage of payroll | 68% | 4% |
| Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10) | 2.31% | 0.44% |
| Tier 1/Tier 2 active members ¹ | 3 | 2 |
| Tier 1/Tier 2 dormant members | 3 | 3 |
| Tier 1/Tier 2 retirees and beneficiaries | 0 | 0 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Executive Summary

Principal Valuation Results (continued)

OPSRP

| (\$ in millions) | Actuarial Valuation as of | |
|---|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| General service normal cost | \$301.3 | \$234.7 |
| OPSRP general service valuation payroll | 3,720.4 | 3,200.0 |
| General service normal cost rate | 8.10% | 7.33% |
| Police and fire normal cost | \$59.6 | \$45.5 |
| OPSRP police and fire valuation payroll | 462.3 | 398.1 |
| Police and fire normal cost rate | 12.90% | 11.44% |
| Actuarial accrued liability | \$3,064.1 | \$2,243.3 |
| Actuarial asset value | 2,024.6 | 1,630.2 |
| Unfunded actuarial accrued liability | 1,039.5 | 613.2 |
| Funded status | 66% | 73% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 11% | 7% |
| UAL rate | 1.01% | 0.61% |

Retiree Healthcare

| (\$ in millions) | Actuarial Valuation as of | |
|--------------------------------------|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| RHIA | | |
| Normal cost | \$3.5 | \$4.0 |
| Tier 1 / Tier 2 valuation payroll | 4,933.1 | 5,073.7 |
| Normal cost rate | 0.07% | 0.08% |
| Actuarial accrued liability | \$468.4 | \$473.6 |
| Actuarial asset value | 395.9 | 353.5 |
| Unfunded actuarial accrued liability | 72.5 | 120.0 |
| Funded status | 85% | 75% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 1% | 1% |
| UAL rate | 0.43% | 0.45% |

Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

| | New | Continuing | Total |
|---|------------|------------|-------|
| 1. Side account as of December 31, 2013 | N/A | | |
| 2. Deposits made during 2014 | | N/A | |
| 3. Administrative expenses | | | |
| 4. Amount transferred to employer reserves during 2014 | | | |
| 5. Side account earnings during 2014 | | | |
| 6. Side account as of December 31, 2014 (1. + 2. + 3. + 4. + 5.) | | | |

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Total side account | \$0 | \$0 |
| 2. Combined valuation payroll | 166,220 | 73,887 |
| 3. Amortization factor | 10.118 | 10.703 |
| 4. Total side account rate (-1. ÷ 2. ÷ 3.)¹ | 0.00% | 0.00% |

¹ For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.

Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Member reserves | \$86,679 | \$81,769 |
| 2. Employer reserves | 303,721 | 261,989 |
| 3. Benefits in force reserve | 0 | 0 |
| 4. Total market value of assets (1. + 2. + 3.) | \$390,400 | \$343,758 |

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

| | December 31, 2013 to December 31, 2014 |
|---|---|
| 1. Market value of assets at beginning of year | \$343,758 |
| 2. Regular employer contributions | 21,297 |
| 3. Benefit payments and expense | 0 |
| 4. Adjustments ¹ | (282) |
| 5. Interest credited | 25,627 |
| 6. Total transferred from side accounts | 0 |
| 7. Market value of assets at end of year (1. + 2. + 3. + 4. + 5. + 6.) | \$390,400 |

¹ Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|------------------------|-------------------|-------------------|
| Tier 1 Police & Fire | \$0 | \$0 |
| Tier 1 General Service | 9,555 | 1,466 |
| Tier 2 Police & Fire | 0 | 0 |
| Tier 2 General Service | 11,997 | 7,283 |
| Total | \$21,552 | \$8,749 |

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-------------|----------------|---------------|------------|
| Normal Cost | \$18,404 | \$21,552 | \$3,148 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| Active Members | | |
| ▪ Tier 1 Police & Fire | \$0 | \$0 |
| ▪ Tier 1 General Service | 39,036 | 25,526 |
| ▪ Tier 2 Police & Fire | 0 | 0 |
| ▪ Tier 2 General Service | 388,766 | 221,194 |
| ▪ Total Active Members | \$427,802 | \$246,720 |
| Dormant Members | 76,404 | 99,972 |
| Retired Members and Beneficiaries | 0 | 0 |
| Total Actuarial Accrued Liability | \$504,206 | \$346,692 |

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-----------------------------|-------------------|------------------|---------------|
| Actuarial Accrued Liability | \$453,695 | \$504,206 | \$50,511 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Actuarial accrued liability | \$504,206 | \$346,692 |
| 2. Actuarial value of assets | 390,400 | 343,758 |
| 3. Unfunded accrued liability (1. – 2.) | 113,806 | 2,934 |
| 4. Funded percentage (2. ÷ 1.) | 77% | 99% |
| 5. Combined valuation payroll | \$166,220 | \$73,887 |
| 6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.) | 68% | 4% |

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

| Amortization Base | UAL December 31, 2013 | Payment | Interest | UAL December 31, 2014 | Next Year's Payment |
|-------------------|--------------------------|---------|----------|--------------------------|------------------------|
| December 31, 2013 | \$2,934 | \$212 | \$219 | \$2,941 | \$220 |
| December 31, 2014 | N/A | N/A | N/A | \$110,865 | \$8,022 |
| Total | | | | \$113,806 | \$8,242 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

| | |
|--|-------------------|
| 1. Expected actuarial accrued liability | |
| a. Actuarial accrued liability at December 31, 2013 | \$346,692 |
| b. Normal cost at December 31, 2013 | 8,749 |
| c. Benefit payments during 2014 | 0 |
| d. Interest at 7.75% to December 31, 2014 | 27,208 |
| e. Expected actuarial accrued liability before changes (a. + b. + c. + d.) | 382,649 |
| f. Change in actuarial accrued liability due to assumption, method, and plan changes | 50,511 |
| g. Expected actuarial accrued liability at December 31, 2014 (e. + f.) | 433,160 |
| 2. Actuarial accrued liability at December 31, 2014 | 504,206 |
| 3. Gain/(loss) on actuarial accrued liability (1.g. - 2.) | (71,046) |
| 4. Expected actuarial value of assets | |
| a. Actuarial value of assets at December 31, 2013 | 343,758 |
| b. Contributions for 2014 ¹ | 21,297 |
| c. Benefit payments and expenses during 2014 | 0 |
| d. Interest at 7.75% to December 31, 2014 | 27,466 |
| e. Expected actuarial value of assets at December 31, 2014 (a. + b. + c. + d.) | 392,521 |
| 5. Actuarial value of assets at December 31, 2014 | 390,400 |
| 6. Gain/(loss) on actuarial value of assets (5. - 4.e.) | (2,122) |
| 7. Total actuarial gain/(loss) (3. + 6.) | (\$73,168) |

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

| | |
|---|------------------|
| 1. UAL at December 31, 2013 | \$2,934 |
| 2. Expected increase | (12,807) |
| 3. Liability (gain)/loss | 71,046 |
| 4. Asset (gain)/loss | 2,122 |
| 5. Change due to changes in assumptions, methods, and plan provisions | 50,511 |
| 6. UAL at December 31, 2014 (1. + 2. + 3. + 4. + 5.) | \$113,806 |

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

| | December 31, 2014 | | | December 31, 2013 | | |
|------------------------|-------------------|--|------------------|-------------------|--|------------------|
| | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate |
| Tier 1 Police & Fire | \$0 | \$0 | 0.00% | \$0 | \$0 | 0.00% |
| Tier 1 General Service | 9,555 | 55,379 | 17.25% | 1,466 | 7,208 | 20.34% |
| Tier 2 Police & Fire | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 General Service | 11,997 | 110,841 | 10.82% | 7,283 | 66,679 | 10.92% |
| Total | \$21,552 | \$166,220 | 12.97% | \$8,749 | \$73,887 | 11.84% |

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Total Tier 1/Tier 2 UAL | \$113,806 | \$2,934 |
| 2. Next year's Tier 1/Tier 2 UAL payment | 8,242 | 212 |
| 3. Combined valuation payroll | 166,220 | 73,887 |
| 4. Tier 1/Tier 2 UAL rate (2. ÷ 3.) | 4.96% | 0.29% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|---|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 12.97% | 11.84% |
| b. Tier 1/Tier 2 UAL rate | 4.96% | 0.29% |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate (a. + b. + c.) | 18.08% | 12.28% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

| | |
|--|---------|
| 1. Current net Tier 1/Tier 2 pension contribution rate | 12.28% |
| 2. Employer contribution rate attributable to side accounts | 0.00% |
| 3. Current employer Tier 1/Tier 2 pension contribution rate (1. – 2.) | 12.28% |
| 4. Size of rate collar | |
| a. 20% of current employer contribution rate (20% x 3.) | 2.46% |
| b. Preliminary size of rate collar (maximum of 3% or a.) | 3.00% |
| c. Funded percentage | 77% |
| d. Size of rate collar (If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.) | 3.00% |
| 5. Advisory July 1, 2017 minimum employer contribution rate (3. – 4.d. but not < 0%) | 9.28% |
| 6. Advisory July 1, 2017 maximum employer contribution rate (3. + 4.d.) | 15.28% |
| 7. Advisory July 1, 2017 total pension rate, before adjustment | 18.08% |
| 8. Net adjustment due to rate collar (5. – 7., but not < 0, or 6. – 7., but not > 0) | (2.80%) |
| 9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar | 4.96% |
| 10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar (8. + 9.) | 2.16% |
| 11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar | 15.28% |
| 12. Tier 1/Tier 2 retiree healthcare rate | 0.50% |
| 13. Net adjustment due to 6% minimum (6% - 11. - 12., minimum 0%) | 0.00% |
| 14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment | 12.97% |
| 15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment (13. + 14.) | 12.97% |
| 16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment (11. + 13.) | 15.28% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|--|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 12.97% | 11.84% |
| b. Tier 1/Tier 2 UAL rate | 2.16% | 0.29% |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate <i>(a. + b. + c., minimum of 5.50%)</i> | 15.28% | 12.28% |

Data

Demographic Information

Employer Valuation Payroll

| | General Service | Police & Fire | Total |
|-----------------------------------|------------------|---------------|------------------|
| Tier 1 | \$55,379 | \$0 | \$55,379 |
| Tier 2 | 110,841 | 0 | 110,841 |
| Tier 1/Tier 2 valuation payroll | 166,220 | 0 | 166,220 |
| OPSRP valuation payroll | 0 | 0 | 0 |
| Combined valuation payroll | \$166,220 | \$0 | \$166,220 |

Employer Member Census

| | December 31 | | | | | | | |
|--|-------------|----------|----------|----------|----------|----------|----------|----------|
| | 2014 | | | | 2013 | | | |
| | Tier 1 | Tier 2 | OPSRP | Total | Tier 1 | Tier 2 | OPSRP | Total |
| Active Members ¹ | | | | | | | | |
| General Service | 1 | 2 | 0 | 3 | 0 | 2 | 0 | 2 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 1 | 2 | 0 | 3 | 0 | 2 | 0 | 2 |
| Active Members with previous service segments with the employer | | | | | | | | |
| General Service | 0 | 1 | N/A | 1 | 1 | 1 | N/A | 2 |
| Police & Fire | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Total | 0 | 1 | N/A | 1 | 1 | 1 | N/A | 2 |
| Dormant Members | | | | | | | | |
| General Service | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 3 | 0 | 3 | 0 | 3 | 0 | 3 |
| Retired Members and Beneficiaries | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total Number of Members | 1 | 6 | 0 | 7 | 1 | 6 | 0 | 7 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

| Age | Years of Service | | | | | | | | | Total |
|--------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| <20 | | | | | | | | | | |
| 20-24 | | | | | | | | | | |
| 25-29 | | | | | | | | | | |
| 30-34 | | | | | | | | | | |
| 35-39 | | | | | | | | | | |
| 40-44 | | | | | | | | | | |
| 45-49 | | | | | | | | | | |
| 50-54 | | | | | 1 | | | | | 1 |
| 55-59 | | | | 1 | | | | | | 1 |
| 60-64 | | | | 1 | | | | | | 1 |
| 65-69 | | | | | | | | | | |
| 70-74 | | | | | | | | | | |
| 75+ | | | | | | | | | | |
| Total | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 3 |

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|----------|----------------------------------|-----------------------------------|-------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | | |
| 35-39 | | | 60-64 | | |
| 40-44 | 1 | 12 | 65-69 | | |
| 45-49 | | | 70-74 | | |
| 50-54 | 1 | 544 | 75-79 | | |
| 55-59 | | | 80-84 | | |
| 60-64 | 1 | 207 | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | 3 | 255 | Total | | |

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

| | |
|---|--|
| <i>Actuarial cost method</i> | Entry Age Normal. |
| <i>Amortization Method</i> | <p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.</p> |
| <i>Asset valuation method</i> | Market value of assets, excluding reserves. |
| <i>Contribution rate stabilization method (rate collar)</i> | <p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p> |

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

| | |
|--------------------------------------|--|
| <i>Net investment return</i> | 7.50% compounded annually on system assets. |
| <i>Interest crediting</i> | <p>7.50% compounded annually on members' regular account balances starting in 2015.</p> <p>7.50% compounded annually on members' variable account balances starting in 2015.</p> |
| <i>Consumer price inflation</i> | 2.50% per year. |
| <i>Future general wage inflation</i> | 3.50% per year. |
| <i>Healthcare cost inflation</i> | Ranging from 7.0% in 2015 to 4.4% in 2094. |
| <i>Administrative Expenses</i> | <p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p> |

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

Administrative expenses for the Tier 1/Tier 2 System are assumed to be \$33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called "funding method," a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

November 2015

Tillamook Fire District/2783
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.



November 2015
Tillamook Fire District/2783

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



November 2015
Tillamook Fire District/2783

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Tillamook Fire District -- #2783

November 2015

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Executive Summary

Milliman has prepared this report for Tillamook Fire District to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Tillamook Fire District.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Tillamook Fire District

| | Payroll | | |
|---|---------------|-----------------|---------------|
| | Tier 1/Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| Pension | | | |
| Normal cost rate | 19.67% | 8.10% | 12.90% |
| Tier 1/Tier 2 UAL rate ¹ | (3.83%) | (3.83%) | (3.83%) |
| OPSRP UAL rate | 1.01% | 1.01% | 1.01% |
| Side account rate relief | 0.00% | 0.00% | 0.00% |
| Net pension contribution rate | 16.85% | 5.28% | 10.08% |
| Retiree Healthcare | | | |
| Normal cost rate | 0.07% | 0.00% | 0.00% |
| UAL rate | 0.43% | 0.43% | 0.43% |
| Net retiree healthcare rate | 0.50% | 0.43% | 0.43% |
| Total net employer contribution rate | 17.35% | 5.71% | 10.51% |

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 98%.

| Funded Status as of December 31, 2015 | 70% to 130% | Under 60% or Over 140% |
|--|--------------------|-------------------------------|
| 2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate | 12.84% | 12.84% |
| Minimum 2017-2019 Rate | 9.84% | 6.84% |
| Maximum 2017-2019 Rate | 15.84% | 18.84% |

Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b - a) | Funded Ratio (a ÷ b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a) ÷ c) |
|--------------------------|-------------------------------|---------------------------------------|----------------------|----------------------|---------------------|---|
| 12/31/2009 | \$668,508 | \$632,050 | (\$36,458) | 106% | \$196,215 | (19%) |
| 12/31/2010 | 737,343 | 675,041 | (62,302) | 109% | 208,067 | (30%) |
| 12/31/2011 | 755,393 | 729,306 | (26,087) | 104% | 265,563 | (10%) |
| 12/31/2012 | 863,045 | 819,757 | (43,288) | 105% | 273,216 | (16%) |
| 12/31/2013 | 993,298 | 880,246 | (113,052) | 113% | 279,546 | (40%) |
| 12/31/2014 | 1,059,115 | 1,076,206 | 17,091 | 98% | 287,394 | 6% |

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

| | Payroll | | |
|-------------------------------|-----------------|-----------------|---------------|
| | Tier 1 / Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| July 1, 2013 to June 30, 2015 | 0.59% | 0.49% | 0.49% |
| July 1, 2015 to June 30, 2017 | 0.53% | 0.45% | 0.45% |

Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Tillamook Fire District

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| T1/T2 UAL | \$17,091 | (\$113,052) |
| Allocated pooled OPSRP UAL | 32,855 | 19,766 |
| Side account | 0 | 0 |
| Net unfunded pension actuarial accrued liability | 49,946 | (93,286) |
| Combined valuation payroll | 287,394 | 279,546 |
| Net pension UAL as a percentage of payroll | 17% | (33%) |
| Calculated side account rate relief | 0.00% | 0.00% |
| Allocated pooled RHIA UAL | \$2,284 | \$3,869 |

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| Normal cost | \$44,331 | \$35,288 |
| Tier 1/Tier 2 valuation payroll | 225,364 | 219,003 |
| Tier 1/Tier 2 pension normal cost rate | 19.67% | 16.11% |
| Tier 1/ Tier 2 Actuarial accrued liability | \$1,076,206 | \$880,246 |
| Actuarial asset value | 1,059,115 | 993,298 |
| Tier 1/Tier 2 Unfunded actuarial accrued liability | 17,091 | (113,052) |
| Tier 1/ Tier 2 Funded status | 98% | 113% |
| Combined valuation payroll | \$287,394 | \$279,546 |
| Tier 1/Tier 2 UAL as a percentage of payroll | 6% | (40%) |
| Tier 1/Tier 2 UAL rate | (3.83%) | (3.27%) |
| (includes Multnomah Fire District #10) | | |
| Tier 1/Tier 2 active members ¹ | 3 | 3 |
| Tier 1/Tier 2 dormant members | 0 | 0 |
| Tier 1/Tier 2 retirees and beneficiaries | 5 | 5 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Executive Summary

Principal Valuation Results (continued)

OPSRP

| (\$ in millions) | Actuarial Valuation as of | |
|---|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| General service normal cost | \$301.3 | \$234.7 |
| OPSRP general service valuation payroll | 3,720.4 | 3,200.0 |
| General service normal cost rate | 8.10% | 7.33% |
| Police and fire normal cost | \$59.6 | \$45.5 |
| OPSRP police and fire valuation payroll | 462.3 | 398.1 |
| Police and fire normal cost rate | 12.90% | 11.44% |
| Actuarial accrued liability | \$3,064.1 | \$2,243.3 |
| Actuarial asset value | 2,024.6 | 1,630.2 |
| Unfunded actuarial accrued liability | 1,039.5 | 613.2 |
| Funded status | 66% | 73% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 11% | 7% |
| UAL rate | 1.01% | 0.61% |

Retiree Healthcare

| (\$ in millions) | Actuarial Valuation as of | |
|--------------------------------------|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| RHIA | | |
| Normal cost | \$3.5 | \$4.0 |
| Tier 1 / Tier 2 valuation payroll | 4,933.1 | 5,073.7 |
| Normal cost rate | 0.07% | 0.08% |
| Actuarial accrued liability | \$468.4 | \$473.6 |
| Actuarial asset value | 395.9 | 353.5 |
| Unfunded actuarial accrued liability | 72.5 | 120.0 |
| Funded status | 85% | 75% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 1% | 1% |
| UAL rate | 0.43% | 0.45% |

Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

| | New | Continuing | Total |
|---|------------|------------|-------|
| 1. Side account as of December 31, 2013 | N/A | | |
| 2. Deposits made during 2014 | | N/A | |
| 3. Administrative expenses | | | |
| 4. Amount transferred to employer reserves during 2014 | | | |
| 5. Side account earnings during 2014 | | | |
| 6. Side account as of December 31, 2014 (1. + 2. + 3. + 4. + 5.) | | | |

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Total side account | \$0 | \$0 |
| 2. Combined valuation payroll | 287,394 | 279,546 |
| 3. Amortization factor | 10.118 | 10.703 |
| 4. Total side account rate (-1. ÷ 2. ÷ 3.)¹ | 0.00% | 0.00% |

¹ For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.

Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

| | December 31, 2014 | December 31, 2013 |
|---|--------------------|-------------------|
| 1. Member reserves | \$84,595 | \$78,818 |
| 2. Employer reserves | 803,641 | 731,792 |
| 3. Benefits in force reserve | 170,879 | 182,688 |
| 4. Total market value of assets (1. + 2. + 3.) | \$1,059,115 | \$993,298 |

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

| | December 31, 2013 to December 31, 2014 |
|---|---|
| 1. Market value of assets at beginning of year | \$993,298 |
| 2. Regular employer contributions | 17,632 |
| 3. Benefit payments and expense | (28,222) |
| 4. Adjustments ¹ | 4,583 |
| 5. Interest credited | 71,823 |
| 6. Total transferred from side accounts | 0 |
| 7. Market value of assets at end of year (1. + 2. + 3. + 4. + 5. + 6.) | \$1,059,115 |

¹ Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|------------------------|-------------------|-------------------|
| Tier 1 Police & Fire | \$19,771 | \$15,748 |
| Tier 1 General Service | 0 | 0 |
| Tier 2 Police & Fire | 24,560 | 19,540 |
| Tier 2 General Service | 0 | 0 |
| Total | \$44,331 | \$35,288 |

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-------------|----------------|---------------|------------|
| Normal Cost | \$36,471 | \$44,331 | \$7,860 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|--|--------------------|-------------------|
| Active Members | | |
| ▪ Tier 1 Police & Fire | \$414,556 | \$335,938 |
| ▪ Tier 1 General Service | 0 | 0 |
| ▪ Tier 2 Police & Fire | 330,149 | 249,822 |
| ▪ Tier 2 General Service | 0 | 0 |
| ▪ Total Active Members | \$744,705 | \$585,760 |
| Dormant Members | 0 | 0 |
| Retired Members and Beneficiaries | 331,501 | 294,486 |
| Total Actuarial Accrued Liability | \$1,076,206 | \$880,246 |

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-----------------------------|----------------|---------------|------------|
| Actuarial Accrued Liability | \$945,834 | \$1,076,206 | \$130,372 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Actuarial accrued liability | \$1,076,206 | \$880,246 |
| 2. Actuarial value of assets | 1,059,115 | 993,298 |
| 3. Unfunded accrued liability (1. – 2.) | 17,091 | (113,052) |
| 4. Funded percentage (2. ÷ 1.) | 98% | 113% |
| 5. Combined valuation payroll | \$287,394 | \$279,546 |
| 6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.) | 6% | (40%) |

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

| Amortization Base | UAL December 31, 2013 | Payment | Interest | UAL December 31, 2014 | Next Year's Payment |
|-------------------|--------------------------|-----------|-----------|--------------------------|------------------------|
| December 31, 2013 | (\$113,052) | (\$8,183) | (\$8,424) | (\$113,293) | (\$8,486) |
| December 31, 2014 | N/A | N/A | N/A | \$130,384 | \$9,434 |
| Total | | | | \$17,091 | \$948 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

| | |
|--|-----------------|
| 1. Expected actuarial accrued liability | |
| a. Actuarial accrued liability at December 31, 2013 | \$880,246 |
| b. Normal cost at December 31, 2013 | 35,288 |
| c. Benefit payments during 2014 | (28,005) |
| d. Interest at 7.75% to December 31, 2014 | 68,501 |
| e. Expected actuarial accrued liability before changes (a. + b. + c. + d.) | 956,030 |
| f. Change in actuarial accrued liability due to assumption, method, and plan changes | 130,372 |
| g. Expected actuarial accrued liability at December 31, 2014 (e. + f.) | 1,086,402 |
| 2. Actuarial accrued liability at December 31, 2014 | 1,076,206 |
| 3. Gain/(loss) on actuarial accrued liability (1.g. - 2.) | 10,196 |
| 4. Expected actuarial value of assets | |
| a. Actuarial value of assets at December 31, 2013 | 993,298 |
| b. Contributions for 2014 ¹ | 17,632 |
| c. Benefit payments and expenses during 2014 | (28,222) |
| d. Interest at 7.75% to December 31, 2014 | 76,570 |
| e. Expected actuarial value of assets at December 31, 2014 (a. + b. + c. + d.) | 1,059,279 |
| 5. Actuarial value of assets at December 31, 2014 | 1,059,115 |
| 6. Gain/(loss) on actuarial value of assets (5. - 4.e.) | (164) |
| 7. Total actuarial gain/(loss) (3. + 6.) | \$10,032 |

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

| | |
|---|--------------------|
| 1. UAL at December 31, 2013 | (\$113,052) |
| 2. Expected increase | 9,803 |
| 3. Liability (gain)/loss | (10,196) |
| 4. Asset (gain)/loss | 164 |
| 5. Change due to changes in assumptions, methods, and plan provisions | 130,372 |
| 6. UAL at December 31, 2014 (1. + 2. + 3. + 4. + 5.) | \$17,091 |

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

| | December 31, 2014 | | | December 31, 2013 | | |
|------------------------|-------------------|--|------------------|-------------------|--|------------------|
| | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate |
| Tier 1 Police & Fire | \$19,771 | \$88,400 | 22.37% | \$15,748 | \$85,858 | 18.34% |
| Tier 1 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 Police & Fire | 24,560 | 136,964 | 17.93% | 19,540 | 133,145 | 14.68% |
| Tier 2 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Total | \$44,331 | \$225,364 | 19.67% | \$35,288 | \$219,003 | 16.11% |

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Total Tier 1/Tier 2 UAL | \$17,091 | (\$113,052) |
| 2. Next year's Tier 1/Tier 2 UAL payment | 948 | (8,183) |
| 3. Combined valuation payroll | 287,394 | 279,546 |
| 4. Tier 1/Tier 2 UAL rate (2. ÷ 3.) | 0.33% | (2.93%) |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|---|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 19.67% | 16.11% |
| b. Tier 1/Tier 2 UAL rate | 0.33% | (2.93%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate (a. + b. + c.) | 20.15% | 13.33% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

| | |
|--|---------|
| 1. Current net Tier 1/Tier 2 pension contribution rate | 12.84% |
| 2. Employer contribution rate attributable to side accounts | 0.00% |
| 3. Current employer Tier 1/Tier 2 pension contribution rate (1. – 2.) | 12.84% |
| 4. Size of rate collar | |
| a. 20% of current employer contribution rate (20% x 3.) | 2.57% |
| b. Preliminary size of rate collar (maximum of 3% or a.) | 3.00% |
| c. Funded percentage | 98% |
| d. Size of rate collar (If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.) | 3.00% |
| 5. Advisory July 1, 2017 minimum employer contribution rate (3. – 4.d. but not < 0%) | 9.84% |
| 6. Advisory July 1, 2017 maximum employer contribution rate (3. + 4.d.) | 15.84% |
| 7. Advisory July 1, 2017 total pension rate, before adjustment | 20.15% |
| 8. Net adjustment due to rate collar (5. – 7., but not < 0, or 6. – 7., but not > 0) | (4.31%) |
| 9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar | 0.33% |
| 10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar (8. + 9.) | (3.98%) |
| 11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar | 15.84% |
| 12. Tier 1/Tier 2 retiree healthcare rate | 0.50% |
| 13. Net adjustment due to 6% minimum (6% - 11. - 12., minimum 0%) | 0.00% |
| 14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment | 19.67% |
| 15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment (13. + 14.) | 19.67% |
| 16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment (11. + 13.) | 15.84% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|--|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 19.67% | 16.11% |
| b. Tier 1/Tier 2 UAL rate | (3.98%) | (3.42%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate <i>(a. + b. + c., minimum of 5.50%)</i> | 15.84% | 12.84% |

Data

Demographic Information

Employer Valuation Payroll

| | General Service | Police & Fire | Total |
|-----------------------------------|-----------------|------------------|------------------|
| Tier 1 | \$0 | \$88,400 | \$88,400 |
| Tier 2 | 0 | 136,964 | 136,964 |
| Tier 1/Tier 2 valuation payroll | 0 | 225,364 | 225,364 |
| OPSRP valuation payroll | 0 | 62,030 | 62,030 |
| Combined valuation payroll | \$0 | \$287,394 | \$287,394 |

Employer Member Census

| | December 31 | | | | | | | |
|--|-------------|----------|------------|----------|----------|----------|------------|----------|
| | 2014 | | | | 2013 | | | |
| | Tier 1 | Tier 2 | OPSRP | Total | Tier 1 | Tier 2 | OPSRP | Total |
| Active Members ¹ | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 1 | 2 | 1 | 4 | 1 | 2 | 1 | 4 |
| Total | 1 | 2 | 1 | 4 | 1 | 2 | 1 | 4 |
| Active Members with previous service segments with the employer | | | | | | | | |
| General Service | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Police & Fire | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Total | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Dormant Members | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Retired Members and Beneficiaries | | | | | | | | |
| General Service | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
| Police & Fire | 4 | 0 | 0 | 4 | 4 | 0 | 0 | 4 |
| Total | 5 | 0 | 0 | 5 | 5 | 0 | 0 | 5 |
| Grand Total Number of Members | 6 | 2 | 1 | 9 | 6 | 2 | 1 | 9 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

| Age | Years of Service | | | | | | | | | Total |
|--------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| <20 | | | | | | | | | | |
| 20-24 | | | | | | | | | | |
| 25-29 | | | | | | | | | | |
| 30-34 | | | | | | | | | | |
| 35-39 | | | | | | | | | | |
| 40-44 | | | | 1 | | | | | | 1 |
| 45-49 | | | 1 | | | | | | | 1 |
| 50-54 | | | | | | | | | | |
| 55-59 | | | | 1 | | | | | | 1 |
| 60-64 | | | | | | | | | | |
| 65-69 | | | | | | | | | | |
| 70-74 | | | | | | | | | | |
| 75+ | | | | | | | | | | |
| Total | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 3 |

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|-------|----------------------------------|-----------------------------------|----------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | | |
| 35-39 | | | 60-64 | 1 | 910 |
| 40-44 | | | 65-69 | 3 | 350 |
| 45-49 | | | 70-74 | 1 | 75 |
| 50-54 | | | 75-79 | | |
| 55-59 | | | 80-84 | | |
| 60-64 | | | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | | | Total | 5 | 407 |

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

| | |
|---|--|
| <i>Actuarial cost method</i> | Entry Age Normal. |
| <i>Amortization Method</i> | <p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.</p> |
| <i>Asset valuation method</i> | Market value of assets, excluding reserves. |
| <i>Contribution rate stabilization method (rate collar)</i> | <p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p> |

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

| | |
|--------------------------------------|--|
| <i>Net investment return</i> | 7.50% compounded annually on system assets. |
| <i>Interest crediting</i> | <p>7.50% compounded annually on members' regular account balances starting in 2015.</p> <p>7.50% compounded annually on members' variable account balances starting in 2015.</p> |
| <i>Consumer price inflation</i> | 2.50% per year. |
| <i>Future general wage inflation</i> | 3.50% per year. |
| <i>Healthcare cost inflation</i> | Ranging from 7.0% in 2015 to 4.4% in 2094. |
| <i>Administrative Expenses</i> | <p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p> |

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

Administrative expenses for the Tier 1/Tier 2 System are assumed to be \$33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called "funding method," a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

November 2015

Town of Butte Falls/2253
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.



November 2015
Town of Butte Falls/2253

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



November 2015
Town of Butte Falls/2253

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Town of Butte Falls -- #2253

November 2015

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Executive Summary

Milliman has prepared this report for Town of Butte Falls to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Town of Butte Falls.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Town of Butte Falls

| | Payroll | | |
|---|---------------|-----------------|---------------|
| | Tier 1/Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| Pension | | | |
| Normal cost rate | 16.38% | 8.10% | 12.90% |
| Tier 1/Tier 2 UAL rate ¹ | (4.97%) | (4.97%) | (4.97%) |
| OPSRP UAL rate | 1.01% | 1.01% | 1.01% |
| Side account rate relief | 0.00% | 0.00% | 0.00% |
| Net pension contribution rate | 12.42% | 4.14% | 8.94% |
| Retiree Healthcare | | | |
| Normal cost rate | 0.07% | 0.00% | 0.00% |
| UAL rate | 0.43% | 0.43% | 0.43% |
| Net retiree healthcare rate | 0.50% | 0.43% | 0.43% |
| Total net employer contribution rate | 12.92% | 4.57% | 9.37% |

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 108%.

| Funded Status as of December 31, 2015 | 70% to 130% | Under 60% or Over 140% |
|--|--------------------|-------------------------------|
| 2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate | 8.41% | 8.41% |
| Minimum 2017-2019 Rate | 5.41% | 2.41% |
| Maximum 2017-2019 Rate | 11.41% | 14.41% |

Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b - a) | Funded Ratio (a ÷ b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a) ÷ c) |
|--------------------------|-------------------------------|---------------------------------------|----------------------|----------------------|---------------------|---|
| 12/31/2009 | \$183,862 | \$167,980 | (\$15,882) | 109% | \$107,885 | (15%) |
| 12/31/2010 | 197,488 | 178,619 | (18,869) | 111% | 112,140 | (17%) |
| 12/31/2011 | 198,605 | 200,004 | 1,399 | 99% | 86,198 | 2% |
| 12/31/2012 | 227,332 | 191,168 | (36,164) | 119% | 55,627 | (65%) |
| 12/31/2013 | 260,079 | 208,272 | (51,807) | 125% | 74,444 | (70%) |
| 12/31/2014 | 278,186 | 258,036 | (20,150) | 108% | 65,100 | (31%) |

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

| | Payroll | | |
|-------------------------------|-----------------|-----------------|---------------|
| | Tier 1 / Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| July 1, 2013 to June 30, 2015 | 0.59% | 0.49% | 0.49% |
| July 1, 2015 to June 30, 2017 | 0.53% | 0.45% | 0.45% |

Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Town of Butte Falls

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| T1/T2 UAL | (\$20,150) | (\$51,807) |
| Allocated pooled OPSRP UAL | 7,442 | 5,264 |
| Side account | 0 | 0 |
| Net unfunded pension actuarial accrued liability | (12,708) | (46,543) |
| Combined valuation payroll | 65,100 | 74,444 |
| Net pension UAL as a percentage of payroll | (20%) | (63%) |
| Calculated side account rate relief | 0.00% | 0.00% |
| Allocated pooled RHIA UAL | \$517 | \$1,030 |

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| Normal cost | \$5,732 | \$4,948 |
| Tier 1/Tier 2 valuation payroll | 34,988 | 19,159 |
| Tier 1/Tier 2 pension normal cost rate | 16.38% | 25.83% |
| Tier 1/ Tier 2 Actuarial accrued liability | \$258,036 | \$208,272 |
| Actuarial asset value | 278,186 | 260,079 |
| Tier 1/Tier 2 Unfunded actuarial accrued liability | (20,150) | (51,807) |
| Tier 1/ Tier 2 Funded status | 108% | 125% |
| Combined valuation payroll | \$65,100 | \$74,444 |
| Tier 1/Tier 2 UAL as a percentage of payroll | (31%) | (70%) |
| Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10) | (4.97%) | (17.42%) |
| Tier 1/Tier 2 active members ¹ | 1 | 1 |
| Tier 1/Tier 2 dormant members | 4 | 4 |
| Tier 1/Tier 2 retirees and beneficiaries | 3 | 3 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Executive Summary

Principal Valuation Results (continued)

OPSRP

| (\$ in millions) | Actuarial Valuation as of | |
|---|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| General service normal cost | \$301.3 | \$234.7 |
| OPSRP general service valuation payroll | 3,720.4 | 3,200.0 |
| General service normal cost rate | 8.10% | 7.33% |
| Police and fire normal cost | \$59.6 | \$45.5 |
| OPSRP police and fire valuation payroll | 462.3 | 398.1 |
| Police and fire normal cost rate | 12.90% | 11.44% |
| Actuarial accrued liability | \$3,064.1 | \$2,243.3 |
| Actuarial asset value | 2,024.6 | 1,630.2 |
| Unfunded actuarial accrued liability | 1,039.5 | 613.2 |
| Funded status | 66% | 73% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 11% | 7% |
| UAL rate | 1.01% | 0.61% |

Retiree Healthcare

| (\$ in millions) | Actuarial Valuation as of | |
|--------------------------------------|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| RHIA | | |
| Normal cost | \$3.5 | \$4.0 |
| Tier 1 / Tier 2 valuation payroll | 4,933.1 | 5,073.7 |
| Normal cost rate | 0.07% | 0.08% |
| Actuarial accrued liability | \$468.4 | \$473.6 |
| Actuarial asset value | 395.9 | 353.5 |
| Unfunded actuarial accrued liability | 72.5 | 120.0 |
| Funded status | 85% | 75% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 1% | 1% |
| UAL rate | 0.43% | 0.45% |

Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

| | New | Continuing | Total |
|---|------------|------------|-------|
| 1. Side account as of December 31, 2013 | N/A | | |
| 2. Deposits made during 2014 | | N/A | |
| 3. Administrative expenses | | | |
| 4. Amount transferred to employer reserves during 2014 | | | |
| 5. Side account earnings during 2014 | | | |
| 6. Side account as of December 31, 2014 (1. + 2. + 3. + 4. + 5.) | | | |

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Total side account | \$0 | \$0 |
| 2. Combined valuation payroll | 65,100 | 74,444 |
| 3. Amortization factor | 10.118 | 10.703 |
| 4. Total side account rate (-1. ÷ 2. ÷ 3.)¹ | 0.00% | 0.00% |

¹ For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.

Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Member reserves | \$56,911 | \$53,141 |
| 2. Employer reserves | 201,963 | 186,570 |
| 3. Benefits in force reserve | 19,313 | 20,368 |
| 4. Total market value of assets (1. + 2. + 3.) | \$278,186 | \$260,079 |

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

| | December 31, 2013 to December 31, 2014 |
|---|---|
| 1. Market value of assets at beginning of year | \$260,079 |
| 2. Regular employer contributions | 1,773 |
| 3. Benefit payments and expense | (3,190) |
| 4. Adjustments ¹ | 679 |
| 5. Interest credited | 18,845 |
| 6. Total transferred from side accounts | 0 |
| 7. Market value of assets at end of year (1. + 2. + 3. + 4. + 5. + 6.) | \$278,186 |

¹ Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|------------------------|-------------------|-------------------|
| Tier 1 Police & Fire | \$5,322 | \$4,603 |
| Tier 1 General Service | 0 | 0 |
| Tier 2 Police & Fire | 0 | 0 |
| Tier 2 General Service | 410 | 345 |
| Total | \$5,732 | \$4,948 |

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-------------|----------------|---------------|------------|
| Normal Cost | \$4,863 | \$5,732 | \$869 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| Active Members | | |
| ▪ Tier 1 Police & Fire | \$66,838 | \$43,797 |
| ▪ Tier 1 General Service | 0 | 0 |
| ▪ Tier 2 Police & Fire | 32,147 | 30,010 |
| ▪ Tier 2 General Service | 1,961 | 1,576 |
| ▪ Total Active Members | \$100,946 | \$75,383 |
| Dormant Members | 119,624 | 100,057 |
| Retired Members and Beneficiaries | 37,466 | 32,832 |
| Total Actuarial Accrued Liability | \$258,036 | \$208,272 |

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-----------------------------|-------------------|------------------|---------------|
| Actuarial Accrued Liability | \$230,297 | \$258,036 | \$27,739 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Actuarial accrued liability | \$258,036 | \$208,272 |
| 2. Actuarial value of assets | 278,186 | 260,079 |
| 3. Unfunded accrued liability (1. – 2.) | (20,150) | (51,807) |
| 4. Funded percentage (2. ÷ 1.) | 108% | 125% |
| 5. Combined valuation payroll | \$65,100 | \$74,444 |
| 6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.) | (31%) | (70%) |

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

| Amortization Base | UAL December 31, 2013 | Payment | Interest | UAL December 31, 2014 | Next Year's Payment |
|-------------------|--------------------------|-----------|-----------|--------------------------|------------------------|
| December 31, 2013 | (\$51,807) | (\$3,750) | (\$3,860) | (\$51,917) | (\$3,889) |
| December 31, 2014 | N/A | N/A | N/A | \$31,767 | \$2,299 |
| Total | | | | (\$20,150) | (\$1,590) |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

| | |
|--|------------------|
| 1. Expected actuarial accrued liability | |
| a. Actuarial accrued liability at December 31, 2013 | \$208,272 |
| b. Normal cost at December 31, 2013 | 4,948 |
| c. Benefit payments during 2014 | (3,165) |
| d. Interest at 7.75% to December 31, 2014 | 16,210 |
| e. Expected actuarial accrued liability before changes (a. + b. + c. + d.) | 226,265 |
| f. Change in actuarial accrued liability due to assumption, method, and plan changes | 27,739 |
| g. Expected actuarial accrued liability at December 31, 2014 (e. + f.) | 254,004 |
| 2. Actuarial accrued liability at December 31, 2014 | 258,036 |
| 3. Gain/(loss) on actuarial accrued liability (1.g. - 2.) | (4,032) |
| 4. Expected actuarial value of assets | |
| a. Actuarial value of assets at December 31, 2013 | 260,079 |
| b. Contributions for 2014 ¹ | 1,773 |
| c. Benefit payments and expenses during 2014 | (3,190) |
| d. Interest at 7.75% to December 31, 2014 | 20,101 |
| e. Expected actuarial value of assets at December 31, 2014 (a. + b. + c. + d.) | 278,764 |
| 5. Actuarial value of assets at December 31, 2014 | 278,186 |
| 6. Gain/(loss) on actuarial value of assets (5. - 4.e.) | (577) |
| 7. Total actuarial gain/(loss) (3. + 6.) | (\$4,609) |

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

| | |
|---|-------------------|
| 1. UAL at December 31, 2013 | (\$51,807) |
| 2. Expected increase | (691) |
| 3. Liability (gain)/loss | 4,032 |
| 4. Asset (gain)/loss | 577 |
| 5. Change due to changes in assumptions, methods, and plan provisions | 27,739 |
| 6. UAL at December 31, 2014 (1. + 2. + 3. + 4. + 5.) | (\$20,150) |

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

| | December 31, 2014 | | | December 31, 2013 | | |
|------------------------|-------------------|--|------------------|-------------------|--|------------------|
| | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate |
| Tier 1 Police & Fire | \$5,322 | \$32,001 | 16.63% | \$4,603 | \$16,191 | 28.43% |
| Tier 1 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 Police & Fire | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 General Service | 410 | 2,987 | 13.73% | 345 | 2,968 | 11.62% |
| Total | \$5,732 | \$34,988 | 16.38% | \$4,948 | \$19,159 | 25.83% |

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Total Tier 1/Tier 2 UAL | (\$20,150) | (\$51,807) |
| 2. Next year's Tier 1/Tier 2 UAL payment | (1,590) | (3,750) |
| 3. Combined valuation payroll | 65,100 | 74,444 |
| 4. Tier 1/Tier 2 UAL rate (2. ÷ 3.) | (2.44%) | (5.04%) |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|---|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 16.38% | 25.83% |
| b. Tier 1/Tier 2 UAL rate | (2.44%) | (5.04%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate (a. + b. + c.) | 14.09% | 20.94% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

| | |
|--|---------|
| 1. Current net Tier 1/Tier 2 pension contribution rate | 8.41% |
| 2. Employer contribution rate attributable to side accounts | 0.00% |
| 3. Current employer Tier 1/Tier 2 pension contribution rate (1. – 2.) | 8.41% |
| 4. Size of rate collar | |
| a. 20% of current employer contribution rate (20% x 3.) | 1.68% |
| b. Preliminary size of rate collar (maximum of 3% or a.) | 3.00% |
| c. Funded percentage | 108% |
| d. Size of rate collar (If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.) | 3.00% |
| 5. Advisory July 1, 2017 minimum employer contribution rate (3. – 4.d. but not < 0%) | 5.41% |
| 6. Advisory July 1, 2017 maximum employer contribution rate (3. + 4.d.) | 11.41% |
| 7. Advisory July 1, 2017 total pension rate, before adjustment | 14.09% |
| 8. Net adjustment due to rate collar (5. – 7., but not < 0, or 6. – 7., but not > 0) | (2.68%) |
| 9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar | (2.44%) |
| 10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar (8. + 9.) | (5.12%) |
| 11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar | 11.41% |
| 12. Tier 1/Tier 2 retiree healthcare rate | 0.50% |
| 13. Net adjustment due to 6% minimum (6% - 11. - 12., minimum 0%) | 0.00% |
| 14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment | 16.38% |
| 15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment (13. + 14.) | 16.38% |
| 16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment (11. + 13.) | 11.41% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|--|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 16.38% | 25.83% |
| b. Tier 1/Tier 2 UAL rate | (5.12%) | (17.57%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate <i>(a. + b. + c., minimum of 5.50%)</i> | 11.41% | 8.41% |

Data

Demographic Information

Employer Valuation Payroll

| | General Service | Police & Fire | Total |
|-----------------------------------|-----------------|-----------------|-----------------|
| Tier 1 | \$0 | \$32,001 | \$32,001 |
| Tier 2 | 2,987 | 0 | 2,987 |
| Tier 1/Tier 2 valuation payroll | 2,987 | 32,001 | 34,988 |
| OPSRP valuation payroll | 30,112 | 0 | 30,112 |
| Combined valuation payroll | \$33,099 | \$32,001 | \$65,100 |

Employer Member Census

| | December 31 | | | | | | | |
|--|-------------|----------|----------|-----------|----------|----------|----------|-----------|
| | 2014 | | | | 2013 | | | |
| | Tier 1 | Tier 2 | OPSRP | Total | Tier 1 | Tier 2 | OPSRP | Total |
| Active Members ¹ | | | | | | | | |
| General Service | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| Police & Fire | 1 | 0 | 0 | 1 | 1 | 0 | 1 | 2 |
| Total | 1 | 0 | 1 | 2 | 1 | 0 | 2 | 3 |
| Active Members with previous service segments with the employer | | | | | | | | |
| General Service | 0 | 1 | N/A | 1 | 0 | 1 | N/A | 1 |
| Police & Fire | 1 | 1 | N/A | 2 | 1 | 1 | N/A | 2 |
| Total | 1 | 2 | N/A | 3 | 1 | 2 | N/A | 3 |
| Dormant Members | | | | | | | | |
| General Service | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| Police & Fire | 1 | 3 | 0 | 4 | 1 | 3 | 0 | 4 |
| Total | 1 | 3 | 1 | 5 | 1 | 3 | 1 | 5 |
| Retired Members and Beneficiaries | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 2 | 1 | 0 | 3 | 2 | 1 | 0 | 3 |
| Total | 2 | 1 | 0 | 3 | 2 | 1 | 0 | 3 |
| Grand Total Number of Members | 5 | 6 | 2 | 13 | 5 | 6 | 3 | 14 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

| Age | Years of Service | | | | | | | | | Total |
|--------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| <20 | | | | | | | | | | |
| 20-24 | | | | | | | | | | |
| 25-29 | | | | | | | | | | |
| 30-34 | | | | | | | | | | |
| 35-39 | | | | | | | | | | |
| 40-44 | | | | | | | | | | |
| 45-49 | | | | 1 | | | | | | 1 |
| 50-54 | | | | | | | | | | |
| 55-59 | | | | | | | | | | |
| 60-64 | | | | | | | | | | |
| 65-69 | | | | | | | | | | |
| 70-74 | | | | | | | | | | |
| 75+ | | | | | | | | | | |
| Total | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|----------|----------------------------------|-----------------------------------|----------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | | |
| 35-39 | | | 60-64 | 1 | 91 |
| 40-44 | 1 | 318 | 65-69 | | |
| 45-49 | 1 | 67 | 70-74 | 1 | 88 |
| 50-54 | 1 | 0 | 75-79 | | |
| 55-59 | | | 80-84 | | |
| 60-64 | 1 | 528 | 85-89 | 1 | 114 |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | 4 | 228 | Total | 3 | 97 |

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

| | |
|---|--|
| <i>Actuarial cost method</i> | Entry Age Normal. |
| <i>Amortization Method</i> | <p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.</p> |
| <i>Asset valuation method</i> | Market value of assets, excluding reserves. |
| <i>Contribution rate stabilization method (rate collar)</i> | <p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p> |

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

| | |
|--------------------------------------|--|
| <i>Net investment return</i> | 7.50% compounded annually on system assets. |
| <i>Interest crediting</i> | <p>7.50% compounded annually on members' regular account balances starting in 2015.</p> <p>7.50% compounded annually on members' variable account balances starting in 2015.</p> |
| <i>Consumer price inflation</i> | 2.50% per year. |
| <i>Future general wage inflation</i> | 3.50% per year. |
| <i>Healthcare cost inflation</i> | Ranging from 7.0% in 2015 to 4.4% in 2094. |
| <i>Administrative Expenses</i> | <p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p> |

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

Administrative expenses for the Tier 1/Tier 2 System are assumed to be \$33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

November 2015

Tri-County Cooperative Weed Management Area/2865
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.



November 2015
Tri-County Cooperative Weed Management Area/2865

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



November 2015
Tri-County Cooperative Weed Management Area/2865

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Tri-County Cooperative Weed Management Area -- #2865

November 2015

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Executive Summary

Milliman has prepared this report for Tri-County Cooperative Weed Management Area to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Tri-County Cooperative Weed Management Area.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Tri-County Cooperative Weed Management Area

| | Payroll | | |
|---|---------------|-----------------|---------------|
| | Tier 1/Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| Pension | | | |
| Normal cost rate | 17.01% | 8.10% | 12.90% |
| Tier 1/Tier 2 UAL rate ¹ | (2.54%) | (2.54%) | (2.54%) |
| OPSRP UAL rate | 1.01% | 1.01% | 1.01% |
| Side account rate relief | 0.00% | 0.00% | 0.00% |
| Net pension contribution rate | 15.48% | 6.57% | 11.37% |
| Retiree Healthcare | | | |
| Normal cost rate | 0.07% | 0.00% | 0.00% |
| UAL rate | 0.43% | 0.43% | 0.43% |
| Net retiree healthcare rate | 0.50% | 0.43% | 0.43% |
| Total net employer contribution rate | 15.98% | 7.00% | 11.80% |

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 100%.

| Funded Status as of December 31, 2015 | 70% to 130% | Under 60% or Over 140% |
|--|--------------------|-------------------------------|
| 2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate | 11.47% | 11.47% |
| Minimum 2017-2019 Rate | 8.47% | 5.47% |
| Maximum 2017-2019 Rate | 14.47% | 17.47% |

Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b - a) | Funded Ratio (a ÷ b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a) ÷ c) |
|--------------------------|-------------------------------|---------------------------------------|----------------------|----------------------|---------------------|---|
| 12/31/2009 | (\$155) | \$0 | \$155 | 0% | \$76,926 | 0% |
| 12/31/2010 | (252) | 0 | 252 | 0% | 113,522 | 0% |
| 12/31/2011 | (275) | 0 | 275 | 100% | 114,758 | 0% |
| 12/31/2012 | (295) | 0 | 295 | 0% | 96,745 | 0% |
| 12/31/2013 | (1,440) | 0 | 1,440 | 0% | 91,490 | 2% |
| 12/31/2014 | (3,031) | 0 | 3,031 | 0% | 75,233 | 4% |

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

| | Payroll | | |
|-------------------------------|-----------------|-----------------|---------------|
| | Tier 1 / Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| July 1, 2013 to June 30, 2015 | 0.59% | 0.49% | 0.49% |
| July 1, 2015 to June 30, 2017 | 0.53% | 0.45% | 0.45% |

Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Tri-County Cooperative Weed Management Area

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| T1/T2 UAL | \$3,031 | \$1,440 |
| Allocated pooled OPSRP UAL | 8,601 | 6,469 |
| Side account | 0 | 0 |
| Net unfunded pension actuarial accrued liability | 11,632 | 7,909 |
| Combined valuation payroll | 75,233 | 91,490 |
| Net pension UAL as a percentage of payroll | 15% | 9% |
| Calculated side account rate relief | 0.00% | 0.00% |
| Allocated pooled RHIA UAL | \$598 | \$1,266 |

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| Normal cost | \$0 | \$0 |
| Tier 1/Tier 2 valuation payroll | 0 | 0 |
| Tier 1/Tier 2 pension normal cost rate | 17.01% | 14.24% |
| Tier 1/ Tier 2 Actuarial accrued liability | \$0 | \$0 |
| Actuarial asset value | (3,031) | (1,440) |
| Tier 1/Tier 2 Unfunded actuarial accrued liability | 3,031 | 1,440 |
| Tier 1/ Tier 2 Funded status | 0% | 0% |
| Combined valuation payroll | \$75,233 | \$91,490 |
| Tier 1/Tier 2 UAL as a percentage of payroll | 4% | 2% |
| Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10) | (2.54%) | (2.77%) |
| Tier 1/Tier 2 active members ¹ | 0 | 0 |
| Tier 1/Tier 2 dormant members | 0 | 0 |
| Tier 1/Tier 2 retirees and beneficiaries | 0 | 0 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Executive Summary

Principal Valuation Results (continued)

OPSRP

| (\$ in millions) | Actuarial Valuation as of | |
|---|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| General service normal cost | \$301.3 | \$234.7 |
| OPSRP general service valuation payroll | 3,720.4 | 3,200.0 |
| General service normal cost rate | 8.10% | 7.33% |
| Police and fire normal cost | \$59.6 | \$45.5 |
| OPSRP police and fire valuation payroll | 462.3 | 398.1 |
| Police and fire normal cost rate | 12.90% | 11.44% |
| Actuarial accrued liability | \$3,064.1 | \$2,243.3 |
| Actuarial asset value | 2,024.6 | 1,630.2 |
| Unfunded actuarial accrued liability | 1,039.5 | 613.2 |
| Funded status | 66% | 73% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 11% | 7% |
| UAL rate | 1.01% | 0.61% |

Retiree Healthcare

| (\$ in millions) | Actuarial Valuation as of | |
|--------------------------------------|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| RHIA | | |
| Normal cost | \$3.5 | \$4.0 |
| Tier 1 / Tier 2 valuation payroll | 4,933.1 | 5,073.7 |
| Normal cost rate | 0.07% | 0.08% |
| Actuarial accrued liability | \$468.4 | \$473.6 |
| Actuarial asset value | 395.9 | 353.5 |
| Unfunded actuarial accrued liability | 72.5 | 120.0 |
| Funded status | 85% | 75% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 1% | 1% |
| UAL rate | 0.43% | 0.45% |

Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

| | New | Continuing | Total |
|---|------------|------------|-------|
| 1. Side account as of December 31, 2013 | N/A | | |
| 2. Deposits made during 2014 | | N/A | |
| 3. Administrative expenses | | | |
| 4. Amount transferred to employer reserves during 2014 | | | |
| 5. Side account earnings during 2014 | | | |
| 6. Side account as of December 31, 2014 (1. + 2. + 3. + 4. + 5.) | | | |

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Total side account | \$0 | \$0 |
| 2. Combined valuation payroll | 75,233 | 91,490 |
| 3. Amortization factor | 10.118 | 10.703 |
| 4. Total side account rate (-1. ÷ 2. ÷ 3.)¹ | 0.00% | 0.00% |

¹ For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.

Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Member reserves | \$0 | \$0 |
| 2. Employer reserves | (3,031) | (1,440) |
| 3. Benefits in force reserve | 0 | 0 |
| 4. Total market value of assets (1. + 2. + 3.) | (\$3,031) | (\$1,440) |

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

| | December 31, 2013 to December 31, 2014 |
|---|---|
| 1. Market value of assets at beginning of year | (\$1,440) |
| 2. Regular employer contributions | (1,318) |
| 3. Benefit payments and expense | 0 |
| 4. Adjustments ¹ | (81) |
| 5. Interest credited | (192) |
| 6. Total transferred from side accounts | 0 |
| 7. Market value of assets at end of year (1. + 2. + 3. + 4. + 5. + 6.) | (\$3,031) |

¹ Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|------------------------|-------------------|-------------------|
| Tier 1 Police & Fire | \$0 | \$0 |
| Tier 1 General Service | 0 | 0 |
| Tier 2 Police & Fire | 0 | 0 |
| Tier 2 General Service | 0 | 0 |
| Total | \$0 | \$0 |

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-------------|----------------|---------------|------------|
| Normal Cost | \$0 | \$0 | \$0 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| Active Members | | |
| ▪ Tier 1 Police & Fire | \$0 | \$0 |
| ▪ Tier 1 General Service | 0 | 0 |
| ▪ Tier 2 Police & Fire | 0 | 0 |
| ▪ Tier 2 General Service | 0 | 0 |
| ▪ Total Active Members | \$0 | \$0 |
| Dormant Members | 0 | 0 |
| Retired Members and Beneficiaries | 0 | 0 |
| Total Actuarial Accrued Liability | \$0 | \$0 |

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-----------------------------|-------------------|------------------|---------------|
| Actuarial Accrued Liability | \$0 | \$0 | \$0 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Actuarial accrued liability | \$0 | \$0 |
| 2. Actuarial value of assets | (3,031) | (1,440) |
| 3. Unfunded accrued liability (1. – 2.) | 3,031 | 1,440 |
| 4. Funded percentage (2. ÷ 1.) | 100% | 100% |
| 5. Combined valuation payroll | \$75,233 | \$91,490 |
| 6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.) | 4% | 2% |

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

| Amortization Base | UAL December 31, 2013 | Payment | Interest | UAL December 31, 2014 | Next Year's Payment |
|-------------------|--------------------------|---------|----------|--------------------------|------------------------|
| December 31, 2013 | \$1,440 | \$104 | \$107 | \$1,443 | \$108 |
| December 31, 2014 | N/A | N/A | N/A | \$1,588 | \$115 |
| Total | | | | \$3,031 | \$223 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

| | |
|--|----------------|
| 1. Expected actuarial accrued liability | |
| a. Actuarial accrued liability at December 31, 2013 | \$0 |
| b. Normal cost at December 31, 2013 | 0 |
| c. Benefit payments during 2014 | 0 |
| d. Interest at 7.75% to December 31, 2014 | 0 |
| e. Expected actuarial accrued liability before changes (a. + b. + c. + d.) | 0 |
| f. Change in actuarial accrued liability due to assumption, method, and plan changes | 0 |
| g. Expected actuarial accrued liability at December 31, 2014 (e. + f.) | 0 |
| 2. Actuarial accrued liability at December 31, 2014 | 0 |
| 3. Gain/(loss) on actuarial accrued liability (1.g. - 2.) | 0 |
| 4. Expected actuarial value of assets | |
| a. Actuarial value of assets at December 31, 2013 | (1,440) |
| b. Contributions for 2014 ¹ | (1,318) |
| c. Benefit payments and expenses during 2014 | 0 |
| d. Interest at 7.75% to December 31, 2014 | (163) |
| e. Expected actuarial value of assets at December 31, 2014 (a. + b. + c. + d.) | (2,921) |
| 5. Actuarial value of assets at December 31, 2014 | (3,031) |
| 6. Gain/(loss) on actuarial value of assets (5. - 4.e.) | (110) |
| 7. Total actuarial gain/(loss) (3. + 6.) | (\$110) |

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

| | |
|---|----------------|
| 1. UAL at December 31, 2013 | \$1,440 |
| 2. Expected increase | 1,481 |
| 3. Liability (gain)/loss | 0 |
| 4. Asset (gain)/loss | 110 |
| 5. Change due to changes in assumptions, methods, and plan provisions | 0 |
| 6. UAL at December 31, 2014 (1. + 2. + 3. + 4. + 5.) | \$3,031 |

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

| | December 31, 2014 | | | December 31, 2013 | | |
|------------------------|-------------------|--|------------------|-------------------|--|------------------|
| | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate |
| Tier 1 Police & Fire | \$0 | \$0 | 0.00% | \$0 | \$0 | 0.00% |
| Tier 1 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 Police & Fire | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Total | \$0 | \$0 | 17.01% | \$0 | \$0 | 14.24% |

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Total Tier 1/Tier 2 UAL | \$3,031 | \$1,440 |
| 2. Next year's Tier 1/Tier 2 UAL payment | 223 | 104 |
| 3. Combined valuation payroll | 75,233 | 91,490 |
| 4. Tier 1/Tier 2 UAL rate (2. ÷ 3.) | 0.30% | 0.11% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|---|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 17.01% | 14.24% |
| b. Tier 1/Tier 2 UAL rate | 0.30% | 0.11% |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate (a. + b. + c.) | 17.46% | 14.50% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

| | |
|--|---------|
| 1. Current net Tier 1/Tier 2 pension contribution rate | 11.47% |
| 2. Employer contribution rate attributable to side accounts | 0.00% |
| 3. Current employer Tier 1/Tier 2 pension contribution rate (1. – 2.) | 11.47% |
| 4. Size of rate collar | |
| a. 20% of current employer contribution rate (20% x 3.) | 2.29% |
| b. Preliminary size of rate collar (maximum of 3% or a.) | 3.00% |
| c. Funded percentage | 100% |
| d. Size of rate collar (If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.) | 3.00% |
| 5. Advisory July 1, 2017 minimum employer contribution rate (3. – 4.d. but not < 0%) | 8.47% |
| 6. Advisory July 1, 2017 maximum employer contribution rate (3. + 4.d.) | 14.47% |
| 7. Advisory July 1, 2017 total pension rate, before adjustment | 17.46% |
| 8. Net adjustment due to rate collar (5. – 7., but not < 0, or 6. – 7., but not > 0) | (2.99%) |
| 9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar | 0.30% |
| 10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar (8. + 9.) | (2.69%) |
| 11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar | 14.47% |
| 12. Tier 1/Tier 2 retiree healthcare rate | 0.50% |
| 13. Net adjustment due to 6% minimum (6% - 11. - 12., minimum 0%) | 0.00% |
| 14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment | 17.01% |
| 15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment (13. + 14.) | 17.01% |
| 16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment (11. + 13.) | 14.47% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|--|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 17.01% | 14.24% |
| b. Tier 1/Tier 2 UAL rate | (2.69%) | (2.92%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate <i>(a. + b. + c., minimum of 5.50%)</i> | 14.47% | 11.47% |

Data

Demographic Information

Employer Valuation Payroll

| | General Service | Police & Fire | Total |
|-----------------------------------|-----------------|---------------|-----------------|
| Tier 1 | \$0 | \$0 | \$0 |
| Tier 2 | 0 | 0 | 0 |
| Tier 1/Tier 2 valuation payroll | 0 | 0 | 0 |
| OPSRP valuation payroll | 75,233 | 0 | 75,233 |
| Combined valuation payroll | \$75,233 | \$0 | \$75,233 |

Employer Member Census

| | December 31 | | | | | | | |
|--|-------------|----------|----------|----------|----------|----------|----------|----------|
| | 2014 | | | | 2013 | | | |
| | Tier 1 | Tier 2 | OPSRP | Total | Tier 1 | Tier 2 | OPSRP | Total |
| Active Members ¹ | | | | | | | | |
| General Service | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 2 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 2 |
| Active Members with previous service segments with the employer | | | | | | | | |
| General Service | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Police & Fire | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Total | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Dormant Members | | | | | | | | |
| General Service | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| Retired Members and Beneficiaries | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total Number of Members | 0 | 0 | 3 | 3 | 0 | 0 | 2 | 2 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

| Age | Years of Service | | | | | | | | | Total |
|--------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| <20 | | | | | | | | | | |
| 20-24 | | | | | | | | | | |
| 25-29 | | | | | | | | | | |
| 30-34 | | | | | | | | | | |
| 35-39 | | | | | | | | | | |
| 40-44 | | | | | | | | | | |
| 45-49 | | | | | | | | | | |
| 50-54 | | | | | | | | | | |
| 55-59 | | | | | | | | | | |
| 60-64 | | | | | | | | | | |
| 65-69 | | | | | | | | | | |
| 70-74 | | | | | | | | | | |
| 75+ | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|-------|----------------------------------|-----------------------------------|-------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | | |
| 35-39 | | | 60-64 | | |
| 40-44 | | | 65-69 | | |
| 45-49 | | | 70-74 | | |
| 50-54 | | | 75-79 | | |
| 55-59 | | | 80-84 | | |
| 60-64 | | | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | | | Total | | |

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

| | |
|---|--|
| <i>Actuarial cost method</i> | Entry Age Normal. |
| <i>Amortization Method</i> | <p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.</p> |
| <i>Asset valuation method</i> | Market value of assets, excluding reserves. |
| <i>Contribution rate stabilization method (rate collar)</i> | <p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p> |

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

| | |
|--------------------------------------|--|
| <i>Net investment return</i> | 7.50% compounded annually on system assets. |
| <i>Interest crediting</i> | <p>7.50% compounded annually on members' regular account balances starting in 2015.</p> <p>7.50% compounded annually on members' variable account balances starting in 2015.</p> |
| <i>Consumer price inflation</i> | 2.50% per year. |
| <i>Future general wage inflation</i> | 3.50% per year. |
| <i>Healthcare cost inflation</i> | Ranging from 7.0% in 2015 to 4.4% in 2094. |
| <i>Administrative Expenses</i> | <p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p> |

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

Administrative expenses for the Tier 1/Tier 2 System are assumed to be \$33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

November 2015

Turner Fire District/2610
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.



November 2015
Turner Fire District/2610

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



November 2015
Turner Fire District/2610

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Turner Fire District -- #2610

November 2015

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Executive Summary

Milliman has prepared this report for Turner Fire District to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Turner Fire District.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Turner Fire District

| | Payroll | | |
|---|---------------|-----------------|---------------|
| | Tier 1/Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| Pension | | | |
| Normal cost rate | 25.83% | 8.10% | 12.90% |
| Tier 1/Tier 2 UAL rate ¹ | (8.36%) | (8.36%) | (8.36%) |
| OPSRP UAL rate | 1.01% | 1.01% | 1.01% |
| Side account rate relief | 0.00% | 0.00% | 0.00% |
| Net pension contribution rate | 18.48% | 0.75% | 5.55% |
| Retiree Healthcare | | | |
| Normal cost rate | 0.07% | 0.00% | 0.00% |
| UAL rate | 0.43% | 0.43% | 0.43% |
| Net retiree healthcare rate | 0.50% | 0.43% | 0.43% |
| Total net employer contribution rate | 18.98% | 1.18% | 5.98% |

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 91%.

| Funded Status as of December 31, 2015 | 70% to 130% | Under 60% or Over 140% |
|--|--------------------|-------------------------------|
| 2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate | 14.47% | 14.47% |
| Minimum 2017-2019 Rate | 11.47% | 8.47% |
| Maximum 2017-2019 Rate | 17.47% | 20.47% |

Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b - a) | Funded Ratio (a ÷ b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a) ÷ c) |
|--------------------------|-------------------------------|---------------------------------------|----------------------|----------------------|---------------------|---|
| 12/31/2009 | \$0 | \$0 | \$0 | 0% | \$0 | 0% |
| 12/31/2010 | 0 | 0 | 0 | 0% | 0 | 0% |
| 12/31/2011 | 0 | 0 | 0 | 0% | 0 | 0% |
| 12/31/2012 | 1,274,813 | 1,088,856 | (185,957) | 117% | 336,946 | (55%) |
| 12/31/2013 | 1,424,608 | 1,184,515 | (240,093) | 120% | 355,304 | (68%) |
| 12/31/2014 | 1,459,477 | 1,608,804 | 149,327 | 91% | 327,881 | 46% |

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

| | Payroll | | |
|-------------------------------|-----------------|-----------------|---------------|
| | Tier 1 / Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| July 1, 2013 to June 30, 2015 | 0.59% | 0.49% | 0.49% |
| July 1, 2015 to June 30, 2017 | 0.53% | 0.45% | 0.45% |

Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Turner Fire District

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| T1/T2 UAL | \$149,327 | (\$240,093) |
| Allocated pooled OPSRP UAL | 37,484 | 25,122 |
| Side account | 0 | 0 |
| Net unfunded pension actuarial accrued liability | 186,811 | (214,971) |
| Combined valuation payroll | 327,881 | 355,304 |
| Net pension UAL as a percentage of payroll | 57% | (61%) |
| Calculated side account rate relief | 0.00% | 0.00% |
| Allocated pooled RHIA UAL | \$2,606 | \$4,918 |

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| Normal cost | \$23,922 | \$17,489 |
| Tier 1/Tier 2 valuation payroll | 92,615 | 91,063 |
| Tier 1/Tier 2 pension normal cost rate | 25.83% | 19.21% |
| Tier 1/ Tier 2 Actuarial accrued liability | \$1,608,804 | \$1,184,515 |
| Actuarial asset value | 1,459,477 | 1,424,608 |
| Tier 1/Tier 2 Unfunded actuarial accrued liability | 149,327 | (240,093) |
| Tier 1/ Tier 2 Funded status | 91% | 120% |
| Combined valuation payroll | \$327,881 | \$355,304 |
| Tier 1/Tier 2 UAL as a percentage of payroll | 46% | (68%) |
| Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10) | (8.36%) | (4.74%) |
| Tier 1/Tier 2 active members ¹ | 1 | 1 |
| Tier 1/Tier 2 dormant members | 7 | 7 |
| Tier 1/Tier 2 retirees and beneficiaries | 5 | 3 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Executive Summary

Principal Valuation Results (continued)

OPSRP

| (\$ in millions) | Actuarial Valuation as of | |
|---|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| General service normal cost | \$301.3 | \$234.7 |
| OPSRP general service valuation payroll | 3,720.4 | 3,200.0 |
| General service normal cost rate | 8.10% | 7.33% |
| Police and fire normal cost | \$59.6 | \$45.5 |
| OPSRP police and fire valuation payroll | 462.3 | 398.1 |
| Police and fire normal cost rate | 12.90% | 11.44% |
| Actuarial accrued liability | \$3,064.1 | \$2,243.3 |
| Actuarial asset value | 2,024.6 | 1,630.2 |
| Unfunded actuarial accrued liability | 1,039.5 | 613.2 |
| Funded status | 66% | 73% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 11% | 7% |
| UAL rate | 1.01% | 0.61% |

Retiree Healthcare

| (\$ in millions) | Actuarial Valuation as of | |
|--------------------------------------|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| RHIA | | |
| Normal cost | \$3.5 | \$4.0 |
| Tier 1 / Tier 2 valuation payroll | 4,933.1 | 5,073.7 |
| Normal cost rate | 0.07% | 0.08% |
| Actuarial accrued liability | \$468.4 | \$473.6 |
| Actuarial asset value | 395.9 | 353.5 |
| Unfunded actuarial accrued liability | 72.5 | 120.0 |
| Funded status | 85% | 75% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 1% | 1% |
| UAL rate | 0.43% | 0.45% |

Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

| | New | Continuing | Total |
|---|------------|------------|-------|
| 1. Side account as of December 31, 2013 | N/A | | |
| 2. Deposits made during 2014 | | N/A | |
| 3. Administrative expenses | | | |
| 4. Amount transferred to employer reserves during 2014 | | | |
| 5. Side account earnings during 2014 | | | |
| 6. Side account as of December 31, 2014 (1. + 2. + 3. + 4. + 5.) | | | |

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Total side account | \$0 | \$0 |
| 2. Combined valuation payroll | 327,881 | 355,304 |
| 3. Amortization factor | 10.118 | 10.703 |
| 4. Total side account rate (-1. ÷ 2. ÷ 3.)¹ | 0.00% | 0.00% |

¹ For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.

Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

| | December 31, 2014 | December 31, 2013 |
|---|--------------------|--------------------|
| 1. Member reserves | \$150,738 | \$141,777 |
| 2. Employer reserves | 923,437 | 969,105 |
| 3. Benefits in force reserve | 385,302 | 313,726 |
| 4. Total market value of assets (1. + 2. + 3.) | \$1,459,477 | \$1,424,608 |

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

| | December 31, 2013 to December 31, 2014 |
|---|---|
| 1. Market value of assets at beginning of year | \$1,424,608 |
| 2. Regular employer contributions | 15,186 |
| 3. Benefit payments and expense | (63,635) |
| 4. Adjustments ¹ | (19,194) |
| 5. Interest credited | 102,513 |
| 6. Total transferred from side accounts | 0 |
| 7. Market value of assets at end of year (1. + 2. + 3. + 4. + 5. + 6.) | \$1,459,477 |

¹ Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|------------------------|-------------------|-------------------|
| Tier 1 Police & Fire | \$23,860 | \$17,489 |
| Tier 1 General Service | 0 | 0 |
| Tier 2 Police & Fire | 62 | 0 |
| Tier 2 General Service | 0 | 0 |
| Total | \$23,922 | \$17,489 |

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-------------|----------------|---------------|------------|
| Normal Cost | \$19,172 | \$23,922 | \$4,750 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|--|--------------------|--------------------|
| Active Members | | |
| ▪ Tier 1 Police & Fire | \$655,168 | \$498,840 |
| ▪ Tier 1 General Service | 0 | 914 |
| ▪ Tier 2 Police & Fire | 111,332 | 100,555 |
| ▪ Tier 2 General Service | 0 | 0 |
| ▪ Total Active Members | \$766,500 | \$600,309 |
| Dormant Members | 94,828 | 78,491 |
| Retired Members and Beneficiaries | 747,476 | 505,715 |
| Total Actuarial Accrued Liability | \$1,608,804 | \$1,184,515 |

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-----------------------------|-------------------|------------------|---------------|
| Actuarial Accrued Liability | \$1,393,928 | \$1,608,804 | \$214,876 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Actuarial accrued liability | \$1,608,804 | \$1,184,515 |
| 2. Actuarial value of assets | 1,459,477 | 1,424,608 |
| 3. Unfunded accrued liability (1. – 2.) | 149,327 | (240,093) |
| 4. Funded percentage (2. ÷ 1.) | 91% | 120% |
| 5. Combined valuation payroll | \$327,881 | \$355,304 |
| 6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.) | 46% | (68%) |

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

| Amortization Base | UAL December 31, 2013 | Payment | Interest | UAL December 31, 2014 | Next Year's Payment |
|-------------------|--------------------------|------------|------------|--------------------------|------------------------|
| December 31, 2013 | (\$240,093) | (\$17,378) | (\$17,890) | (\$240,605) | (\$18,023) |
| December 31, 2014 | N/A | N/A | N/A | \$389,932 | \$28,215 |
| Total | | | | \$149,327 | \$10,192 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

| | |
|--|--------------------|
| 1. Expected actuarial accrued liability | |
| a. Actuarial accrued liability at December 31, 2013 | \$1,184,515 |
| b. Normal cost at December 31, 2013 | 17,489 |
| c. Benefit payments during 2014 | (63,145) |
| d. Interest at 7.75% to December 31, 2014 | 90,031 |
| e. Expected actuarial accrued liability before changes (a. + b. + c. + d.) | 1,228,890 |
| f. Change in actuarial accrued liability due to assumption, method, and plan changes | 214,876 |
| g. Expected actuarial accrued liability at December 31, 2014 (e. + f.) | 1,443,766 |
| 2. Actuarial accrued liability at December 31, 2014 | 1,608,804 |
| 3. Gain/(loss) on actuarial accrued liability (1.g. - 2.) | (165,038) |
| 4. Expected actuarial value of assets | |
| a. Actuarial value of assets at December 31, 2013 | 1,424,608 |
| b. Contributions for 2014 ¹ | 15,186 |
| c. Benefit payments and expenses during 2014 | (63,635) |
| d. Interest at 7.75% to December 31, 2014 | 108,530 |
| e. Expected actuarial value of assets at December 31, 2014 (a. + b. + c. + d.) | 1,484,688 |
| 5. Actuarial value of assets at December 31, 2014 | 1,459,477 |
| 6. Gain/(loss) on actuarial value of assets (5. - 4.e.) | (25,211) |
| 7. Total actuarial gain/(loss) (3. + 6.) | (\$190,249) |

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

| | |
|---|--------------------|
| 1. UAL at December 31, 2013 | (\$240,093) |
| 2. Expected increase | (15,705) |
| 3. Liability (gain)/loss | 165,038 |
| 4. Asset (gain)/loss | 25,211 |
| 5. Change due to changes in assumptions, methods, and plan provisions | 214,876 |
| 6. UAL at December 31, 2014 (1. + 2. + 3. + 4. + 5.) | \$149,327 |

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

| | December 31, 2014 | | | December 31, 2013 | | |
|------------------------|-------------------|--|------------------|-------------------|--|------------------|
| | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate |
| Tier 1 Police & Fire | \$23,860 | \$92,265 | 25.86% | \$17,489 | \$91,063 | 19.21% |
| Tier 1 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 Police & Fire | 62 | 350 | 17.71% | 0 | 0 | 0.00% |
| Tier 2 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Total | \$23,922 | \$92,615 | 25.83% | \$17,489 | \$91,063 | 19.21% |

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Total Tier 1/Tier 2 UAL | \$149,327 | (\$240,093) |
| 2. Next year's Tier 1/Tier 2 UAL payment | 10,192 | (17,378) |
| 3. Combined valuation payroll | 327,881 | 355,304 |
| 4. Tier 1/Tier 2 UAL rate (2. ÷ 3.) | 3.11% | (4.89%) |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|---|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 25.83% | 19.21% |
| b. Tier 1/Tier 2 UAL rate | 3.11% | (4.89%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate (a. + b. + c.) | 29.09% | 14.47% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

| | |
|--|----------|
| 1. Current net Tier 1/Tier 2 pension contribution rate | 14.47% |
| 2. Employer contribution rate attributable to side accounts | 0.00% |
| 3. Current employer Tier 1/Tier 2 pension contribution rate (1. – 2.) | 14.47% |
| 4. Size of rate collar | |
| a. 20% of current employer contribution rate (20% x 3.) | 2.89% |
| b. Preliminary size of rate collar (maximum of 3% or a.) | 3.00% |
| c. Funded percentage | 91% |
| d. Size of rate collar (If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.) | 3.00% |
| 5. Advisory July 1, 2017 minimum employer contribution rate (3. – 4.d. but not < 0%) | 11.47% |
| 6. Advisory July 1, 2017 maximum employer contribution rate (3. + 4.d.) | 17.47% |
| 7. Advisory July 1, 2017 total pension rate, before adjustment | 29.09% |
| 8. Net adjustment due to rate collar (5. – 7., but not < 0, or 6. – 7., but not > 0) | (11.62%) |
| 9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar | 3.11% |
| 10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar (8. + 9.) | (8.51%) |
| 11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar | 17.47% |
| 12. Tier 1/Tier 2 retiree healthcare rate | 0.50% |
| 13. Net adjustment due to 6% minimum (6% - 11. - 12., minimum 0%) | 0.00% |
| 14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment | 25.83% |
| 15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment (13. + 14.) | 25.83% |
| 16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment (11. + 13.) | 17.47% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|--|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 25.83% | 19.21% |
| b. Tier 1/Tier 2 UAL rate | (8.51%) | (4.89%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate <i>(a. + b. + c., minimum of 5.50%)</i> | 17.47% | 14.47% |

Data

Demographic Information

Employer Valuation Payroll

| | General Service | Police & Fire | Total |
|-----------------------------------|-----------------|------------------|------------------|
| Tier 1 | \$0 | \$92,265 | \$92,265 |
| Tier 2 | 0 | 350 | 350 |
| Tier 1/Tier 2 valuation payroll | 0 | 92,615 | 92,615 |
| OPSRP valuation payroll | 2,360 | 232,906 | 235,266 |
| Combined valuation payroll | \$2,360 | \$325,521 | \$327,881 |

Employer Member Census

| | December 31 | | | | | | | |
|--|-------------|-----------|-----------|-----------|-----------|-----------|----------|-----------|
| | 2014 | | | | 2013 | | | |
| | Tier 1 | Tier 2 | OPSRP | Total | Tier 1 | Tier 2 | OPSRP | Total |
| Active Members ¹ | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 |
| Police & Fire | 1 | 0 | 12 | 13 | 1 | 0 | 6 | 7 |
| Total | 1 | 0 | 12 | 13 | 1 | 0 | 8 | 9 |
| Active Members with previous service segments with the employer | | | | | | | | |
| General Service | 1 | 0 | N/A | 1 | 1 | 0 | N/A | 1 |
| Police & Fire | 8 | 15 | N/A | 23 | 9 | 14 | N/A | 23 |
| Total | 9 | 15 | N/A | 24 | 10 | 14 | N/A | 24 |
| Dormant Members | | | | | | | | |
| General Service | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Police & Fire | 0 | 6 | 2 | 8 | 0 | 6 | 0 | 6 |
| Total | 0 | 7 | 2 | 9 | 0 | 7 | 0 | 7 |
| Retired Members and Beneficiaries | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 5 | 0 | 0 | 5 | 3 | 0 | 0 | 3 |
| Total | 5 | 0 | 0 | 5 | 3 | 0 | 0 | 3 |
| Grand Total Number of Members | 15 | 22 | 14 | 51 | 14 | 21 | 8 | 43 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

| Age | Years of Service | | | | | | | | | Total |
|--------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| <20 | | | | | | | | | | |
| 20-24 | | | | | | | | | | |
| 25-29 | | | | | | | | | | |
| 30-34 | | | | | | | | | | |
| 35-39 | | | | | | | | | | |
| 40-44 | | | | | | | | | | |
| 45-49 | | | | | 1 | | | | | 1 |
| 50-54 | | | | | | | | | | |
| 55-59 | | | | | | | | | | |
| 60-64 | | | | | | | | | | |
| 65-69 | | | | | | | | | | |
| 70-74 | | | | | | | | | | |
| 75+ | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|----------|----------------------------------|-----------------------------------|----------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | 1 | 1 |
| 30-34 | | | 55-59 | 1 | 21 |
| 35-39 | 1 | 394 | 60-64 | 2 | 441 |
| 40-44 | 2 | 192 | 65-69 | | |
| 45-49 | | | 70-74 | 1 | 3,249 |
| 50-54 | 2 | 30 | 75-79 | | |
| 55-59 | 1 | 354 | 80-84 | | |
| 60-64 | 1 | 985 | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | 7 | 311 | Total | 5 | 830 |

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

| | |
|---|--|
| <i>Actuarial cost method</i> | Entry Age Normal. |
| <i>Amortization Method</i> | <p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.</p> |
| <i>Asset valuation method</i> | Market value of assets, excluding reserves. |
| <i>Contribution rate stabilization method (rate collar)</i> | <p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p> |

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

| | |
|--------------------------------------|--|
| <i>Net investment return</i> | 7.50% compounded annually on system assets. |
| <i>Interest crediting</i> | <p>7.50% compounded annually on members' regular account balances starting in 2015.</p> <p>7.50% compounded annually on members' variable account balances starting in 2015.</p> |
| <i>Consumer price inflation</i> | 2.50% per year. |
| <i>Future general wage inflation</i> | 3.50% per year. |
| <i>Healthcare cost inflation</i> | Ranging from 7.0% in 2015 to 4.4% in 2094. |
| <i>Administrative Expenses</i> | <p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p> |

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

Administrative expenses for the Tier 1/Tier 2 System are assumed to be \$33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called "funding method," a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

November 2015

Umatilla-Morrow Radio and Data District/2874
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.



November 2015

Umatilla-Morrow Radio and Data District/2874

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



November 2015
Umatilla-Morrow Radio and Data District/2874

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Umatilla-Morrow Radio and Data District -- #2874

November 2015

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Executive Summary

Milliman has prepared this report for Umatilla-Morrow Radio and Data District to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Umatilla-Morrow Radio and Data District.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Umatilla-Morrow Radio and Data District

| | Payroll | | |
|---|---------------|--------------------------|------------------------|
| | Tier 1/Tier 2 | OPSRP General Service | OPSRP Police & Fire |
| Pension | | | |
| Normal cost rate | 10.17% | 8.10% | 12.90% |
| Tier 1/Tier 2 UAL rate ¹ | 0.08% | 0.08% | 0.08% |
| OPSRP UAL rate | 1.01% | 1.01% | 1.01% |
| Side account rate relief | 0.00% | 0.00% | 0.00% |
| Net pension contribution rate | 11.26% | 9.19% | 13.99% |
| Retiree Healthcare | | | |
| Normal cost rate | 0.07% | 0.00% | 0.00% |
| UAL rate | 0.43% | 0.43% | 0.43% |
| Net retiree healthcare rate | 0.50% | 0.43% | 0.43% |
| Total net employer contribution rate | 11.76% | 9.62% | 14.42% |

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 103%.

| Funded Status as of December 31, 2015 | 70% to 130% | Under 60% or Over 140% |
|--|--------------------|-------------------------------|
| 2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate | 7.72% | 7.72% |
| Minimum 2017-2019 Rate | 4.72% | 1.72% |
| Maximum 2017-2019 Rate | 10.72% | 13.72% |

Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b - a) | Funded Ratio (a ÷ b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a) ÷ c) |
|--------------------------|-------------------------------|---------------------------------------|----------------------|----------------------|---------------------|---|
| 12/31/2009 | \$0 | \$0 | \$0 | 0% | \$0 | 0% |
| 12/31/2010 | 0 | 0 | 0 | 0% | 0 | 0% |
| 12/31/2011 | 0 | 493 | 493 | 0% | 64,245 | 1% |
| 12/31/2012 | 18,250 | 10,753 | (7,497) | 170% | 125,894 | (6%) |
| 12/31/2013 | 36,329 | 22,118 | (14,211) | 164% | 128,162 | (11%) |
| 12/31/2014 | 48,000 | 46,421 | (1,579) | 103% | 205,709 | (1%) |

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

| | Payroll | | |
|-------------------------------|-----------------|-----------------|---------------|
| | Tier 1 / Tier 2 | General Service | Police & Fire |
| July 1, 2013 to June 30, 2015 | 0.59% | 0.49% | 0.49% |
| July 1, 2015 to June 30, 2017 | 0.53% | 0.45% | 0.45% |

Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Umatilla-Morrow Radio and Data District

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| T1/T2 UAL | (\$1,579) | (\$14,211) |
| Allocated pooled OPSRP UAL | 23,517 | 9,062 |
| Side account | 0 | 0 |
| Net unfunded pension actuarial accrued liability | 21,938 | (5,149) |
| Combined valuation payroll | 205,709 | 128,162 |
| Net pension UAL as a percentage of payroll | 11% | (4%) |
| Calculated side account rate relief | 0.00% | 0.00% |
| Allocated pooled RHIA UAL | \$1,635 | \$1,774 |

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| Normal cost | \$20,923 | \$10,726 |
| Tier 1/Tier 2 valuation payroll | 205,709 | 128,162 |
| Tier 1/Tier 2 pension normal cost rate | 10.17% | 8.37% |
| Tier 1/ Tier 2 Actuarial accrued liability | \$46,421 | \$22,118 |
| Actuarial asset value | 48,000 | 36,329 |
| Tier 1/Tier 2 Unfunded actuarial accrued liability | (1,579) | (14,211) |
| Tier 1/ Tier 2 Funded status | 103% | 164% |
| Combined valuation payroll | \$205,709 | \$128,162 |
| Tier 1/Tier 2 UAL as a percentage of payroll | (1%) | (11%) |
| Tier 1/Tier 2 UAL rate | 0.08% | (0.65%) |
| (includes Multnomah Fire District #10) | | |
| Tier 1/Tier 2 active members ¹ | 3 | 2 |
| Tier 1/Tier 2 dormant members | 0 | 0 |
| Tier 1/Tier 2 retirees and beneficiaries | 0 | 0 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Executive Summary

Principal Valuation Results (continued)

OPSRP

| (\$ in millions) | Actuarial Valuation as of | |
|---|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| General service normal cost | \$301.3 | \$234.7 |
| OPSRP general service valuation payroll | 3,720.4 | 3,200.0 |
| General service normal cost rate | 8.10% | 7.33% |
| Police and fire normal cost | \$59.6 | \$45.5 |
| OPSRP police and fire valuation payroll | 462.3 | 398.1 |
| Police and fire normal cost rate | 12.90% | 11.44% |
| Actuarial accrued liability | \$3,064.1 | \$2,243.3 |
| Actuarial asset value | 2,024.6 | 1,630.2 |
| Unfunded actuarial accrued liability | 1,039.5 | 613.2 |
| Funded status | 66% | 73% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 11% | 7% |
| UAL rate | 1.01% | 0.61% |

Retiree Healthcare

| (\$ in millions) | Actuarial Valuation as of | |
|--------------------------------------|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| RHIA | | |
| Normal cost | \$3.5 | \$4.0 |
| Tier 1 / Tier 2 valuation payroll | 4,933.1 | 5,073.7 |
| Normal cost rate | 0.07% | 0.08% |
| Actuarial accrued liability | \$468.4 | \$473.6 |
| Actuarial asset value | 395.9 | 353.5 |
| Unfunded actuarial accrued liability | 72.5 | 120.0 |
| Funded status | 85% | 75% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 1% | 1% |
| UAL rate | 0.43% | 0.45% |

Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

| | New | Continuing | Total |
|---|------------|------------|-------|
| 1. Side account as of December 31, 2013 | N/A | | |
| 2. Deposits made during 2014 | | N/A | |
| 3. Administrative expenses | | | |
| 4. Amount transferred to employer reserves during 2014 | | | |
| 5. Side account earnings during 2014 | | | |
| 6. Side account as of December 31, 2014 (1. + 2. + 3. + 4. + 5.) | | | |

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Total side account | \$0 | \$0 |
| 2. Combined valuation payroll | 205,709 | 128,162 |
| 3. Amortization factor | 10.118 | 10.703 |
| 4. Total side account rate (-1. ÷ 2. ÷ 3.)¹ | 0.00% | 0.00% |

¹ For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.

Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Member reserves | \$0 | \$0 |
| 2. Employer reserves | 48,000 | 36,329 |
| 3. Benefits in force reserve | 0 | 0 |
| 4. Total market value of assets (1. + 2. + 3.) | \$48,000 | \$36,329 |

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

| | December 31, 2013 to December 31, 2014 |
|---|---|
| 1. Market value of assets at beginning of year | \$36,329 |
| 2. Regular employer contributions | 8,609 |
| 3. Benefit payments and expense | 0 |
| 4. Adjustments ¹ | (201) |
| 5. Interest credited | 3,262 |
| 6. Total transferred from side accounts | 0 |
| 7. Market value of assets at end of year (1. + 2. + 3. + 4. + 5. + 6.) | \$48,000 |

¹ Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|------------------------|-------------------|-------------------|
| Tier 1 Police & Fire | \$0 | \$0 |
| Tier 1 General Service | 0 | 0 |
| Tier 2 Police & Fire | 0 | 0 |
| Tier 2 General Service | 20,923 | 10,726 |
| Total | \$20,923 | \$10,726 |

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-------------|----------------|---------------|------------|
| Normal Cost | \$17,949 | \$20,923 | \$2,974 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| Active Members | | |
| ▪ Tier 1 Police & Fire | \$0 | \$0 |
| ▪ Tier 1 General Service | 0 | 0 |
| ▪ Tier 2 Police & Fire | 0 | 0 |
| ▪ Tier 2 General Service | 46,421 | 22,118 |
| ▪ Total Active Members | \$46,421 | \$22,118 |
| Dormant Members | 0 | 0 |
| Retired Members and Beneficiaries | 0 | 0 |
| Total Actuarial Accrued Liability | \$46,421 | \$22,118 |

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-----------------------------|-------------------|------------------|---------------|
| Actuarial Accrued Liability | \$39,522 | \$46,421 | \$6,899 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Actuarial accrued liability | \$46,421 | \$22,118 |
| 2. Actuarial value of assets | 48,000 | 36,329 |
| 3. Unfunded accrued liability (1. – 2.) | (1,579) | (14,211) |
| 4. Funded percentage (2. ÷ 1.) | 103% | 164% |
| 5. Combined valuation payroll | \$205,709 | \$128,162 |
| 6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.) | (1%) | (11%) |

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

| Amortization Base | UAL December 31, 2013 | Payment | Interest | UAL December 31, 2014 | Next Year's Payment |
|-------------------|--------------------------|-----------|-----------|--------------------------|------------------------|
| December 31, 2013 | (\$14,211) | (\$1,029) | (\$1,059) | (\$14,241) | (\$1,067) |
| December 31, 2014 | N/A | N/A | N/A | \$12,662 | \$916 |
| Total | | | | (\$1,579) | (\$151) |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

| | |
|--|------------------|
| 1. Expected actuarial accrued liability | |
| a. Actuarial accrued liability at December 31, 2013 | \$22,118 |
| b. Normal cost at December 31, 2013 | 10,726 |
| c. Benefit payments during 2014 | 0 |
| d. Interest at 7.75% to December 31, 2014 | 2,130 |
| e. Expected actuarial accrued liability before changes (a. + b. + c. + d.) | 34,974 |
| f. Change in actuarial accrued liability due to assumption, method, and plan changes | 6,899 |
| g. Expected actuarial accrued liability at December 31, 2014 (e. + f.) | 41,873 |
| 2. Actuarial accrued liability at December 31, 2014 | 46,421 |
| 3. Gain/(loss) on actuarial accrued liability (1.g. - 2.) | (4,548) |
| 4. Expected actuarial value of assets | |
| a. Actuarial value of assets at December 31, 2013 | 36,329 |
| b. Contributions for 2014 ¹ | 8,609 |
| c. Benefit payments and expenses during 2014 | 0 |
| d. Interest at 7.75% to December 31, 2014 | 3,149 |
| e. Expected actuarial value of assets at December 31, 2014 (a. + b. + c. + d.) | 48,088 |
| 5. Actuarial value of assets at December 31, 2014 | 48,000 |
| 6. Gain/(loss) on actuarial value of assets (5. - 4.e.) | (88) |
| 7. Total actuarial gain/(loss) (3. + 6.) | (\$4,636) |

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

| | |
|---|-------------------|
| 1. UAL at December 31, 2013 | (\$14,211) |
| 2. Expected increase | 1,097 |
| 3. Liability (gain)/loss | 4,548 |
| 4. Asset (gain)/loss | 88 |
| 5. Change due to changes in assumptions, methods, and plan provisions | 6,899 |
| 6. UAL at December 31, 2014 (1. + 2. + 3. + 4. + 5.) | (\$1,579) |

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

| | December 31, 2014 | | | December 31, 2013 | | |
|------------------------|-------------------|--|------------------|-------------------|--|------------------|
| | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate |
| Tier 1 Police & Fire | \$0 | \$0 | 0.00% | \$0 | \$0 | 0.00% |
| Tier 1 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 Police & Fire | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 General Service | 20,923 | 205,709 | 10.17% | 10,726 | 128,162 | 8.37% |
| Total | \$20,923 | \$205,709 | 10.17% | \$10,726 | \$128,162 | 8.37% |

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Total Tier 1/Tier 2 UAL | (\$1,579) | (\$14,211) |
| 2. Next year's Tier 1/Tier 2 UAL payment | (151) | (1,029) |
| 3. Combined valuation payroll | 205,709 | 128,162 |
| 4. Tier 1/Tier 2 UAL rate (2. ÷ 3.) | (0.07%) | (0.80%) |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|---|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 10.17% | 8.37% |
| b. Tier 1/Tier 2 UAL rate | (0.07%) | (0.80%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate (a. + b. + c.) | 10.25% | 7.72% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

| | |
|--|---------|
| 1. Current net Tier 1/Tier 2 pension contribution rate | 7.72% |
| 2. Employer contribution rate attributable to side accounts | 0.00% |
| 3. Current employer Tier 1/Tier 2 pension contribution rate (1. – 2.) | 7.72% |
| 4. Size of rate collar | |
| a. 20% of current employer contribution rate (20% x 3.) | 1.54% |
| b. Preliminary size of rate collar (maximum of 3% or a.) | 3.00% |
| c. Funded percentage | 103% |
| d. Size of rate collar (If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.) | 3.00% |
| 5. Advisory July 1, 2017 minimum employer contribution rate (3. – 4.d. but not < 0%) | 4.72% |
| 6. Advisory July 1, 2017 maximum employer contribution rate (3. + 4.d.) | 10.72% |
| 7. Advisory July 1, 2017 total pension rate, before adjustment | 10.25% |
| 8. Net adjustment due to rate collar (5. – 7., but not < 0, or 6. – 7., but not > 0) | 0.00% |
| 9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar | (0.07%) |
| 10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar (8. + 9.) | (0.07%) |
| 11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar | 10.25% |
| 12. Tier 1/Tier 2 retiree healthcare rate | 0.50% |
| 13. Net adjustment due to 6% minimum (6% - 11. - 12., minimum 0%) | 0.00% |
| 14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment | 10.17% |
| 15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment (13. + 14.) | 10.17% |
| 16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment (11. + 13.) | 10.25% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|--|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 10.17% | 8.37% |
| b. Tier 1/Tier 2 UAL rate | (0.07%) | (0.80%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate | 10.25% | 7.72% |
| <i>(a. + b. + c., minimum of 5.50%)</i> | | |

Data

Demographic Information

Employer Valuation Payroll

| | General Service | Police & Fire | Total |
|-----------------------------------|------------------|---------------|------------------|
| Tier 1 | \$0 | \$0 | \$0 |
| Tier 2 | 205,709 | 0 | 205,709 |
| Tier 1/Tier 2 valuation payroll | 205,709 | 0 | 205,709 |
| OPSRP valuation payroll | 0 | 0 | 0 |
| Combined valuation payroll | \$205,709 | \$0 | \$205,709 |

Employer Member Census

| | December 31 | | | | | | | |
|--|-------------|----------|----------|----------|----------|----------|----------|----------|
| | 2014 | | | | 2013 | | | |
| | Tier 1 | Tier 2 | OPSRP | Total | Tier 1 | Tier 2 | OPSRP | Total |
| Active Members ¹ | | | | | | | | |
| General Service | 0 | 3 | 0 | 3 | 0 | 2 | 0 | 2 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 3 | 0 | 3 | 0 | 2 | 0 | 2 |
| Active Members with previous service segments with the employer | | | | | | | | |
| General Service | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Police & Fire | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Total | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Dormant Members | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Retired Members and Beneficiaries | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total Number of Members | 0 | 3 | 0 | 3 | 0 | 2 | 0 | 2 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

| Age | Years of Service | | | | | | | | | Total |
|--------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| <20 | | | | | | | | | | |
| 20-24 | | | | | | | | | | |
| 25-29 | | | | | | | | | | |
| 30-34 | | | | | | | | | | |
| 35-39 | | | 1 | | | | | | | 1 |
| 40-44 | | | 1 | | | | | | | 1 |
| 45-49 | | | | | | | | | | |
| 50-54 | | | 1 | | | | | | | 1 |
| 55-59 | | | | | | | | | | |
| 60-64 | | | | | | | | | | |
| 65-69 | | | | | | | | | | |
| 70-74 | | | | | | | | | | |
| 75+ | | | | | | | | | | |
| Total | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|-------|----------------------------------|-----------------------------------|-------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | | |
| 35-39 | | | 60-64 | | |
| 40-44 | | | 65-69 | | |
| 45-49 | | | 70-74 | | |
| 50-54 | | | 75-79 | | |
| 55-59 | | | 80-84 | | |
| 60-64 | | | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | | | Total | | |

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

| | |
|---|--|
| <i>Actuarial cost method</i> | Entry Age Normal. |
| <i>Amortization Method</i> | <p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.</p> |
| <i>Asset valuation method</i> | Market value of assets, excluding reserves. |
| <i>Contribution rate stabilization method (rate collar)</i> | <p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p> |

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

| | |
|--------------------------------------|--|
| <i>Net investment return</i> | 7.50% compounded annually on system assets. |
| <i>Interest crediting</i> | <p>7.50% compounded annually on members' regular account balances starting in 2015.</p> <p>7.50% compounded annually on members' variable account balances starting in 2015.</p> |
| <i>Consumer price inflation</i> | 2.50% per year. |
| <i>Future general wage inflation</i> | 3.50% per year. |
| <i>Healthcare cost inflation</i> | Ranging from 7.0% in 2015 to 4.4% in 2094. |
| <i>Administrative Expenses</i> | <p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p> |

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

Administrative expenses for the Tier 1/Tier 2 System are assumed to be \$33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called "funding method," a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

November 2015

Valley View Cemetery/2536
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.



November 2015
Valley View Cemetery/2536

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



November 2015
Valley View Cemetery/2536

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Valley View Cemetery -- #2536

November 2015

This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

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Executive Summary

Milliman has prepared this report for Valley View Cemetery to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Valley View Cemetery.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Valley View Cemetery

| | Payroll | | |
|---|---------------|-----------------|---------------|
| | Tier 1/Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| Pension | | | |
| Normal cost rate | 22.43% | 8.10% | 12.90% |
| Tier 1/Tier 2 UAL rate ¹ | (16.93%) | (16.93%) | (16.93%) |
| OPSRP UAL rate | 1.01% | 1.01% | 1.01% |
| Side account rate relief | 0.00% | 0.00% | 0.00% |
| Net pension contribution rate | 6.51% | 0.00% | 0.00% |
| Retiree Healthcare | | | |
| Normal cost rate | 0.07% | 0.00% | 0.00% |
| UAL rate | 0.43% | 0.43% | 0.43% |
| Net retiree healthcare rate | 0.50% | 0.43% | 0.43% |
| Total net employer contribution rate | 7.01% | 0.43% | 0.43% |

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 1156%.

| Funded Status as of December 31, 2015 | 70% to 130% | Under 60% or Over 140% |
|--|--------------------|-------------------------------|
| 2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate | 5.47% | 5.47% |
| Minimum 2017-2019 Rate | 2.47% | 0.00% |
| Maximum 2017-2019 Rate | 8.47% | 11.47% |

Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b - a) | Funded Ratio (a ÷ b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a) ÷ c) |
|--------------------------|-------------------------------|---------------------------------------|----------------------|----------------------|---------------------|---|
| 12/31/2009 | \$77,911 | \$8,018 | (\$69,893) | 972% | \$16,000 | (437%) |
| 12/31/2010 | 87,303 | 8,851 | (78,452) | 986% | 18,935 | (414%) |
| 12/31/2011 | 88,943 | 9,444 | (79,499) | 942% | 39,559 | (201%) |
| 12/31/2012 | 101,364 | 7,927 | (93,437) | 1279% | 33,825 | (276%) |
| 12/31/2013 | 116,935 | 8,598 | (108,337) | 1360% | 38,133 | (284%) |
| 12/31/2014 | 125,081 | 10,818 | (114,263) | 1156% | 43,622 | (262%) |

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

| | Payroll | | |
|-------------------------------|-----------------|-----------------|---------------|
| | Tier 1 / Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| July 1, 2013 to June 30, 2015 | 0.59% | 0.49% | 0.49% |
| July 1, 2015 to June 30, 2017 | 0.53% | 0.45% | 0.45% |

Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Valley View Cemetery

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| T1/T2 UAL | (\$114,263) | (\$108,337) |
| Allocated pooled OPSRP UAL | 4,987 | 2,696 |
| Side account | 0 | 0 |
| Net unfunded pension actuarial accrued liability | (109,276) | (105,641) |
| Combined valuation payroll | 43,622 | 38,133 |
| Net pension UAL as a percentage of payroll | (251%) | (277%) |
| Calculated side account rate relief | 0.00% | 0.00% |
| Allocated pooled RHIA UAL | \$347 | \$528 |

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| Normal cost | \$950 | \$714 |
| Tier 1/Tier 2 valuation payroll | 5,611 | 4,678 |
| Tier 1/Tier 2 pension normal cost rate | 22.43% | 20.73% |
| Tier 1/ Tier 2 Actuarial accrued liability | \$10,818 | \$8,598 |
| Actuarial asset value | 125,081 | 116,935 |
| Tier 1/Tier 2 Unfunded actuarial accrued liability | (114,263) | (108,337) |
| Tier 1/ Tier 2 Funded status | 1156% | 1360% |
| Combined valuation payroll | \$43,622 | \$38,133 |
| Tier 1/Tier 2 UAL as a percentage of payroll | (262%) | (284%) |
| Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10) | (16.93%) | (15.26%) |
| Tier 1/Tier 2 active members ¹ | 0 | 0 |
| Tier 1/Tier 2 dormant members | 0 | 0 |
| Tier 1/Tier 2 retirees and beneficiaries | 1 | 1 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Executive Summary

Principal Valuation Results (continued)

OPSRP

| (\$ in millions) | Actuarial Valuation as of | |
|---|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| General service normal cost | \$301.3 | \$234.7 |
| OPSRP general service valuation payroll | 3,720.4 | 3,200.0 |
| General service normal cost rate | 8.10% | 7.33% |
| Police and fire normal cost | \$59.6 | \$45.5 |
| OPSRP police and fire valuation payroll | 462.3 | 398.1 |
| Police and fire normal cost rate | 12.90% | 11.44% |
| Actuarial accrued liability | \$3,064.1 | \$2,243.3 |
| Actuarial asset value | 2,024.6 | 1,630.2 |
| Unfunded actuarial accrued liability | 1,039.5 | 613.2 |
| Funded status | 66% | 73% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 11% | 7% |
| UAL rate | 1.01% | 0.61% |

Retiree Healthcare

| (\$ in millions) | Actuarial Valuation as of | |
|--------------------------------------|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| RHIA | | |
| Normal cost | \$3.5 | \$4.0 |
| Tier 1 / Tier 2 valuation payroll | 4,933.1 | 5,073.7 |
| Normal cost rate | 0.07% | 0.08% |
| Actuarial accrued liability | \$468.4 | \$473.6 |
| Actuarial asset value | 395.9 | 353.5 |
| Unfunded actuarial accrued liability | 72.5 | 120.0 |
| Funded status | 85% | 75% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 1% | 1% |
| UAL rate | 0.43% | 0.45% |

Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

| | New | Continuing | Total |
|---|------------|------------|-------|
| 1. Side account as of December 31, 2013 | N/A | | |
| 2. Deposits made during 2014 | | N/A | |
| 3. Administrative expenses | | | |
| 4. Amount transferred to employer reserves during 2014 | | | |
| 5. Side account earnings during 2014 | | | |
| 6. Side account as of December 31, 2014 (1. + 2. + 3. + 4. + 5.) | | | |

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Total side account | \$0 | \$0 |
| 2. Combined valuation payroll | 43,622 | 38,133 |
| 3. Amortization factor | 10.118 | 10.703 |
| 4. Total side account rate (-1. ÷ 2. ÷ 3.)¹ | 0.00% | 0.00% |

¹ For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.

Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Member reserves | \$0 | \$0 |
| 2. Employer reserves | 121,007 | 112,577 |
| 3. Benefits in force reserve | 4,074 | 4,358 |
| 4. Total market value of assets (1. + 2. + 3.) | \$125,081 | \$116,935 |

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

| | December 31, 2013 to December 31, 2014 |
|---|---|
| 1. Market value of assets at beginning of year | \$116,935 |
| 2. Regular employer contributions | 269 |
| 3. Benefit payments and expense | (673) |
| 4. Adjustments ¹ | 108 |
| 5. Interest credited | 8,442 |
| 6. Total transferred from side accounts | 0 |
| 7. Market value of assets at end of year (1. + 2. + 3. + 4. + 5. + 6.) | \$125,081 |

¹ Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|------------------------|-------------------|-------------------|
| Tier 1 Police & Fire | \$0 | \$0 |
| Tier 1 General Service | 950 | 714 |
| Tier 2 Police & Fire | 0 | 0 |
| Tier 2 General Service | 0 | 0 |
| Total | \$950 | \$714 |

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-------------|----------------|---------------|------------|
| Normal Cost | \$797 | \$950 | \$153 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| Active Members | | |
| ▪ Tier 1 Police & Fire | \$0 | \$0 |
| ▪ Tier 1 General Service | 2,913 | 1,573 |
| ▪ Tier 2 Police & Fire | 0 | 0 |
| ▪ Tier 2 General Service | 0 | 0 |
| ▪ Total Active Members | \$2,913 | \$1,573 |
| Dormant Members | 0 | 0 |
| Retired Members and Beneficiaries | 7,905 | 7,025 |
| Total Actuarial Accrued Liability | \$10,818 | \$8,598 |

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-----------------------------|----------------|---------------|------------|
| Actuarial Accrued Liability | \$9,409 | \$10,818 | \$1,409 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Actuarial accrued liability | \$10,818 | \$8,598 |
| 2. Actuarial value of assets | 125,081 | 116,935 |
| 3. Unfunded accrued liability (1. – 2.) | (114,263) | (108,337) |
| 4. Funded percentage (2. ÷ 1.) | 1156% | 1360% |
| 5. Combined valuation payroll | \$43,622 | \$38,133 |
| 6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.) | (262%) | (284%) |

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

| Amortization Base | UAL December 31, 2013 | Payment | Interest | UAL December 31, 2014 | Next Year's Payment |
|-------------------|--------------------------|-----------|-----------|--------------------------|------------------------|
| December 31, 2013 | (\$108,337) | (\$7,841) | (\$8,073) | (\$108,569) | (\$8,133) |
| December 31, 2014 | N/A | N/A | N/A | (\$5,694) | (\$412) |
| Total | | | | (\$114,263) | (\$8,545) |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

| | |
|--|----------------|
| 1. Expected actuarial accrued liability | |
| a. Actuarial accrued liability at December 31, 2013 | \$8,598 |
| b. Normal cost at December 31, 2013 | 714 |
| c. Benefit payments during 2014 | (668) |
| d. Interest at 7.75% to December 31, 2014 | 668 |
| e. Expected actuarial accrued liability before changes (a. + b. + c. + d.) | 9,312 |
| f. Change in actuarial accrued liability due to assumption, method, and plan changes | 1,409 |
| g. Expected actuarial accrued liability at December 31, 2014 (e. + f.) | 10,721 |
| 2. Actuarial accrued liability at December 31, 2014 | 10,818 |
| 3. Gain/(loss) on actuarial accrued liability (1.g. - 2.) | (97) |
| 4. Expected actuarial value of assets | |
| a. Actuarial value of assets at December 31, 2013 | 116,935 |
| b. Contributions for 2014 ¹ | 269 |
| c. Benefit payments and expenses during 2014 | (673) |
| d. Interest at 7.75% to December 31, 2014 | 9,047 |
| e. Expected actuarial value of assets at December 31, 2014 (a. + b. + c. + d.) | 125,578 |
| 5. Actuarial value of assets at December 31, 2014 | 125,081 |
| 6. Gain/(loss) on actuarial value of assets (5. - 4.e.) | (497) |
| 7. Total actuarial gain/(loss) (3. + 6.) | (\$594) |

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

| | |
|---|--------------------|
| 1. UAL at December 31, 2013 | (\$108,337) |
| 2. Expected increase | (7,929) |
| 3. Liability (gain)/loss | 97 |
| 4. Asset (gain)/loss | 497 |
| 5. Change due to changes in assumptions, methods, and plan provisions | 1,409 |
| 6. UAL at December 31, 2014 (1. + 2. + 3. + 4. + 5.) | (\$114,263) |

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

| | December 31, 2014 | | | December 31, 2013 | | |
|------------------------|-------------------|--|------------------|-------------------|--|------------------|
| | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate |
| Tier 1 Police & Fire | \$0 | \$0 | 0.00% | \$0 | \$0 | 0.00% |
| Tier 1 General Service | 950 | 5,611 | 16.93% | 714 | 4,678 | 15.26% |
| Tier 2 Police & Fire | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Total | \$950 | \$5,611 | 16.93% | \$714 | \$4,678 | 15.26% |

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Total Tier 1/Tier 2 UAL | (\$114,263) | (\$108,337) |
| 2. Next year's Tier 1/Tier 2 UAL payment | (8,545) | (7,841) |
| 3. Combined valuation payroll | 43,622 | 38,133 |
| 4. Tier 1/Tier 2 UAL rate (2. ÷ 3.) | (19.59%) | (20.56%) |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|---|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 16.93% | 15.26% |
| b. Tier 1/Tier 2 UAL rate | (19.59%) | (20.56%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate (a. + b. + c.) | (2.51%) | (5.15%) |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

| | |
|--|----------|
| 1. Current net Tier 1/Tier 2 pension contribution rate | 5.47% |
| 2. Employer contribution rate attributable to side accounts | 0.00% |
| 3. Current employer Tier 1/Tier 2 pension contribution rate (1. – 2.) | 5.47% |
| 4. Size of rate collar | |
| a. 20% of current employer contribution rate (20% x 3.) | 1.09% |
| b. Preliminary size of rate collar (maximum of 3% or a.) | 3.00% |
| c. Funded percentage | 1156% |
| d. Size of rate collar (If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.) | 6.00% |
| 5. Advisory July 1, 2017 minimum employer contribution rate (3. – 4.d. but not < 0%) | 0.00% |
| 6. Advisory July 1, 2017 maximum employer contribution rate (3. + 4.d.) | 11.47% |
| 7. Advisory July 1, 2017 total pension rate, before adjustment | (2.51%) |
| 8. Net adjustment due to rate collar (5. – 7., but not < 0, or 6. – 7., but not > 0) | 2.51% |
| 9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar | (19.59%) |
| 10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar (8. + 9.) | (17.08%) |
| 11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar | 0.00% |
| 12. Tier 1/Tier 2 retiree healthcare rate | 0.50% |
| 13. Net adjustment due to 6% minimum (6% - 11. - 12., minimum 0%) | 5.50% |
| 14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment | 16.93% |
| 15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment (13. + 14.) | 22.43% |
| 16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment (11. + 13.) | 5.50% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|--|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 22.43% | 20.73% |
| b. Tier 1/Tier 2 UAL rate | (17.08%) | (15.41%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate | 5.50% | 5.47% |
| <i>(a. + b. + c., minimum of 5.50%)</i> | | |

Data

Demographic Information

Employer Valuation Payroll

| | General Service | Police & Fire | Total |
|-----------------------------------|-----------------|---------------|-----------------|
| Tier 1 | \$5,611 | \$0 | \$5,611 |
| Tier 2 | 0 | 0 | 0 |
| Tier 1/Tier 2 valuation payroll | 5,611 | 0 | 5,611 |
| OPSRP valuation payroll | 38,011 | 0 | 38,011 |
| Combined valuation payroll | \$43,622 | \$0 | \$43,622 |

Employer Member Census

| | December 31 | | | | | | | |
|--|-------------|----------|----------|----------|----------|----------|----------|----------|
| | 2014 | | | | 2013 | | | |
| | Tier 1 | Tier 2 | OPSRP | Total | Tier 1 | Tier 2 | OPSRP | Total |
| Active Members ¹ | | | | | | | | |
| General Service | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 2 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 2 |
| Active Members with previous service segments with the employer | | | | | | | | |
| General Service | 1 | 0 | N/A | 1 | 1 | 0 | N/A | 1 |
| Police & Fire | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Total | 1 | 0 | N/A | 1 | 1 | 0 | N/A | 1 |
| Dormant Members | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Retired Members and Beneficiaries | | | | | | | | |
| General Service | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
| Grand Total Number of Members | 2 | 0 | 2 | 4 | 2 | 0 | 2 | 4 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

| Age | Years of Service | | | | | | | | | Total |
|--------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| <20 | | | | | | | | | | |
| 20-24 | | | | | | | | | | |
| 25-29 | | | | | | | | | | |
| 30-34 | | | | | | | | | | |
| 35-39 | | | | | | | | | | |
| 40-44 | | | | | | | | | | |
| 45-49 | | | | | | | | | | |
| 50-54 | | | | | | | | | | |
| 55-59 | | | | | | | | | | |
| 60-64 | | | | | | | | | | |
| 65-69 | | | | | | | | | | |
| 70-74 | | | | | | | | | | |
| 75+ | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|-------|----------------------------------|-----------------------------------|----------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | | |
| 35-39 | | | 60-64 | | |
| 40-44 | | | 65-69 | | |
| 45-49 | | | 70-74 | | |
| 50-54 | | | 75-79 | | |
| 55-59 | | | 80-84 | 1 | 52 |
| 60-64 | | | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | | | Total | 1 | 52 |

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

| | |
|---|--|
| <i>Actuarial cost method</i> | Entry Age Normal. |
| <i>Amortization Method</i> | <p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.</p> |
| <i>Asset valuation method</i> | Market value of assets, excluding reserves. |
| <i>Contribution rate stabilization method (rate collar)</i> | <p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p> |

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

| | |
|--------------------------------------|--|
| <i>Net investment return</i> | 7.50% compounded annually on system assets. |
| <i>Interest crediting</i> | <p>7.50% compounded annually on members' regular account balances starting in 2015.</p> <p>7.50% compounded annually on members' variable account balances starting in 2015.</p> |
| <i>Consumer price inflation</i> | 2.50% per year. |
| <i>Future general wage inflation</i> | 3.50% per year. |
| <i>Healthcare cost inflation</i> | Ranging from 7.0% in 2015 to 4.4% in 2094. |
| <i>Administrative Expenses</i> | <p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p> |

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

Administrative expenses for the Tier 1/Tier 2 System are assumed to be \$33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

November 2015

Vernonia Fire/2797
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.



November 2015
Vernonia Fire/2797

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



November 2015
Vernonia Fire/2797

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Vernonia Fire -- #2797

November 2015

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Executive Summary

Milliman has prepared this report for Vernonia Fire to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Vernonia Fire.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Vernonia Fire

| | Payroll | | |
|---|---------------|-----------------|---------------|
| | Tier 1/Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| Pension | | | |
| Normal cost rate | 10.80% | 8.10% | 12.90% |
| Tier 1/Tier 2 UAL rate ¹ | (2.33%) | (2.33%) | (2.33%) |
| OPSRP UAL rate | 1.01% | 1.01% | 1.01% |
| Side account rate relief | 0.00% | 0.00% | 0.00% |
| Net pension contribution rate | 9.48% | 6.78% | 11.58% |
| Retiree Healthcare | | | |
| Normal cost rate | 0.07% | 0.00% | 0.00% |
| UAL rate | 0.43% | 0.43% | 0.43% |
| Net retiree healthcare rate | 0.50% | 0.43% | 0.43% |
| Total net employer contribution rate | 9.98% | 7.21% | 12.01% |

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 109%.

| Funded Status as of December 31, 2015 | 70% to 130% | Under 60% or Over 140% |
|--|--------------------|-------------------------------|
| 2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate | 5.47% | 5.47% |
| Minimum 2017-2019 Rate | 2.47% | 0.00% |
| Maximum 2017-2019 Rate | 8.47% | 11.47% |

Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b - a) | Funded Ratio (a ÷ b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a) ÷ c) |
|--------------------------|-------------------------------|---------------------------------------|----------------------|----------------------|---------------------|---|
| 12/31/2009 | \$216,962 | \$163,620 | (\$53,342) | 133% | \$68,210 | (78%) |
| 12/31/2010 | 237,730 | 179,180 | (58,550) | 133% | 63,952 | (92%) |
| 12/31/2011 | 202,377 | 193,402 | (8,975) | 105% | 95,536 | (9%) |
| 12/31/2012 | 222,028 | 192,073 | (29,955) | 116% | 68,647 | (44%) |
| 12/31/2013 | 246,059 | 200,102 | (45,957) | 123% | 76,009 | (60%) |
| 12/31/2014 | 253,297 | 232,832 | (20,465) | 109% | 80,963 | (25%) |

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

| | Payroll | | |
|-------------------------------|-----------------|-----------------|---------------|
| | Tier 1 / Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| July 1, 2013 to June 30, 2015 | 0.59% | 0.49% | 0.49% |
| July 1, 2015 to June 30, 2017 | 0.53% | 0.45% | 0.45% |

Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Vernonia Fire

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| T1/T2 UAL | (\$20,465) | (\$45,957) |
| Allocated pooled OPSRP UAL | 9,256 | 5,374 |
| Side account | 0 | 0 |
| Net unfunded pension actuarial accrued liability | (11,209) | (40,583) |
| Combined valuation payroll | 80,963 | 76,009 |
| Net pension UAL as a percentage of payroll | (14%) | (53%) |
| Calculated side account rate relief | 0.00% | 0.00% |
| Allocated pooled RHIA UAL | \$644 | \$1,052 |

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| Normal cost | \$2,240 | \$1,810 |
| Tier 1/Tier 2 valuation payroll | 20,743 | 19,792 |
| Tier 1/Tier 2 pension normal cost rate | 10.80% | 9.70% |
| Tier 1/ Tier 2 Actuarial accrued liability | \$232,832 | \$200,102 |
| Actuarial asset value | 253,297 | 246,059 |
| Tier 1/Tier 2 Unfunded actuarial accrued liability | (20,465) | (45,957) |
| Tier 1/ Tier 2 Funded status | 109% | 123% |
| Combined valuation payroll | \$80,963 | \$76,009 |
| Tier 1/Tier 2 UAL as a percentage of payroll | (25%) | (60%) |
| Tier 1/Tier 2 UAL rate | (2.33%) | (4.23%) |
| (includes Multnomah Fire District #10) | | |
| Tier 1/Tier 2 active members ¹ | 1 | 1 |
| Tier 1/Tier 2 dormant members | 1 | 1 |
| Tier 1/Tier 2 retirees and beneficiaries | 1 | 1 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Executive Summary

Principal Valuation Results (continued)

OPSRP

| (\$ in millions) | Actuarial Valuation as of | |
|---|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| General service normal cost | \$301.3 | \$234.7 |
| OPSRP general service valuation payroll | 3,720.4 | 3,200.0 |
| General service normal cost rate | 8.10% | 7.33% |
| Police and fire normal cost | \$59.6 | \$45.5 |
| OPSRP police and fire valuation payroll | 462.3 | 398.1 |
| Police and fire normal cost rate | 12.90% | 11.44% |
| Actuarial accrued liability | \$3,064.1 | \$2,243.3 |
| Actuarial asset value | 2,024.6 | 1,630.2 |
| Unfunded actuarial accrued liability | 1,039.5 | 613.2 |
| Funded status | 66% | 73% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 11% | 7% |
| UAL rate | 1.01% | 0.61% |

Retiree Healthcare

| (\$ in millions) | Actuarial Valuation as of | |
|--------------------------------------|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| RHIA | | |
| Normal cost | \$3.5 | \$4.0 |
| Tier 1 / Tier 2 valuation payroll | 4,933.1 | 5,073.7 |
| Normal cost rate | 0.07% | 0.08% |
| Actuarial accrued liability | \$468.4 | \$473.6 |
| Actuarial asset value | 395.9 | 353.5 |
| Unfunded actuarial accrued liability | 72.5 | 120.0 |
| Funded status | 85% | 75% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 1% | 1% |
| UAL rate | 0.43% | 0.45% |

Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

| | New | Continuing | Total |
|---|------------|------------|-------|
| 1. Side account as of December 31, 2013 | N/A | | |
| 2. Deposits made during 2014 | | N/A | |
| 3. Administrative expenses | | | |
| 4. Amount transferred to employer reserves during 2014 | | | |
| 5. Side account earnings during 2014 | | | |
| 6. Side account as of December 31, 2014 (1. + 2. + 3. + 4. + 5.) | | | |

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Total side account | \$0 | \$0 |
| 2. Combined valuation payroll | 80,963 | 76,009 |
| 3. Amortization factor | 10.118 | 10.703 |
| 4. Total side account rate (-1. ÷ 2. ÷ 3.)¹ | 0.00% | 0.00% |

¹ For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.

Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Member reserves | \$16,876 | \$15,726 |
| 2. Employer reserves | 153,900 | 142,818 |
| 3. Benefits in force reserve | 82,521 | 87,515 |
| 4. Total market value of assets (1. + 2. + 3.) | \$253,297 | \$246,059 |

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

| | December 31, 2013 to December 31, 2014 |
|---|---|
| 1. Market value of assets at beginning of year | \$246,059 |
| 2. Regular employer contributions | 730 |
| 3. Benefit payments and expense | (13,629) |
| 4. Adjustments ¹ | 2,948 |
| 5. Interest credited | 17,190 |
| 6. Total transferred from side accounts | 0 |
| 7. Market value of assets at end of year (1. + 2. + 3. + 4. + 5. + 6.) | \$253,297 |

¹ Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|------------------------|-------------------|-------------------|
| Tier 1 Police & Fire | \$0 | \$0 |
| Tier 1 General Service | 0 | 0 |
| Tier 2 Police & Fire | 0 | 0 |
| Tier 2 General Service | 2,240 | 1,810 |
| Total | \$2,240 | \$1,810 |

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-------------|-------------------|------------------|---------------|
| Normal Cost | \$1,896 | \$2,240 | \$344 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| Active Members | | |
| ▪ Tier 1 Police & Fire | \$0 | \$0 |
| ▪ Tier 1 General Service | 0 | 0 |
| ▪ Tier 2 Police & Fire | 0 | 0 |
| ▪ Tier 2 General Service | 33,552 | 25,894 |
| ▪ Total Active Members | \$33,552 | \$25,894 |
| Dormant Members | 39,191 | 33,137 |
| Retired Members and Beneficiaries | 160,089 | 141,071 |
| Total Actuarial Accrued Liability | \$232,832 | \$200,102 |

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-----------------------------|-------------------|------------------|---------------|
| Actuarial Accrued Liability | \$206,805 | \$232,832 | \$26,027 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Actuarial accrued liability | \$232,832 | \$200,102 |
| 2. Actuarial value of assets | 253,297 | 246,059 |
| 3. Unfunded accrued liability (1. – 2.) | (20,465) | (45,957) |
| 4. Funded percentage (2. ÷ 1.) | 109% | 123% |
| 5. Combined valuation payroll | \$80,963 | \$76,009 |
| 6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.) | (25%) | (60%) |

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

| Amortization Base | UAL December 31, 2013 | Payment | Interest | UAL December 31, 2014 | Next Year's Payment |
|-------------------|--------------------------|-----------|-----------|--------------------------|------------------------|
| December 31, 2013 | (\$45,957) | (\$3,326) | (\$3,424) | (\$46,055) | (\$3,450) |
| December 31, 2014 | N/A | N/A | N/A | \$25,590 | \$1,852 |
| Total | | | | (\$20,465) | (\$1,598) |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

| | |
|--|------------------|
| 1. Expected actuarial accrued liability | |
| a. Actuarial accrued liability at December 31, 2013 | \$200,102 |
| b. Normal cost at December 31, 2013 | 1,810 |
| c. Benefit payments during 2014 | (13,524) |
| d. Interest at 7.75% to December 31, 2014 | 15,054 |
| e. Expected actuarial accrued liability before changes (a. + b. + c. + d.) | 203,442 |
| f. Change in actuarial accrued liability due to assumption, method, and plan changes | 26,027 |
| g. Expected actuarial accrued liability at December 31, 2014 (e. + f.) | 229,469 |
| 2. Actuarial accrued liability at December 31, 2014 | 232,832 |
| 3. Gain/(loss) on actuarial accrued liability (1.g. - 2.) | (3,363) |
| 4. Expected actuarial value of assets | |
| a. Actuarial value of assets at December 31, 2013 | 246,059 |
| b. Contributions for 2014 ¹ | 730 |
| c. Benefit payments and expenses during 2014 | (13,629) |
| d. Interest at 7.75% to December 31, 2014 | 18,570 |
| e. Expected actuarial value of assets at December 31, 2014 (a. + b. + c. + d.) | 251,729 |
| 5. Actuarial value of assets at December 31, 2014 | 253,297 |
| 6. Gain/(loss) on actuarial value of assets (5. - 4.e.) | 1,568 |
| 7. Total actuarial gain/(loss) (3. + 6.) | (\$1,795) |

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

| | |
|---|-------------------|
| 1. UAL at December 31, 2013 | (\$45,957) |
| 2. Expected increase | (2,330) |
| 3. Liability (gain)/loss | 3,363 |
| 4. Asset (gain)/loss | (1,568) |
| 5. Change due to changes in assumptions, methods, and plan provisions | 26,027 |
| 6. UAL at December 31, 2014 (1. + 2. + 3. + 4. + 5.) | (\$20,465) |

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

| | December 31, 2014 | | | December 31, 2013 | | |
|------------------------|-------------------|---|------------------------|-------------------|---|------------------------|
| | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate |
| Tier 1 Police & Fire | \$0 | \$0 | 0.00% | \$0 | \$0 | 0.00% |
| Tier 1 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 Police & Fire | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 General Service | 2,240 | 20,743 | 10.80% | 1,810 | 19,792 | 9.15% |
| Total | \$2,240 | \$20,743 | 10.80% | \$1,810 | \$19,792 | 9.15% |

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Total Tier 1/Tier 2 UAL | (\$20,465) | (\$45,957) |
| 2. Next year's Tier 1/Tier 2 UAL payment | (1,598) | (3,326) |
| 3. Combined valuation payroll | 80,963 | 76,009 |
| 4. Tier 1/Tier 2 UAL rate (2. ÷ 3.) | (1.97%) | (4.38%) |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|---|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 10.80% | 9.15% |
| b. Tier 1/Tier 2 UAL rate | (1.97%) | (4.38%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate (a. + b. + c.) | 8.98% | 4.92% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

| | |
|--|---------|
| 1. Current net Tier 1/Tier 2 pension contribution rate | 5.47% |
| 2. Employer contribution rate attributable to side accounts | 0.00% |
| 3. Current employer Tier 1/Tier 2 pension contribution rate (1. – 2.) | 5.47% |
| 4. Size of rate collar | |
| a. 20% of current employer contribution rate (20% x 3.) | 1.09% |
| b. Preliminary size of rate collar (maximum of 3% or a.) | 3.00% |
| c. Funded percentage | 109% |
| d. Size of rate collar (If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.) | 3.00% |
| 5. Advisory July 1, 2017 minimum employer contribution rate (3. – 4.d. but not < 0%) | 2.47% |
| 6. Advisory July 1, 2017 maximum employer contribution rate (3. + 4.d.) | 8.47% |
| 7. Advisory July 1, 2017 total pension rate, before adjustment | 8.98% |
| 8. Net adjustment due to rate collar (5. – 7., but not < 0, or 6. – 7., but not > 0) | (0.51%) |
| 9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar | (1.97%) |
| 10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar (8. + 9.) | (2.48%) |
| 11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar | 8.47% |
| 12. Tier 1/Tier 2 retiree healthcare rate | 0.50% |
| 13. Net adjustment due to 6% minimum (6% - 11. - 12., minimum 0%) | 0.00% |
| 14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment | 10.80% |
| 15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment (13. + 14.) | 10.80% |
| 16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment (11. + 13.) | 8.47% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|--|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 10.80% | 9.70% |
| b. Tier 1/Tier 2 UAL rate | (2.48%) | (4.38%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate <i>(a. + b. + c., minimum of 5.50%)</i> | 8.47% | 5.47% |

Data

Demographic Information

Employer Valuation Payroll

| | General Service | Police & Fire | Total |
|-----------------------------------|-----------------|-----------------|-----------------|
| Tier 1 | \$0 | \$0 | \$0 |
| Tier 2 | 20,743 | 0 | 20,743 |
| Tier 1/Tier 2 valuation payroll | 20,743 | 0 | 20,743 |
| OPSRP valuation payroll | 0 | 60,220 | 60,220 |
| Combined valuation payroll | \$20,743 | \$60,220 | \$80,963 |

Employer Member Census

| | December 31 | | | | | | | |
|--|-------------|----------|----------|----------|----------|----------|----------|----------|
| | 2014 | | | | 2013 | | | |
| | Tier 1 | Tier 2 | OPSRP | Total | Tier 1 | Tier 2 | OPSRP | Total |
| Active Members ¹ | | | | | | | | |
| General Service | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Police & Fire | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| Total | 0 | 1 | 1 | 2 | 0 | 1 | 1 | 2 |
| Active Members with previous service segments with the employer | | | | | | | | |
| General Service | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Police & Fire | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Total | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Dormant Members | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
| Total | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
| Retired Members and Beneficiaries | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Total | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| Grand Total Number of Members | 1 | 2 | 1 | 4 | 1 | 2 | 1 | 4 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

| Age | Years of Service | | | | | | | | | Total |
|--------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| <20 | | | | | | | | | | |
| 20-24 | | | | | | | | | | |
| 25-29 | | | | | | | | | | |
| 30-34 | | | | | | | | | | |
| 35-39 | | | | | | | | | | |
| 40-44 | | | 1 | | | | | | | 1 |
| 45-49 | | | | | | | | | | |
| 50-54 | | | | | | | | | | |
| 55-59 | | | | | | | | | | |
| 60-64 | | | | | | | | | | |
| 65-69 | | | | | | | | | | |
| 70-74 | | | | | | | | | | |
| 75+ | | | | | | | | | | |
| Total | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|----------|----------------------------------|-----------------------------------|----------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | 1 | 947 |
| 35-39 | | | 60-64 | | |
| 40-44 | | | 65-69 | | |
| 45-49 | | | 70-74 | | |
| 50-54 | | | 75-79 | | |
| 55-59 | 1 | 226 | 80-84 | | |
| 60-64 | | | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | 1 | 226 | Total | 1 | 947 |

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

| | |
|---|--|
| <i>Actuarial cost method</i> | Entry Age Normal. |
| <i>Amortization Method</i> | <p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.</p> |
| <i>Asset valuation method</i> | Market value of assets, excluding reserves. |
| <i>Contribution rate stabilization method (rate collar)</i> | <p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p> |

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

| | |
|--------------------------------------|--|
| <i>Net investment return</i> | 7.50% compounded annually on system assets. |
| <i>Interest crediting</i> | <p>7.50% compounded annually on members' regular account balances starting in 2015.</p> <p>7.50% compounded annually on members' variable account balances starting in 2015.</p> |
| <i>Consumer price inflation</i> | 2.50% per year. |
| <i>Future general wage inflation</i> | 3.50% per year. |
| <i>Healthcare cost inflation</i> | Ranging from 7.0% in 2015 to 4.4% in 2094. |
| <i>Administrative Expenses</i> | <p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p> |

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

Administrative expenses for the Tier 1/Tier 2 System are assumed to be \$33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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November 2015

Wallowa County/2050
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.



November 2015
Wallowa County/2050

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



November 2015
Wallowa County/2050

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Wallowa County -- #2050

November 2015

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Executive Summary

Milliman has prepared this report for Wallowa County to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Wallowa County.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Wallowa County

| | Payroll | | |
|---|---------------|-----------------|---------------|
| | Tier 1/Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| Pension | | | |
| Normal cost rate | 18.72% | 8.10% | 12.90% |
| Tier 1/Tier 2 UAL rate ¹ | (9.20%) | (9.20%) | (9.20%) |
| OPSRP UAL rate | 1.01% | 1.01% | 1.01% |
| Side account rate relief | 0.00% | 0.00% | 0.00% |
| Net pension contribution rate | 10.53% | 0.00% | 4.71% |
| Retiree Healthcare | | | |
| Normal cost rate | 0.07% | 0.00% | 0.00% |
| UAL rate | 0.43% | 0.43% | 0.43% |
| Net retiree healthcare rate | 0.50% | 0.43% | 0.43% |
| Total net employer contribution rate | 11.03% | 0.43% | 5.14% |

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 109%.

| Funded Status as of December 31, 2015 | 70% to 130% | Under 60% or Over 140% |
|--|--------------------|-------------------------------|
| 2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate | 6.52% | 6.52% |
| Minimum 2017-2019 Rate | 3.52% | 0.52% |
| Maximum 2017-2019 Rate | 9.52% | 12.52% |

Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b - a) | Funded Ratio (a ÷ b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a) ÷ c) |
|--------------------------|-------------------------------|---------------------------------------|----------------------|----------------------|---------------------|---|
| 12/31/2009 | \$1,085,009 | \$1,054,205 | (\$30,804) | 103% | \$280,934 | (11%) |
| 12/31/2010 | 1,148,797 | 1,222,151 | 73,354 | 94% | 299,382 | 25% |
| 12/31/2011 | 1,158,734 | 1,294,432 | 135,698 | 90% | 283,239 | 48% |
| 12/31/2012 | 1,302,300 | 1,090,558 | (211,742) | 119% | 178,369 | (119%) |
| 12/31/2013 | 1,434,706 | 1,162,654 | (272,052) | 123% | 267,075 | (102%) |
| 12/31/2014 | 1,464,839 | 1,340,855 | (123,984) | 109% | 271,075 | (46%) |

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

| | Payroll | | |
|-------------------------------|-----------------|-----------------|---------------|
| | Tier 1 / Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| July 1, 2013 to June 30, 2015 | 0.59% | 0.49% | 0.49% |
| July 1, 2015 to June 30, 2017 | 0.53% | 0.45% | 0.45% |

Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Wallowa County

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| T1/T2 UAL | (\$123,984) | (\$272,052) |
| Allocated pooled OPSRP UAL | 30,990 | 18,884 |
| Side account | 0 | 0 |
| Net unfunded pension actuarial accrued liability | (92,994) | (253,168) |
| Combined valuation payroll | 271,075 | 267,075 |
| Net pension UAL as a percentage of payroll | (34%) | (95%) |
| Calculated side account rate relief | 0.00% | 0.00% |
| Allocated pooled RHIA UAL | \$2,155 | \$3,697 |

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| Normal cost | \$18,401 | \$13,688 |
| Tier 1/Tier 2 valuation payroll | 98,319 | 99,592 |
| Tier 1/Tier 2 pension normal cost rate | 18.72% | 13.74% |
| Tier 1/ Tier 2 Actuarial accrued liability | \$1,340,855 | \$1,162,654 |
| Actuarial asset value | 1,464,839 | 1,434,706 |
| Tier 1/Tier 2 Unfunded actuarial accrued liability | (123,984) | (272,052) |
| Tier 1/ Tier 2 Funded status | 109% | 123% |
| Combined valuation payroll | \$271,075 | \$267,075 |
| Tier 1/Tier 2 UAL as a percentage of payroll | (46%) | (102%) |
| Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10) | (9.20%) | (7.22%) |
| Tier 1/Tier 2 active members ¹ | 1 | 1 |
| Tier 1/Tier 2 dormant members | 3 | 3 |
| Tier 1/Tier 2 retirees and beneficiaries | 8 | 9 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Executive Summary

Principal Valuation Results (continued)

OPSRP

| (\$ in millions) | Actuarial Valuation as of | |
|---|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| General service normal cost | \$301.3 | \$234.7 |
| OPSRP general service valuation payroll | 3,720.4 | 3,200.0 |
| General service normal cost rate | 8.10% | 7.33% |
| Police and fire normal cost | \$59.6 | \$45.5 |
| OPSRP police and fire valuation payroll | 462.3 | 398.1 |
| Police and fire normal cost rate | 12.90% | 11.44% |
| Actuarial accrued liability | \$3,064.1 | \$2,243.3 |
| Actuarial asset value | 2,024.6 | 1,630.2 |
| Unfunded actuarial accrued liability | 1,039.5 | 613.2 |
| Funded status | 66% | 73% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 11% | 7% |
| UAL rate | 1.01% | 0.61% |

Retiree Healthcare

| (\$ in millions) | Actuarial Valuation as of | |
|--------------------------------------|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| RHIA | | |
| Normal cost | \$3.5 | \$4.0 |
| Tier 1 / Tier 2 valuation payroll | 4,933.1 | 5,073.7 |
| Normal cost rate | 0.07% | 0.08% |
| Actuarial accrued liability | \$468.4 | \$473.6 |
| Actuarial asset value | 395.9 | 353.5 |
| Unfunded actuarial accrued liability | 72.5 | 120.0 |
| Funded status | 85% | 75% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 1% | 1% |
| UAL rate | 0.43% | 0.45% |

Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

| | New | Continuing | Total |
|---|------------|------------|-------|
| 1. Side account as of December 31, 2013 | N/A | | |
| 2. Deposits made during 2014 | | N/A | |
| 3. Administrative expenses | | | |
| 4. Amount transferred to employer reserves during 2014 | | | |
| 5. Side account earnings during 2014 | | | |
| 6. Side account as of December 31, 2014 (1. + 2. + 3. + 4. + 5.) | | | |

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Total side account | \$0 | \$0 |
| 2. Combined valuation payroll | 271,075 | 267,075 |
| 3. Amortization factor | 10.118 | 10.703 |
| 4. Total side account rate (-1. ÷ 2. ÷ 3.)¹ | 0.00% | 0.00% |

¹ For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.

Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

| | December 31, 2014 | December 31, 2013 |
|---|--------------------|--------------------|
| 1. Member reserves | \$121,989 | \$113,788 |
| 2. Employer reserves | 979,506 | 909,357 |
| 3. Benefits in force reserve | 363,344 | 411,561 |
| 4. Total market value of assets (1. + 2. + 3.) | \$1,464,839 | \$1,434,706 |

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

| | December 31, 2013 to December 31, 2014 |
|---|---|
| 1. Market value of assets at beginning of year | \$1,434,706 |
| 2. Regular employer contributions | 4,004 |
| 3. Benefit payments and expense | (60,009) |
| 4. Adjustments ¹ | (13,144) |
| 5. Interest credited | 99,282 |
| 6. Total transferred from side accounts | 0 |
| 7. Market value of assets at end of year (1. + 2. + 3. + 4. + 5. + 6.) | \$1,464,839 |

¹ Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|------------------------|-------------------|-------------------|
| Tier 1 Police & Fire | \$0 | \$0 |
| Tier 1 General Service | 0 | 0 |
| Tier 2 Police & Fire | 18,401 | 13,688 |
| Tier 2 General Service | 0 | 0 |
| Total | \$18,401 | \$13,688 |

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-------------|----------------|---------------|------------|
| Normal Cost | \$15,146 | \$18,401 | \$3,255 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|--|--------------------|--------------------|
| Active Members | | |
| ▪ Tier 1 Police & Fire | \$0 | \$0 |
| ▪ Tier 1 General Service | 0 | 0 |
| ▪ Tier 2 Police & Fire | 295,338 | 215,944 |
| ▪ Tier 2 General Service | 0 | 0 |
| ▪ Total Active Members | \$295,338 | \$215,944 |
| Dormant Members | 340,638 | 283,288 |
| Retired Members and Beneficiaries | 704,879 | 663,422 |
| Total Actuarial Accrued Liability | \$1,340,855 | \$1,162,654 |

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-----------------------------|-------------------|------------------|---------------|
| Actuarial Accrued Liability | \$1,183,975 | \$1,340,855 | \$156,880 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Actuarial accrued liability | \$1,340,855 | \$1,162,654 |
| 2. Actuarial value of assets | 1,464,839 | 1,434,706 |
| 3. Unfunded accrued liability (1. – 2.) | (123,984) | (272,052) |
| 4. Funded percentage (2. ÷ 1.) | 109% | 123% |
| 5. Combined valuation payroll | \$271,075 | \$267,075 |
| 6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.) | (46%) | (102%) |

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

| Amortization Base | UAL December 31, 2013 | Payment | Interest | UAL December 31, 2014 | Next Year's Payment |
|-------------------|--------------------------|------------|------------|--------------------------|------------------------|
| December 31, 2013 | (\$272,052) | (\$19,691) | (\$20,272) | (\$272,633) | (\$20,422) |
| December 31, 2014 | N/A | N/A | N/A | \$148,649 | \$10,756 |
| Total | | | | (\$123,984) | (\$9,666) |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

| | |
|--|------------------|
| 1. Expected actuarial accrued liability | |
| a. Actuarial accrued liability at December 31, 2013 | \$1,162,654 |
| b. Normal cost at December 31, 2013 | 13,688 |
| c. Benefit payments during 2014 | (59,547) |
| d. Interest at 7.75% to December 31, 2014 | 88,329 |
| e. Expected actuarial accrued liability before changes (a. + b. + c. + d.) | 1,205,124 |
| f. Change in actuarial accrued liability due to assumption, method, and plan changes | 156,880 |
| g. Expected actuarial accrued liability at December 31, 2014 (e. + f.) | 1,362,004 |
| 2. Actuarial accrued liability at December 31, 2014 | 1,340,855 |
| 3. Gain/(loss) on actuarial accrued liability (1.g. - 2.) | 21,149 |
| 4. Expected actuarial value of assets | |
| a. Actuarial value of assets at December 31, 2013 | 1,434,706 |
| b. Contributions for 2014 ¹ | 4,004 |
| c. Benefit payments and expenses during 2014 | (60,009) |
| d. Interest at 7.75% to December 31, 2014 | 109,020 |
| e. Expected actuarial value of assets at December 31, 2014 (a. + b. + c. + d.) | 1,487,720 |
| 5. Actuarial value of assets at December 31, 2014 | 1,464,839 |
| 6. Gain/(loss) on actuarial value of assets (5. - 4.e.) | (22,882) |
| 7. Total actuarial gain/(loss) (3. + 6.) | (\$1,733) |

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

| | |
|---|--------------------|
| 1. UAL at December 31, 2013 | (\$272,052) |
| 2. Expected increase | (10,545) |
| 3. Liability (gain)/loss | (21,149) |
| 4. Asset (gain)/loss | 22,882 |
| 5. Change due to changes in assumptions, methods, and plan provisions | 156,880 |
| 6. UAL at December 31, 2014 (1. + 2. + 3. + 4. + 5.) | (\$123,984) |

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

| | December 31, 2014 | | | December 31, 2013 | | |
|------------------------|-------------------|--|------------------|-------------------|--|------------------|
| | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate |
| Tier 1 Police & Fire | \$0 | \$0 | 0.00% | \$0 | \$0 | 0.00% |
| Tier 1 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 Police & Fire | 18,401 | 98,319 | 18.72% | 13,688 | 99,592 | 13.74% |
| Tier 2 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Total | \$18,401 | \$98,319 | 18.72% | \$13,688 | \$99,592 | 13.74% |

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Total Tier 1/Tier 2 UAL | (\$123,984) | (\$272,052) |
| 2. Next year's Tier 1/Tier 2 UAL payment | (9,666) | (19,691) |
| 3. Combined valuation payroll | 271,075 | 267,075 |
| 4. Tier 1/Tier 2 UAL rate (2. ÷ 3.) | (3.57%) | (7.37%) |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|---|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 18.72% | 13.74% |
| b. Tier 1/Tier 2 UAL rate | (3.57%) | (7.37%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate (a. + b. + c.) | 15.30% | 6.52% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

| | |
|--|---------|
| 1. Current net Tier 1/Tier 2 pension contribution rate | 6.52% |
| 2. Employer contribution rate attributable to side accounts | 0.00% |
| 3. Current employer Tier 1/Tier 2 pension contribution rate (1. – 2.) | 6.52% |
| 4. Size of rate collar | |
| a. 20% of current employer contribution rate (20% x 3.) | 1.30% |
| b. Preliminary size of rate collar (maximum of 3% or a.) | 3.00% |
| c. Funded percentage | 109% |
| d. Size of rate collar (If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.) | 3.00% |
| 5. Advisory July 1, 2017 minimum employer contribution rate (3. – 4.d. but not < 0%) | 3.52% |
| 6. Advisory July 1, 2017 maximum employer contribution rate (3. + 4.d.) | 9.52% |
| 7. Advisory July 1, 2017 total pension rate, before adjustment | 15.30% |
| 8. Net adjustment due to rate collar (5. – 7., but not < 0, or 6. – 7., but not > 0) | (5.78%) |
| 9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar | (3.57%) |
| 10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar (8. + 9.) | (9.35%) |
| 11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar | 9.52% |
| 12. Tier 1/Tier 2 retiree healthcare rate | 0.50% |
| 13. Net adjustment due to 6% minimum (6% - 11. - 12., minimum 0%) | 0.00% |
| 14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment | 18.72% |
| 15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment (13. + 14.) | 18.72% |
| 16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment (11. + 13.) | 9.52% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|--|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 18.72% | 13.74% |
| b. Tier 1/Tier 2 UAL rate | (9.35%) | (7.37%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate | 9.52% | 6.52% |
| <i>(a. + b. + c., minimum of 5.50%)</i> | | |

Data

Demographic Information

Employer Valuation Payroll

| | General Service | Police & Fire | Total |
|-----------------------------------|-----------------|------------------|------------------|
| Tier 1 | \$0 | \$0 | \$0 |
| Tier 2 | 0 | 98,319 | 98,319 |
| Tier 1/Tier 2 valuation payroll | 0 | 98,319 | 98,319 |
| OPSRP valuation payroll | 0 | 172,756 | 172,756 |
| Combined valuation payroll | \$0 | \$271,075 | \$271,075 |

Employer Member Census

| | December 31 | | | | | | | |
|--|-------------|----------|------------|-----------|-----------|----------|------------|-----------|
| | 2014 | | | | 2013 | | | |
| | Tier 1 | Tier 2 | OPSRP | Total | Tier 1 | Tier 2 | OPSRP | Total |
| Active Members ¹ | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 0 | 1 | 3 | 4 | 0 | 1 | 3 | 4 |
| Total | 0 | 1 | 3 | 4 | 0 | 1 | 3 | 4 |
| Active Members with previous service segments with the employer | | | | | | | | |
| General Service | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Police & Fire | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Total | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Dormant Members | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 2 | 1 | 0 | 3 | 2 | 1 | 0 | 3 |
| Total | 2 | 1 | 0 | 3 | 2 | 1 | 0 | 3 |
| Retired Members and Beneficiaries | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 7 | 1 | 0 | 8 | 8 | 1 | 0 | 9 |
| Total | 7 | 1 | 0 | 8 | 8 | 1 | 0 | 9 |
| Grand Total Number of Members | 9 | 3 | 3 | 15 | 10 | 3 | 3 | 16 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

| Age | Years of Service | | | | | | | | | Total |
|--------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| <20 | | | | | | | | | | |
| 20-24 | | | | | | | | | | |
| 25-29 | | | | | | | | | | |
| 30-34 | | | | | | | | | | |
| 35-39 | | | | | | | | | | |
| 40-44 | | | | | | | | | | |
| 45-49 | | | 1 | | | | | | | 1 |
| 50-54 | | | | | | | | | | |
| 55-59 | | | | | | | | | | |
| 60-64 | | | | | | | | | | |
| 65-69 | | | | | | | | | | |
| 70-74 | | | | | | | | | | |
| 75+ | | | | | | | | | | |
| Total | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|----------|----------------------------------|-----------------------------------|----------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | 1 | 524 |
| 35-39 | | | 60-64 | 1 | 1,047 |
| 40-44 | 1 | 1,485 | 65-69 | 2 | 749 |
| 45-49 | 2 | 1,089 | 70-74 | 1 | 624 |
| 50-54 | | | 75-79 | 1 | 120 |
| 55-59 | | | 80-84 | 2 | 177 |
| 60-64 | | | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | 3 | 1,221 | Total | 8 | 521 |

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

| | |
|---|--|
| <i>Actuarial cost method</i> | Entry Age Normal. |
| <i>Amortization Method</i> | <p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.</p> |
| <i>Asset valuation method</i> | Market value of assets, excluding reserves. |
| <i>Contribution rate stabilization method (rate collar)</i> | <p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p> |

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

| | |
|--------------------------------------|--|
| <i>Net investment return</i> | 7.50% compounded annually on system assets. |
| <i>Interest crediting</i> | <p>7.50% compounded annually on members' regular account balances starting in 2015.</p> <p>7.50% compounded annually on members' variable account balances starting in 2015.</p> |
| <i>Consumer price inflation</i> | 2.50% per year. |
| <i>Future general wage inflation</i> | 3.50% per year. |
| <i>Healthcare cost inflation</i> | Ranging from 7.0% in 2015 to 4.4% in 2094. |
| <i>Administrative Expenses</i> | <p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p> |

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

Administrative expenses for the Tier 1/Tier 2 System are assumed to be \$33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

November 2015

West Side Rural Fire Protection District/2796
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.



November 2015
West Side Rural Fire Protection District/2796

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



November 2015
West Side Rural Fire Protection District/2796

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

West Side Rural Fire Protection District -- #2796

November 2015

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Executive Summary

Milliman has prepared this report for West Side Rural Fire Protection District to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to West Side Rural Fire Protection District.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for West Side Rural Fire Protection District

| | Payroll | | |
|---|---------------|--------------------------|------------------------|
| | Tier 1/Tier 2 | OPSRP General Service | OPSRP Police & Fire |
| Pension | | | |
| Normal cost rate | 26.37% | 8.10% | 12.90% |
| Tier 1/Tier 2 UAL rate ¹ | (8.61%) | (8.61%) | (8.61%) |
| OPSRP UAL rate | 1.01% | 1.01% | 1.01% |
| Side account rate relief | 0.00% | 0.00% | 0.00% |
| Net pension contribution rate | 18.77% | 0.50% | 5.30% |
| Retiree Healthcare | | | |
| Normal cost rate | 0.07% | 0.00% | 0.00% |
| UAL rate | 0.43% | 0.43% | 0.43% |
| Net retiree healthcare rate | 0.50% | 0.43% | 0.43% |
| Total net employer contribution rate | 19.27% | 0.93% | 5.73% |

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 117%.

| Funded Status as of December 31, 2015 | 70% to 130% | Under 60% or Over 140% |
|--|--------------------|-------------------------------|
| 2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate | 14.76% | 14.76% |
| Minimum 2017-2019 Rate | 11.76% | 8.76% |
| Maximum 2017-2019 Rate | 17.76% | 20.76% |

Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b - a) | Funded Ratio (a ÷ b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a) ÷ c) |
|--------------------------|-------------------------------|---------------------------------------|----------------------|----------------------|---------------------|---|
| 12/31/2009 | \$180,273 | \$148,854 | (\$31,419) | 121% | \$76,630 | (41%) |
| 12/31/2010 | 214,440 | 171,459 | (42,981) | 125% | 79,841 | (54%) |
| 12/31/2011 | 231,035 | 197,980 | (33,055) | 117% | 82,111 | (40%) |
| 12/31/2012 | 278,239 | 226,802 | (51,437) | 123% | 84,601 | (61%) |
| 12/31/2013 | 335,523 | 253,385 | (82,138) | 132% | 87,178 | (94%) |
| 12/31/2014 | 369,674 | 315,804 | (53,870) | 117% | 129,580 | (42%) |

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

| | Payroll | | |
|-------------------------------|-----------------|-----------------|---------------|
| | Tier 1 / Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| July 1, 2013 to June 30, 2015 | 0.59% | 0.49% | 0.49% |
| July 1, 2015 to June 30, 2017 | 0.53% | 0.45% | 0.45% |

Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

West Side Rural Fire Protection District

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| T1/T2 UAL | (\$53,870) | (\$82,138) |
| Allocated pooled OPSRP UAL | 14,814 | 6,164 |
| Side account | 0 | 0 |
| Net unfunded pension actuarial accrued liability | (39,056) | (75,974) |
| Combined valuation payroll | 129,580 | 87,178 |
| Net pension UAL as a percentage of payroll | (30%) | (87%) |
| Calculated side account rate relief | 0.00% | 0.00% |
| Allocated pooled RHIA UAL | \$1,030 | \$1,207 |

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| Normal cost | \$23,656 | \$18,681 |
| Tier 1/Tier 2 valuation payroll | 89,702 | 87,178 |
| Tier 1/Tier 2 pension normal cost rate | 26.37% | 21.43% |
| Tier 1/ Tier 2 Actuarial accrued liability | \$315,804 | \$253,385 |
| Actuarial asset value | 369,674 | 335,523 |
| Tier 1/Tier 2 Unfunded actuarial accrued liability | (53,870) | (82,138) |
| Tier 1/ Tier 2 Funded status | 117% | 132% |
| Combined valuation payroll | \$129,580 | \$87,178 |
| Tier 1/Tier 2 UAL as a percentage of payroll | (42%) | (94%) |
| Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10) | (8.61%) | (6.67%) |
| Tier 1/Tier 2 active members ¹ | 1 | 1 |
| Tier 1/Tier 2 dormant members | 0 | 0 |
| Tier 1/Tier 2 retirees and beneficiaries | 0 | 0 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Executive Summary

Principal Valuation Results (continued)

OPSRP

| (\$ in millions) | Actuarial Valuation as of | |
|---|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| General service normal cost | \$301.3 | \$234.7 |
| OPSRP general service valuation payroll | 3,720.4 | 3,200.0 |
| General service normal cost rate | 8.10% | 7.33% |
| Police and fire normal cost | \$59.6 | \$45.5 |
| OPSRP police and fire valuation payroll | 462.3 | 398.1 |
| Police and fire normal cost rate | 12.90% | 11.44% |
| Actuarial accrued liability | \$3,064.1 | \$2,243.3 |
| Actuarial asset value | 2,024.6 | 1,630.2 |
| Unfunded actuarial accrued liability | 1,039.5 | 613.2 |
| Funded status | 66% | 73% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 11% | 7% |
| UAL rate | 1.01% | 0.61% |

Retiree Healthcare

| (\$ in millions) | Actuarial Valuation as of | |
|--------------------------------------|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| RHIA | | |
| Normal cost | \$3.5 | \$4.0 |
| Tier 1 / Tier 2 valuation payroll | 4,933.1 | 5,073.7 |
| Normal cost rate | 0.07% | 0.08% |
| Actuarial accrued liability | \$468.4 | \$473.6 |
| Actuarial asset value | 395.9 | 353.5 |
| Unfunded actuarial accrued liability | 72.5 | 120.0 |
| Funded status | 85% | 75% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 1% | 1% |
| UAL rate | 0.43% | 0.45% |

Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

| | New | Continuing | Total |
|---|------------|------------|-------|
| 1. Side account as of December 31, 2013 | N/A | | |
| 2. Deposits made during 2014 | | N/A | |
| 3. Administrative expenses | | | |
| 4. Amount transferred to employer reserves during 2014 | | | |
| 5. Side account earnings during 2014 | | | |
| 6. Side account as of December 31, 2014 (1. + 2. + 3. + 4. + 5.) | | | |

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Total side account | \$0 | \$0 |
| 2. Combined valuation payroll | 129,580 | 87,178 |
| 3. Amortization factor | 10.118 | 10.703 |
| 4. Total side account rate (-1. ÷ 2. ÷ 3.)¹ | 0.00% | 0.00% |

¹ For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.

Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Member reserves | \$29,026 | \$27,168 |
| 2. Employer reserves | 340,648 | 308,355 |
| 3. Benefits in force reserve | 0 | 0 |
| 4. Total market value of assets (1. + 2. + 3.) | \$369,674 | \$335,523 |

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

| | December 31, 2013 to December 31, 2014 |
|---|---|
| 1. Market value of assets at beginning of year | \$335,523 |
| 2. Regular employer contributions | 9,321 |
| 3. Benefit payments and expense | 0 |
| 4. Adjustments ¹ | (84) |
| 5. Interest credited | 24,914 |
| 6. Total transferred from side accounts | 0 |
| 7. Market value of assets at end of year (1. + 2. + 3. + 4. + 5. + 6.) | \$369,674 |

¹ Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|------------------------|-------------------|-------------------|
| Tier 1 Police & Fire | \$0 | \$0 |
| Tier 1 General Service | 0 | 0 |
| Tier 2 Police & Fire | 23,656 | 18,681 |
| Tier 2 General Service | 0 | 0 |
| Total | \$23,656 | \$18,681 |

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-------------|----------------|---------------|------------|
| Normal Cost | \$19,464 | \$23,656 | \$4,192 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| Active Members | | |
| ▪ Tier 1 Police & Fire | \$0 | \$0 |
| ▪ Tier 1 General Service | 0 | 0 |
| ▪ Tier 2 Police & Fire | 315,804 | 253,385 |
| ▪ Tier 2 General Service | 0 | 0 |
| ▪ Total Active Members | \$315,804 | \$253,385 |
| Dormant Members | 0 | 0 |
| Retired Members and Beneficiaries | 0 | 0 |
| Total Actuarial Accrued Liability | \$315,804 | \$253,385 |

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-----------------------------|----------------|---------------|------------|
| Actuarial Accrued Liability | \$284,701 | \$315,804 | \$31,103 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Actuarial accrued liability | \$315,804 | \$253,385 |
| 2. Actuarial value of assets | 369,674 | 335,523 |
| 3. Unfunded accrued liability (1. – 2.) | (53,870) | (82,138) |
| 4. Funded percentage (2. ÷ 1.) | 117% | 132% |
| 5. Combined valuation payroll | \$129,580 | \$87,178 |
| 6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.) | (42%) | (94%) |

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

| Amortization Base | UAL December 31, 2013 | Payment | Interest | UAL December 31, 2014 | Next Year's Payment |
|-------------------|--------------------------|-----------|-----------|--------------------------|------------------------|
| December 31, 2013 | (\$82,138) | (\$5,945) | (\$6,120) | (\$82,313) | (\$6,166) |
| December 31, 2014 | N/A | N/A | N/A | \$28,443 | \$2,058 |
| Total | | | | (\$53,870) | (\$4,108) |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

| | |
|--|----------------|
| 1. Expected actuarial accrued liability | |
| a. Actuarial accrued liability at December 31, 2013 | \$253,385 |
| b. Normal cost at December 31, 2013 | 18,681 |
| c. Benefit payments during 2014 | 0 |
| d. Interest at 7.75% to December 31, 2014 | 20,361 |
| e. Expected actuarial accrued liability before changes (a. + b. + c. + d.) | 292,427 |
| f. Change in actuarial accrued liability due to assumption, method, and plan changes | 31,103 |
| g. Expected actuarial accrued liability at December 31, 2014 (e. + f.) | 323,530 |
| 2. Actuarial accrued liability at December 31, 2014 | 315,804 |
| 3. Gain/(loss) on actuarial accrued liability (1.g. - 2.) | 7,726 |
| 4. Expected actuarial value of assets | |
| a. Actuarial value of assets at December 31, 2013 | 335,523 |
| b. Contributions for 2014 ¹ | 9,321 |
| c. Benefit payments and expenses during 2014 | 0 |
| d. Interest at 7.75% to December 31, 2014 | 26,364 |
| e. Expected actuarial value of assets at December 31, 2014 (a. + b. + c. + d.) | 371,208 |
| 5. Actuarial value of assets at December 31, 2014 | 369,674 |
| 6. Gain/(loss) on actuarial value of assets (5. - 4.e.) | (1,534) |
| 7. Total actuarial gain/(loss) (3. + 6.) | \$6,192 |

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

| | |
|---|-------------------|
| 1. UAL at December 31, 2013 | (\$82,138) |
| 2. Expected increase | 3,357 |
| 3. Liability (gain)/loss | (7,726) |
| 4. Asset (gain)/loss | 1,534 |
| 5. Change due to changes in assumptions, methods, and plan provisions | 31,103 |
| 6. UAL at December 31, 2014 (1. + 2. + 3. + 4. + 5.) | (\$53,870) |

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

| | December 31, 2014 | | | December 31, 2013 | | |
|------------------------|-------------------|--|------------------|-------------------|--|------------------|
| | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate |
| Tier 1 Police & Fire | \$0 | \$0 | 0.00% | \$0 | \$0 | 0.00% |
| Tier 1 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 Police & Fire | 23,656 | 89,702 | 26.37% | 18,681 | 87,178 | 21.43% |
| Tier 2 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Total | \$23,656 | \$89,702 | 26.37% | \$18,681 | \$87,178 | 21.43% |

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Total Tier 1/Tier 2 UAL | (\$53,870) | (\$82,138) |
| 2. Next year's Tier 1/Tier 2 UAL payment | (4,108) | (5,945) |
| 3. Combined valuation payroll | 129,580 | 87,178 |
| 4. Tier 1/Tier 2 UAL rate (2. ÷ 3.) | (3.17%) | (6.82%) |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|---|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 26.37% | 21.43% |
| b. Tier 1/Tier 2 UAL rate | (3.17%) | (6.82%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate (a. + b. + c.) | 23.35% | 14.76% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

| | |
|--|---------|
| 1. Current net Tier 1/Tier 2 pension contribution rate | 14.76% |
| 2. Employer contribution rate attributable to side accounts | 0.00% |
| 3. Current employer Tier 1/Tier 2 pension contribution rate (1. – 2.) | 14.76% |
| 4. Size of rate collar | |
| a. 20% of current employer contribution rate (20% x 3.) | 2.95% |
| b. Preliminary size of rate collar (maximum of 3% or a.) | 3.00% |
| c. Funded percentage | 117% |
| d. Size of rate collar (If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.) | 3.00% |
| 5. Advisory July 1, 2017 minimum employer contribution rate (3. – 4.d. but not < 0%) | 11.76% |
| 6. Advisory July 1, 2017 maximum employer contribution rate (3. + 4.d.) | 17.76% |
| 7. Advisory July 1, 2017 total pension rate, before adjustment | 23.35% |
| 8. Net adjustment due to rate collar (5. – 7., but not < 0, or 6. – 7., but not > 0) | (5.59%) |
| 9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar | (3.17%) |
| 10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar (8. + 9.) | (8.76%) |
| 11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar | 17.76% |
| 12. Tier 1/Tier 2 retiree healthcare rate | 0.50% |
| 13. Net adjustment due to 6% minimum (6% - 11. - 12., minimum 0%) | 0.00% |
| 14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment | 26.37% |
| 15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment (13. + 14.) | 26.37% |
| 16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment (11. + 13.) | 17.76% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|--|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 26.37% | 21.43% |
| b. Tier 1/Tier 2 UAL rate | (8.76%) | (6.82%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate <i>(a. + b. + c., minimum of 5.50%)</i> | 17.76% | 14.76% |

Data

Demographic Information

Employer Valuation Payroll

| | General Service | Police & Fire | Total |
|-----------------------------------|-----------------|------------------|------------------|
| Tier 1 | \$0 | \$0 | \$0 |
| Tier 2 | 0 | 89,702 | 89,702 |
| Tier 1/Tier 2 valuation payroll | 0 | 89,702 | 89,702 |
| OPSRP valuation payroll | 0 | 39,878 | 39,878 |
| Combined valuation payroll | \$0 | \$129,580 | \$129,580 |

Employer Member Census

| | December 31 | | | | | | | |
|--|-------------|----------|------------|----------|----------|----------|------------|----------|
| | 2014 | | | | 2013 | | | |
| | Tier 1 | Tier 2 | OPSRP | Total | Tier 1 | Tier 2 | OPSRP | Total |
| Active Members ¹ | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 0 | 1 | 1 | 2 | 0 | 1 | 0 | 1 |
| Total | 0 | 1 | 1 | 2 | 0 | 1 | 0 | 1 |
| Active Members with previous service segments with the employer | | | | | | | | |
| General Service | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Police & Fire | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Total | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Dormant Members | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Retired Members and Beneficiaries | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total Number of Members | 0 | 1 | 1 | 2 | 0 | 1 | 0 | 1 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

| Age | Years of Service | | | | | | | | | Total |
|--------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| <20 | | | | | | | | | | |
| 20-24 | | | | | | | | | | |
| 25-29 | | | | | | | | | | |
| 30-34 | | | | | | | | | | |
| 35-39 | | | | | | | | | | |
| 40-44 | | | | | | | | | | |
| 45-49 | | | | | | | | | | |
| 50-54 | | | | | | | | | | |
| 55-59 | | | | | | | | | | |
| 60-64 | | | 1 | | | | | | | 1 |
| 65-69 | | | | | | | | | | |
| 70-74 | | | | | | | | | | |
| 75+ | | | | | | | | | | |
| Total | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|-------|----------------------------------|-----------------------------------|-------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | | |
| 35-39 | | | 60-64 | | |
| 40-44 | | | 65-69 | | |
| 45-49 | | | 70-74 | | |
| 50-54 | | | 75-79 | | |
| 55-59 | | | 80-84 | | |
| 60-64 | | | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | | | Total | | |

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

| | |
|---|--|
| <i>Actuarial cost method</i> | Entry Age Normal. |
| <i>Amortization Method</i> | <p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.</p> |
| <i>Asset valuation method</i> | Market value of assets, excluding reserves. |
| <i>Contribution rate stabilization method (rate collar)</i> | <p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p> |

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

| | |
|--------------------------------------|--|
| <i>Net investment return</i> | 7.50% compounded annually on system assets. |
| <i>Interest crediting</i> | <p>7.50% compounded annually on members' regular account balances starting in 2015.</p> <p>7.50% compounded annually on members' variable account balances starting in 2015.</p> |
| <i>Consumer price inflation</i> | 2.50% per year. |
| <i>Future general wage inflation</i> | 3.50% per year. |
| <i>Healthcare cost inflation</i> | Ranging from 7.0% in 2015 to 4.4% in 2094. |
| <i>Administrative Expenses</i> | <p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p> |

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

Administrative expenses for the Tier 1/Tier 2 System are assumed to be \$33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called "funding method," a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

November 2015

West Valley Fire District/2725
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.



November 2015
West Valley Fire District/2725

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



November 2015
West Valley Fire District/2725

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

West Valley Fire District -- #2725

November 2015

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Executive Summary

Milliman has prepared this report for West Valley Fire District to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to West Valley Fire District.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for West Valley Fire District

| | Payroll | | |
|---|---------------|-----------------|---------------|
| | Tier 1/Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| Pension | | | |
| Normal cost rate | 12.13% | 8.10% | 12.90% |
| Tier 1/Tier 2 UAL rate ¹ | 3.18% | 3.18% | 3.18% |
| OPSRP UAL rate | 1.01% | 1.01% | 1.01% |
| Side account rate relief | 0.00% | 0.00% | 0.00% |
| Net pension contribution rate | 16.32% | 12.29% | 17.09% |
| Retiree Healthcare | | | |
| Normal cost rate | 0.07% | 0.00% | 0.00% |
| UAL rate | 0.43% | 0.43% | 0.43% |
| Net retiree healthcare rate | 0.50% | 0.43% | 0.43% |
| Total net employer contribution rate | 16.82% | 12.72% | 17.52% |

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 75%.

| Funded Status as of December 31, 2015 | 70% to 130% | Under 60% or Over 140% |
|--|--------------------|-------------------------------|
| 2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate | 13.96% | 13.96% |
| Minimum 2017-2019 Rate | 10.96% | 7.96% |
| Maximum 2017-2019 Rate | 16.96% | 19.96% |

Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b - a) | Funded Ratio (a ÷ b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a) ÷ c) |
|--------------------------|-------------------------------|---------------------------------------|----------------------|----------------------|---------------------|---|
| 12/31/2009 | \$467,780 | \$426,605 | (\$41,175) | 110% | \$287,520 | (14%) |
| 12/31/2010 | 556,619 | 497,630 | (58,989) | 112% | 490,715 | (12%) |
| 12/31/2011 | 596,571 | 590,253 | (6,318) | 101% | 457,183 | (1%) |
| 12/31/2012 | 699,866 | 728,108 | 28,242 | 96% | 368,253 | 8% |
| 12/31/2013 | 813,970 | 782,700 | (31,270) | 104% | 509,464 | (6%) |
| 12/31/2014 | 770,983 | 1,025,215 | 254,232 | 75% | 604,114 | 42% |

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

| | Payroll | | |
|-------------------------------|-----------------|-----------------|---------------|
| | Tier 1 / Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| July 1, 2013 to June 30, 2015 | 0.59% | 0.49% | 0.49% |
| July 1, 2015 to June 30, 2017 | 0.53% | 0.45% | 0.45% |

Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

West Valley Fire District

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| T1/T2 UAL | \$254,232 | (\$31,270) |
| Allocated pooled OPSRP UAL | 69,063 | 36,022 |
| Side account | 0 | 0 |
| Net unfunded pension actuarial accrued liability | 323,295 | 4,752 |
| Combined valuation payroll | 604,114 | 509,464 |
| Net pension UAL as a percentage of payroll | 54% | 1% |
| Calculated side account rate relief | 0.00% | 0.00% |
| Allocated pooled RHIA UAL | \$4,802 | \$7,052 |

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| Normal cost | \$6,094 | \$15,373 |
| Tier 1/Tier 2 valuation payroll | 50,224 | 107,887 |
| Tier 1/Tier 2 pension normal cost rate | 12.13% | 14.25% |
| Tier 1/ Tier 2 Actuarial accrued liability | \$1,025,215 | \$782,700 |
| Actuarial asset value | 770,983 | 813,970 |
| Tier 1/Tier 2 Unfunded actuarial accrued liability | 254,232 | (31,270) |
| Tier 1/ Tier 2 Funded status | 75% | 104% |
| Combined valuation payroll | \$604,114 | \$509,464 |
| Tier 1/Tier 2 UAL as a percentage of payroll | 42% | (6%) |
| Tier 1/Tier 2 UAL rate | 3.18% | (0.29%) |
| (includes Multnomah Fire District #10) | | |
| Tier 1/Tier 2 active members ¹ | 1 | 2 |
| Tier 1/Tier 2 dormant members | 5 | 5 |
| Tier 1/Tier 2 retirees and beneficiaries | 7 | 5 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Executive Summary

Principal Valuation Results (continued)

OPSRP

| (\$ in millions) | Actuarial Valuation as of | |
|---|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| General service normal cost | \$301.3 | \$234.7 |
| OPSRP general service valuation payroll | 3,720.4 | 3,200.0 |
| General service normal cost rate | 8.10% | 7.33% |
| Police and fire normal cost | \$59.6 | \$45.5 |
| OPSRP police and fire valuation payroll | 462.3 | 398.1 |
| Police and fire normal cost rate | 12.90% | 11.44% |
| Actuarial accrued liability | \$3,064.1 | \$2,243.3 |
| Actuarial asset value | 2,024.6 | 1,630.2 |
| Unfunded actuarial accrued liability | 1,039.5 | 613.2 |
| Funded status | 66% | 73% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 11% | 7% |
| UAL rate | 1.01% | 0.61% |

Retiree Healthcare

| (\$ in millions) | Actuarial Valuation as of | |
|--------------------------------------|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| RHIA | | |
| Normal cost | \$3.5 | \$4.0 |
| Tier 1 / Tier 2 valuation payroll | 4,933.1 | 5,073.7 |
| Normal cost rate | 0.07% | 0.08% |
| Actuarial accrued liability | \$468.4 | \$473.6 |
| Actuarial asset value | 395.9 | 353.5 |
| Unfunded actuarial accrued liability | 72.5 | 120.0 |
| Funded status | 85% | 75% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 1% | 1% |
| UAL rate | 0.43% | 0.45% |

Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

| | New | Continuing | Total |
|---|------------|------------|-------|
| 1. Side account as of December 31, 2013 | N/A | | |
| 2. Deposits made during 2014 | | N/A | |
| 3. Administrative expenses | | | |
| 4. Amount transferred to employer reserves during 2014 | | | |
| 5. Side account earnings during 2014 | | | |
| 6. Side account as of December 31, 2014 (1. + 2. + 3. + 4. + 5.) | | | |

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Total side account | \$0 | \$0 |
| 2. Combined valuation payroll | 604,114 | 509,464 |
| 3. Amortization factor | 10.118 | 10.703 |
| 4. Total side account rate (-1. ÷ 2. ÷ 3.)¹ | 0.00% | 0.00% |

¹ For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.

Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Member reserves | \$73,623 | \$87,118 |
| 2. Employer reserves | 477,498 | 712,592 |
| 3. Benefits in force reserve | 219,863 | 14,260 |
| 4. Total market value of assets (1. + 2. + 3.) | \$770,983 | \$813,970 |

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

| | December 31, 2013 to December 31, 2014 |
|---|---|
| 1. Market value of assets at beginning of year | \$813,970 |
| 2. Regular employer contributions | (1,158) |
| 3. Benefit payments and expense | (36,312) |
| 4. Adjustments ¹ | (69,455) |
| 5. Interest credited | 63,938 |
| 6. Total transferred from side accounts | 0 |
| 7. Market value of assets at end of year (1. + 2. + 3. + 4. + 5. + 6.) | \$770,983 |

¹ Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|------------------------|-------------------|-------------------|
| Tier 1 Police & Fire | \$0 | \$13,524 |
| Tier 1 General Service | 0 | 0 |
| Tier 2 Police & Fire | 6,094 | 1,849 |
| Tier 2 General Service | 0 | 0 |
| Total | \$6,094 | \$15,373 |

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-------------|----------------|---------------|------------|
| Normal Cost | \$5,168 | \$6,094 | \$926 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|--|--------------------|-------------------|
| Active Members | | |
| ▪ Tier 1 Police & Fire | \$29,382 | \$258,378 |
| ▪ Tier 1 General Service | 40,814 | 35,344 |
| ▪ Tier 2 Police & Fire | 261,933 | 225,773 |
| ▪ Tier 2 General Service | 0 | 0 |
| ▪ Total Active Members | \$332,129 | \$519,495 |
| Dormant Members | 266,559 | 240,219 |
| Retired Members and Beneficiaries | 426,527 | 22,986 |
| Total Actuarial Accrued Liability | \$1,025,215 | \$782,700 |

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-----------------------------|-------------------|------------------|---------------|
| Actuarial Accrued Liability | \$917,983 | \$1,025,215 | \$107,232 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Actuarial accrued liability | \$1,025,215 | \$782,700 |
| 2. Actuarial value of assets | 770,983 | 813,970 |
| 3. Unfunded accrued liability (1. – 2.) | 254,232 | (31,270) |
| 4. Funded percentage (2. ÷ 1.) | 75% | 104% |
| 5. Combined valuation payroll | \$604,114 | \$509,464 |
| 6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.) | 42% | (6%) |

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

| Amortization Base | UAL December 31, 2013 | Payment | Interest | UAL December 31, 2014 | Next Year's Payment |
|-------------------|--------------------------|-----------|-----------|--------------------------|------------------------|
| December 31, 2013 | (\$31,270) | (\$2,263) | (\$2,330) | (\$31,337) | (\$2,347) |
| December 31, 2014 | N/A | N/A | N/A | \$285,569 | \$20,663 |
| Total | | | | \$254,232 | \$18,316 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

| | |
|--|--------------------|
| 1. Expected actuarial accrued liability | |
| a. Actuarial accrued liability at December 31, 2013 | \$782,700 |
| b. Normal cost at December 31, 2013 | 15,373 |
| c. Benefit payments during 2014 | (36,032) |
| d. Interest at 7.75% to December 31, 2014 | 59,859 |
| e. Expected actuarial accrued liability before changes (a. + b. + c. + d.) | 821,900 |
| f. Change in actuarial accrued liability due to assumption, method, and plan changes | 107,232 |
| g. Expected actuarial accrued liability at December 31, 2014 (e. + f.) | 929,132 |
| 2. Actuarial accrued liability at December 31, 2014 | 1,025,215 |
| 3. Gain/(loss) on actuarial accrued liability (1.g. - 2.) | (96,083) |
| 4. Expected actuarial value of assets | |
| a. Actuarial value of assets at December 31, 2013 | 813,970 |
| b. Contributions for 2014 ¹ | (1,158) |
| c. Benefit payments and expenses during 2014 | (36,312) |
| d. Interest at 7.75% to December 31, 2014 | 61,631 |
| e. Expected actuarial value of assets at December 31, 2014 (a. + b. + c. + d.) | 838,131 |
| 5. Actuarial value of assets at December 31, 2014 | 770,983 |
| 6. Gain/(loss) on actuarial value of assets (5. - 4.e.) | (67,148) |
| 7. Total actuarial gain/(loss) (3. + 6.) | (\$163,231) |

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

| | |
|---|-------------------|
| 1. UAL at December 31, 2013 | (\$31,270) |
| 2. Expected increase | 15,039 |
| 3. Liability (gain)/loss | 96,083 |
| 4. Asset (gain)/loss | 67,148 |
| 5. Change due to changes in assumptions, methods, and plan provisions | 107,232 |
| 6. UAL at December 31, 2014 (1. + 2. + 3. + 4. + 5.) | \$254,232 |

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

| | December 31, 2014 | | | December 31, 2013 | | |
|------------------------|-------------------|--|------------------|-------------------|--|------------------|
| | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate |
| Tier 1 Police & Fire | \$0 | \$0 | 0.00% | \$13,524 | \$94,797 | 14.27% |
| Tier 1 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 Police & Fire | 6,094 | 50,224 | 12.13% | 1,849 | 13,090 | 14.13% |
| Tier 2 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Total | \$6,094 | \$50,224 | 12.13% | \$15,373 | \$107,887 | 14.25% |

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Total Tier 1/Tier 2 UAL | \$254,232 | (\$31,270) |
| 2. Next year's Tier 1/Tier 2 UAL payment | 18,316 | (2,263) |
| 3. Combined valuation payroll | 604,114 | 509,464 |
| 4. Tier 1/Tier 2 UAL rate (2. ÷ 3.) | 3.03% | (0.44%) |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|---|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 12.13% | 14.25% |
| b. Tier 1/Tier 2 UAL rate | 3.03% | (0.44%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate (a. + b. + c.) | 15.31% | 13.96% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

| | |
|--|--------|
| 1. Current net Tier 1/Tier 2 pension contribution rate | 13.96% |
| 2. Employer contribution rate attributable to side accounts | 0.00% |
| 3. Current employer Tier 1/Tier 2 pension contribution rate (1. – 2.) | 13.96% |
| 4. Size of rate collar | |
| a. 20% of current employer contribution rate (20% x 3.) | 2.79% |
| b. Preliminary size of rate collar (maximum of 3% or a.) | 3.00% |
| c. Funded percentage | 75% |
| d. Size of rate collar (If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.) | 3.00% |
| 5. Advisory July 1, 2017 minimum employer contribution rate (3. – 4.d. but not < 0%) | 10.96% |
| 6. Advisory July 1, 2017 maximum employer contribution rate (3. + 4.d.) | 16.96% |
| 7. Advisory July 1, 2017 total pension rate, before adjustment | 15.31% |
| 8. Net adjustment due to rate collar (5. – 7., but not < 0, or 6. – 7., but not > 0) | 0.00% |
| 9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar | 3.03% |
| 10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar (8. + 9.) | 3.03% |
| 11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar | 15.31% |
| 12. Tier 1/Tier 2 retiree healthcare rate | 0.50% |
| 13. Net adjustment due to 6% minimum (6% - 11. - 12., minimum 0%) | 0.00% |
| 14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment | 12.13% |
| 15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment (13. + 14.) | 12.13% |
| 16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment (11. + 13.) | 15.31% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|--|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 12.13% | 14.25% |
| b. Tier 1/Tier 2 UAL rate | 3.03% | (0.44%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate <i>(a. + b. + c., minimum of 5.50%)</i> | 15.31% | 13.96% |

Data

Demographic Information

Employer Valuation Payroll

| | General Service | Police & Fire | Total |
|-----------------------------------|-----------------|------------------|------------------|
| Tier 1 | \$0 | \$0 | \$0 |
| Tier 2 | 0 | 50,224 | 50,224 |
| Tier 1/Tier 2 valuation payroll | 0 | 50,224 | 50,224 |
| OPSRP valuation payroll | 27,456 | 526,434 | 553,890 |
| Combined valuation payroll | \$27,456 | \$576,658 | \$604,114 |

Employer Member Census

| | December 31 | | | | | | | |
|--|-------------|-----------|-----------|-----------|-----------|-----------|----------|-----------|
| | 2014 | | | | 2013 | | | |
| | Tier 1 | Tier 2 | OPSRP | Total | Tier 1 | Tier 2 | OPSRP | Total |
| Active Members ¹ | | | | | | | | |
| General Service | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| Police & Fire | 0 | 1 | 9 | 10 | 1 | 1 | 6 | 8 |
| Total | 0 | 1 | 10 | 11 | 1 | 1 | 7 | 9 |
| Active Members with previous service segments with the employer | | | | | | | | |
| General Service | 1 | 0 | N/A | 1 | 1 | 0 | N/A | 1 |
| Police & Fire | 2 | 9 | N/A | 11 | 2 | 10 | N/A | 12 |
| Total | 3 | 9 | N/A | 12 | 3 | 10 | N/A | 13 |
| Dormant Members | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 4 | 1 | 2 | 7 | 4 | 1 | 1 | 6 |
| Total | 4 | 1 | 2 | 7 | 4 | 1 | 1 | 6 |
| Retired Members and Beneficiaries | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 6 | 1 | 0 | 7 | 5 | 0 | 0 | 5 |
| Total | 6 | 1 | 0 | 7 | 5 | 0 | 0 | 5 |
| Grand Total Number of Members | 13 | 12 | 12 | 37 | 13 | 12 | 8 | 33 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

| Age | Years of Service | | | | | | | | | Total |
|--------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| <20 | | | | | | | | | | |
| 20-24 | | | | | | | | | | |
| 25-29 | | | | | | | | | | |
| 30-34 | | | | | | | | | | |
| 35-39 | | | | | | | | | | |
| 40-44 | | 1 | | | | | | | | 1 |
| 45-49 | | | | | | | | | | |
| 50-54 | | | | | | | | | | |
| 55-59 | | | | | | | | | | |
| 60-64 | | | | | | | | | | |
| 65-69 | | | | | | | | | | |
| 70-74 | | | | | | | | | | |
| 75+ | | | | | | | | | | |
| Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|----------|----------------------------------|-----------------------------------|----------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | 1 | 15 |
| 20-24 | | | 45-49 | 1 | 20 |
| 25-29 | | | 50-54 | 1 | 1,934 |
| 30-34 | | | 55-59 | 1 | 59 |
| 35-39 | | | 60-64 | 1 | 238 |
| 40-44 | 2 | 13 | 65-69 | | |
| 45-49 | | | 70-74 | 1 | 22 |
| 50-54 | | | 75-79 | 1 | 54 |
| 55-59 | 2 | 736 | 80-84 | | |
| 60-64 | | | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | 1 | 458 | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | 5 | 391 | Total | 7 | 334 |

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

| | |
|---|--|
| <i>Actuarial cost method</i> | Entry Age Normal. |
| <i>Amortization Method</i> | <p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.</p> |
| <i>Asset valuation method</i> | Market value of assets, excluding reserves. |
| <i>Contribution rate stabilization method (rate collar)</i> | <p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p> |

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

| | |
|--------------------------------------|--|
| <i>Net investment return</i> | 7.50% compounded annually on system assets. |
| <i>Interest crediting</i> | <p>7.50% compounded annually on members' regular account balances starting in 2015.</p> <p>7.50% compounded annually on members' variable account balances starting in 2015.</p> |
| <i>Consumer price inflation</i> | 2.50% per year. |
| <i>Future general wage inflation</i> | 3.50% per year. |
| <i>Healthcare cost inflation</i> | Ranging from 7.0% in 2015 to 4.4% in 2094. |
| <i>Administrative Expenses</i> | <p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p> |

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

Administrative expenses for the Tier 1/Tier 2 System are assumed to be \$33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

November 2015

Weston Cemetery/2686
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.



November 2015
Weston Cemetery/2686

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



November 2015
Weston Cemetery/2686

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Weston Cemetery -- #2686

November 2015

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Executive Summary

Milliman has prepared this report for Weston Cemetery to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Weston Cemetery.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Weston Cemetery

| | Payroll | | |
|---|---------------|-----------------|---------------|
| | Tier 1/Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| Pension | | | |
| Normal cost rate | 11.91% | 8.10% | 12.90% |
| Tier 1/Tier 2 UAL rate ¹ | 1.15% | 1.15% | 1.15% |
| OPSRP UAL rate | 1.01% | 1.01% | 1.01% |
| Side account rate relief | 0.00% | 0.00% | 0.00% |
| Net pension contribution rate | 14.07% | 10.26% | 15.06% |
| Retiree Healthcare | | | |
| Normal cost rate | 0.07% | 0.00% | 0.00% |
| UAL rate | 0.43% | 0.43% | 0.43% |
| Net retiree healthcare rate | 0.50% | 0.43% | 0.43% |
| Total net employer contribution rate | 14.57% | 10.69% | 15.49% |

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 93%.

| Funded Status as of December 31, 2015 | 70% to 130% | Under 60% or Over 140% |
|--|--------------------|-------------------------------|
| 2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate | 11.71% | 11.71% |
| Minimum 2017-2019 Rate | 8.71% | 5.71% |
| Maximum 2017-2019 Rate | 14.71% | 17.71% |

Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b - a) | Funded Ratio (a ÷ b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a) ÷ c) |
|--------------------------|-------------------------------|---------------------------------------|----------------------|----------------------|---------------------|---|
| 12/31/2009 | \$95,306 | \$108,235 | \$12,929 | 88% | \$18,996 | 68% |
| 12/31/2010 | 99,997 | 118,986 | 18,989 | 84% | 23,703 | 80% |
| 12/31/2011 | 94,356 | 120,406 | 26,050 | 78% | 3,845 | 678% |
| 12/31/2012 | 103,907 | 122,524 | 18,617 | 85% | 9,681 | 192% |
| 12/31/2013 | 112,555 | 109,317 | (3,238) | 103% | 27,143 | (12%) |
| 12/31/2014 | 112,106 | 120,512 | 8,406 | 93% | 60,088 | 14% |

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

| | Payroll | | |
|-------------------------------|-----------------|-----------------|---------------|
| | Tier 1 / Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| July 1, 2013 to June 30, 2015 | 0.59% | 0.49% | 0.49% |
| July 1, 2015 to June 30, 2017 | 0.53% | 0.45% | 0.45% |

Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Weston Cemetery

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| T1/T2 UAL | \$8,406 | (\$3,238) |
| Allocated pooled OPSRP UAL | 6,869 | 1,919 |
| Side account | 0 | 0 |
| Net unfunded pension actuarial accrued liability | 15,275 | (1,319) |
| Combined valuation payroll | 60,088 | 27,143 |
| Net pension UAL as a percentage of payroll | 25% | (5%) |
| Calculated side account rate relief | 0.00% | 0.00% |
| Allocated pooled RHIA UAL | \$478 | \$376 |

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| Normal cost | \$2,777 | \$5,405 |
| Tier 1/Tier 2 valuation payroll | 23,314 | 27,143 |
| Tier 1/Tier 2 pension normal cost rate | 11.91% | 19.91% |
| Tier 1/ Tier 2 Actuarial accrued liability | \$120,512 | \$109,317 |
| Actuarial asset value | 112,106 | 112,555 |
| Tier 1/Tier 2 Unfunded actuarial accrued liability | 8,406 | (3,238) |
| Tier 1/ Tier 2 Funded status | 93% | 103% |
| Combined valuation payroll | \$60,088 | \$27,143 |
| Tier 1/Tier 2 UAL as a percentage of payroll | 14% | (12%) |
| Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10) | 1.15% | (8.20%) |
| Tier 1/Tier 2 active members ¹ | 1 | 2 |
| Tier 1/Tier 2 dormant members | 0 | 0 |
| Tier 1/Tier 2 retirees and beneficiaries | 3 | 2 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Executive Summary

Principal Valuation Results (continued)

OPSRP

| (\$ in millions) | Actuarial Valuation as of | |
|---|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| General service normal cost | \$301.3 | \$234.7 |
| OPSRP general service valuation payroll | 3,720.4 | 3,200.0 |
| General service normal cost rate | 8.10% | 7.33% |
| Police and fire normal cost | \$59.6 | \$45.5 |
| OPSRP police and fire valuation payroll | 462.3 | 398.1 |
| Police and fire normal cost rate | 12.90% | 11.44% |
| Actuarial accrued liability | \$3,064.1 | \$2,243.3 |
| Actuarial asset value | 2,024.6 | 1,630.2 |
| Unfunded actuarial accrued liability | 1,039.5 | 613.2 |
| Funded status | 66% | 73% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 11% | 7% |
| UAL rate | 1.01% | 0.61% |

Retiree Healthcare

| (\$ in millions) | Actuarial Valuation as of | |
|--------------------------------------|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| RHIA | | |
| Normal cost | \$3.5 | \$4.0 |
| Tier 1 / Tier 2 valuation payroll | 4,933.1 | 5,073.7 |
| Normal cost rate | 0.07% | 0.08% |
| Actuarial accrued liability | \$468.4 | \$473.6 |
| Actuarial asset value | 395.9 | 353.5 |
| Unfunded actuarial accrued liability | 72.5 | 120.0 |
| Funded status | 85% | 75% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 1% | 1% |
| UAL rate | 0.43% | 0.45% |

Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

| | New | Continuing | Total |
|---|------------|------------|-------|
| 1. Side account as of December 31, 2013 | N/A | | |
| 2. Deposits made during 2014 | | N/A | |
| 3. Administrative expenses | | | |
| 4. Amount transferred to employer reserves during 2014 | | | |
| 5. Side account earnings during 2014 | | | |
| 6. Side account as of December 31, 2014 (1. + 2. + 3. + 4. + 5.) | | | |

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Total side account | \$0 | \$0 |
| 2. Combined valuation payroll | 60,088 | 27,143 |
| 3. Amortization factor | 10.118 | 10.703 |
| 4. Total side account rate (-1. ÷ 2. ÷ 3.)¹ | 0.00% | 0.00% |

¹ For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.

Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Member reserves | \$0 | \$0 |
| 2. Employer reserves | 59,016 | 55,230 |
| 3. Benefits in force reserve | 53,090 | 57,325 |
| 4. Total market value of assets (1. + 2. + 3.) | \$112,106 | \$112,555 |

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

| | December 31, 2013 to December 31, 2014 |
|---|---|
| 1. Market value of assets at beginning of year | \$112,555 |
| 2. Regular employer contributions | 860 |
| 3. Benefit payments and expense | (8,768) |
| 4. Adjustments ¹ | (216) |
| 5. Interest credited | 7,676 |
| 6. Total transferred from side accounts | 0 |
| 7. Market value of assets at end of year (1. + 2. + 3. + 4. + 5. + 6.) | \$112,106 |

¹ Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|------------------------|-------------------|-------------------|
| Tier 1 Police & Fire | \$0 | \$0 |
| Tier 1 General Service | 0 | 0 |
| Tier 2 Police & Fire | 0 | 0 |
| Tier 2 General Service | 2,777 | 5,405 |
| Total | \$2,777 | \$5,405 |

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-------------|----------------|---------------|------------|
| Normal Cost | \$2,341 | \$2,777 | \$436 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| Active Members | | |
| ▪ Tier 1 Police & Fire | \$0 | \$0 |
| ▪ Tier 1 General Service | 0 | 0 |
| ▪ Tier 2 Police & Fire | 0 | 0 |
| ▪ Tier 2 General Service | 17,518 | 16,911 |
| ▪ Total Active Members | \$17,518 | \$16,911 |
| Dormant Members | 0 | 0 |
| Retired Members and Beneficiaries | 102,994 | 92,406 |
| Total Actuarial Accrued Liability | \$120,512 | \$109,317 |

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-----------------------------|-------------------|------------------|---------------|
| Actuarial Accrued Liability | \$105,566 | \$120,512 | \$14,946 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Actuarial accrued liability | \$120,512 | \$109,317 |
| 2. Actuarial value of assets | 112,106 | 112,555 |
| 3. Unfunded accrued liability (1. – 2.) | 8,406 | (3,238) |
| 4. Funded percentage (2. ÷ 1.) | 93% | 103% |
| 5. Combined valuation payroll | \$60,088 | \$27,143 |
| 6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.) | 14% | (12%) |

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

| Amortization Base | UAL December 31, 2013 | Payment | Interest | UAL December 31, 2014 | Next Year's Payment |
|-------------------|--------------------------|---------|----------|--------------------------|------------------------|
| December 31, 2013 | (\$3,238) | (\$234) | (\$241) | (\$3,245) | (\$243) |
| December 31, 2014 | N/A | N/A | N/A | \$11,651 | \$843 |
| Total | | | | \$8,406 | \$600 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

| | |
|--|----------------|
| 1. Expected actuarial accrued liability | |
| a. Actuarial accrued liability at December 31, 2013 | \$109,317 |
| b. Normal cost at December 31, 2013 | 5,405 |
| c. Benefit payments during 2014 | (8,701) |
| d. Interest at 7.75% to December 31, 2014 | 8,344 |
| e. Expected actuarial accrued liability before changes (a. + b. + c. + d.) | 114,365 |
| f. Change in actuarial accrued liability due to assumption, method, and plan changes | 14,946 |
| g. Expected actuarial accrued liability at December 31, 2014 (e. + f.) | 129,311 |
| 2. Actuarial accrued liability at December 31, 2014 | 120,512 |
| 3. Gain/(loss) on actuarial accrued liability (1.g. - 2.) | 8,799 |
| 4. Expected actuarial value of assets | |
| a. Actuarial value of assets at December 31, 2013 | 112,555 |
| b. Contributions for 2014 ¹ | 860 |
| c. Benefit payments and expenses during 2014 | (8,768) |
| d. Interest at 7.75% to December 31, 2014 | 8,417 |
| e. Expected actuarial value of assets at December 31, 2014 (a. + b. + c. + d.) | 113,063 |
| 5. Actuarial value of assets at December 31, 2014 | 112,106 |
| 6. Gain/(loss) on actuarial value of assets (5. - 4.e.) | (957) |
| 7. Total actuarial gain/(loss) (3. + 6.) | \$7,842 |

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

| | |
|---|------------------|
| 1. UAL at December 31, 2013 | (\$3,238) |
| 2. Expected increase | 4,540 |
| 3. Liability (gain)/loss | (8,799) |
| 4. Asset (gain)/loss | 957 |
| 5. Change due to changes in assumptions, methods, and plan provisions | 14,946 |
| 6. UAL at December 31, 2014 (1. + 2. + 3. + 4. + 5.) | \$8,406 |

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

| | December 31, 2014 | | | December 31, 2013 | | |
|------------------------|-------------------|--|------------------|-------------------|--|------------------|
| | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate |
| Tier 1 Police & Fire | \$0 | \$0 | 0.00% | \$0 | \$0 | 0.00% |
| Tier 1 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 Police & Fire | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 General Service | 2,777 | 23,314 | 11.91% | 5,405 | 27,143 | 19.91% |
| Total | \$2,777 | \$23,314 | 11.91% | \$5,405 | \$27,143 | 19.91% |

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Total Tier 1/Tier 2 UAL | \$8,406 | (\$3,238) |
| 2. Next year's Tier 1/Tier 2 UAL payment | 600 | (234) |
| 3. Combined valuation payroll | 60,088 | 27,143 |
| 4. Tier 1/Tier 2 UAL rate (2. ÷ 3.) | 1.00% | (0.86%) |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|---|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 11.91% | 19.91% |
| b. Tier 1/Tier 2 UAL rate | 1.00% | (0.86%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate (a. + b. + c.) | 13.06% | 19.20% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

| | |
|--|--------|
| 1. Current net Tier 1/Tier 2 pension contribution rate | 11.71% |
| 2. Employer contribution rate attributable to side accounts | 0.00% |
| 3. Current employer Tier 1/Tier 2 pension contribution rate (1. – 2.) | 11.71% |
| 4. Size of rate collar | |
| a. 20% of current employer contribution rate (20% x 3.) | 2.34% |
| b. Preliminary size of rate collar (maximum of 3% or a.) | 3.00% |
| c. Funded percentage | 93% |
| d. Size of rate collar (If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.) | 3.00% |
| 5. Advisory July 1, 2017 minimum employer contribution rate (3. – 4.d. but not < 0%) | 8.71% |
| 6. Advisory July 1, 2017 maximum employer contribution rate (3. + 4.d.) | 14.71% |
| 7. Advisory July 1, 2017 total pension rate, before adjustment | 13.06% |
| 8. Net adjustment due to rate collar (5. – 7., but not < 0, or 6. – 7., but not > 0) | 0.00% |
| 9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar | 1.00% |
| 10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar (8. + 9.) | 1.00% |
| 11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar | 13.06% |
| 12. Tier 1/Tier 2 retiree healthcare rate | 0.50% |
| 13. Net adjustment due to 6% minimum (6% - 11. - 12., minimum 0%) | 0.00% |
| 14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment | 11.91% |
| 15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment (13. + 14.) | 11.91% |
| 16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment (11. + 13.) | 13.06% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|--|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 11.91% | 19.91% |
| b. Tier 1/Tier 2 UAL rate | 1.00% | (8.35%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate <i>(a. + b. + c., minimum of 5.50%)</i> | 13.06% | 11.71% |

Data

Demographic Information

Employer Valuation Payroll

| | General Service | Police & Fire | Total |
|-----------------------------------|-----------------|---------------|-----------------|
| Tier 1 | \$0 | \$0 | \$0 |
| Tier 2 | 23,314 | 0 | 23,314 |
| Tier 1/Tier 2 valuation payroll | 23,314 | 0 | 23,314 |
| OPSRP valuation payroll | 36,774 | 0 | 36,774 |
| Combined valuation payroll | \$60,088 | \$0 | \$60,088 |

Employer Member Census

| | December 31 | | | | | | | |
|--|-------------|----------|----------|----------|----------|----------|----------|----------|
| | 2014 | | | | 2013 | | | |
| | Tier 1 | Tier 2 | OPSRP | Total | Tier 1 | Tier 2 | OPSRP | Total |
| Active Members ¹ | | | | | | | | |
| General Service | 0 | 1 | 1 | 2 | 0 | 2 | 0 | 2 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 1 | 1 | 2 | 0 | 2 | 0 | 2 |
| Active Members with previous service segments with the employer | | | | | | | | |
| General Service | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Police & Fire | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Total | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Dormant Members | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Retired Members and Beneficiaries | | | | | | | | |
| General Service | 2 | 1 | 0 | 3 | 2 | 0 | 0 | 2 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 2 | 1 | 0 | 3 | 2 | 0 | 0 | 2 |
| Grand Total Number of Members | 2 | 2 | 1 | 5 | 2 | 2 | 0 | 4 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

| Age | Years of Service | | | | | | | | | Total |
|--------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| <20 | | | | | | | | | | |
| 20-24 | | | | | | | | | | |
| 25-29 | | | | | | | | | | |
| 30-34 | | | | | | | | | | |
| 35-39 | | | | | | | | | | |
| 40-44 | | | | | | | | | | |
| 45-49 | | | | | | | | | | |
| 50-54 | | | | | | | | | | |
| 55-59 | | | 1 | | | | | | | 1 |
| 60-64 | | | | | | | | | | |
| 65-69 | | | | | | | | | | |
| 70-74 | | | | | | | | | | |
| 75+ | | | | | | | | | | |
| Total | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|-------|----------------------------------|-----------------------------------|----------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | 1 | 8 |
| 35-39 | | | 60-64 | 1 | 145 |
| 40-44 | | | 65-69 | | |
| 45-49 | | | 70-74 | | |
| 50-54 | | | 75-79 | | |
| 55-59 | | | 80-84 | 1 | 781 |
| 60-64 | | | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | | | Total | 3 | 311 |

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

| | |
|---|--|
| <i>Actuarial cost method</i> | Entry Age Normal. |
| <i>Amortization Method</i> | <p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.</p> |
| <i>Asset valuation method</i> | Market value of assets, excluding reserves. |
| <i>Contribution rate stabilization method (rate collar)</i> | <p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p> |

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

| | |
|--------------------------------------|--|
| <i>Net investment return</i> | 7.50% compounded annually on system assets. |
| <i>Interest crediting</i> | <p>7.50% compounded annually on members' regular account balances starting in 2015.</p> <p>7.50% compounded annually on members' variable account balances starting in 2015.</p> |
| <i>Consumer price inflation</i> | 2.50% per year. |
| <i>Future general wage inflation</i> | 3.50% per year. |
| <i>Healthcare cost inflation</i> | Ranging from 7.0% in 2015 to 4.4% in 2094. |
| <i>Administrative Expenses</i> | <p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p> |

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

Administrative expenses for the Tier 1/Tier 2 System are assumed to be \$33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called "funding method," a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

November 2015

Winchester Bay Sanitary District/2714
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.



November 2015
Winchester Bay Sanitary District/2714

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



November 2015
Winchester Bay Sanitary District/2714

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Winchester Bay Sanitary District -- #2714

November 2015

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Executive Summary

Milliman has prepared this report for Winchester Bay Sanitary District to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Winchester Bay Sanitary District.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Winchester Bay Sanitary District

| | Payroll | | |
|---|---------------|-----------------|---------------|
| | Tier 1/Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| Pension | | | |
| Normal cost rate | 14.23% | 8.10% | 12.90% |
| Tier 1/Tier 2 UAL rate ¹ | 2.68% | 2.68% | 2.68% |
| OPSRP UAL rate | 1.01% | 1.01% | 1.01% |
| Side account rate relief | 0.00% | 0.00% | 0.00% |
| Net pension contribution rate | 17.92% | 11.79% | 16.59% |
| Retiree Healthcare | | | |
| Normal cost rate | 0.07% | 0.00% | 0.00% |
| UAL rate | 0.43% | 0.43% | 0.43% |
| Net retiree healthcare rate | 0.50% | 0.43% | 0.43% |
| Total net employer contribution rate | 18.42% | 12.22% | 17.02% |

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 78%.

| Funded Status as of December 31, 2015 | 70% to 130% | Under 60% or Over 140% |
|--|--------------------|-------------------------------|
| 2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate | 13.91% | 13.91% |
| Minimum 2017-2019 Rate | 10.91% | 7.91% |
| Maximum 2017-2019 Rate | 16.91% | 19.91% |

Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b - a) | Funded Ratio (a ÷ b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a) ÷ c) |
|--------------------------|-------------------------------|---------------------------------------|----------------------|----------------------|---------------------|---|
| 12/31/2009 | \$151,074 | \$216,670 | \$65,596 | 70% | \$138,874 | 47% |
| 12/31/2010 | 168,693 | 228,660 | 59,967 | 74% | 139,258 | 43% |
| 12/31/2011 | 170,661 | 234,713 | 64,052 | 73% | 138,822 | 46% |
| 12/31/2012 | 204,010 | 269,846 | 65,836 | 76% | 143,212 | 46% |
| 12/31/2013 | 243,389 | 280,556 | 37,167 | 87% | 144,040 | 26% |
| 12/31/2014 | 267,042 | 343,278 | 76,236 | 78% | 149,211 | 51% |

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

| | Payroll | | |
|-------------------------------|-----------------|-----------------|---------------|
| | Tier 1 / Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| July 1, 2013 to June 30, 2015 | 0.59% | 0.49% | 0.49% |
| July 1, 2015 to June 30, 2017 | 0.53% | 0.45% | 0.45% |

Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Winchester Bay Sanitary District

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| T1/T2 UAL | \$76,236 | \$37,167 |
| Allocated pooled OPSRP UAL | 17,058 | 10,185 |
| Side account | 0 | 0 |
| Net unfunded pension actuarial accrued liability | 93,294 | 47,352 |
| Combined valuation payroll | 149,211 | 144,040 |
| Net pension UAL as a percentage of payroll | 63% | 33% |
| Calculated side account rate relief | 0.00% | 0.00% |
| Allocated pooled RHIA UAL | \$1,186 | \$1,994 |

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| Normal cost | \$14,968 | \$12,175 |
| Tier 1/Tier 2 valuation payroll | 105,198 | 102,436 |
| Tier 1/Tier 2 pension normal cost rate | 14.23% | 11.89% |
| Tier 1/ Tier 2 Actuarial accrued liability | \$343,278 | \$280,556 |
| Actuarial asset value | 267,042 | 243,389 |
| Tier 1/Tier 2 Unfunded actuarial accrued liability | 76,236 | 37,167 |
| Tier 1/ Tier 2 Funded status | 78% | 87% |
| Combined valuation payroll | \$149,211 | \$144,040 |
| Tier 1/Tier 2 UAL as a percentage of payroll | 51% | 26% |
| Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10) | 2.68% | 2.02% |
| Tier 1/Tier 2 active members ¹ | 2 | 2 |
| Tier 1/Tier 2 dormant members | 0 | 0 |
| Tier 1/Tier 2 retirees and beneficiaries | 2 | 3 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Executive Summary

Principal Valuation Results (continued)

OPSRP

| (\$ in millions) | Actuarial Valuation as of | |
|---|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| General service normal cost | \$301.3 | \$234.7 |
| OPSRP general service valuation payroll | 3,720.4 | 3,200.0 |
| General service normal cost rate | 8.10% | 7.33% |
| Police and fire normal cost | \$59.6 | \$45.5 |
| OPSRP police and fire valuation payroll | 462.3 | 398.1 |
| Police and fire normal cost rate | 12.90% | 11.44% |
| Actuarial accrued liability | \$3,064.1 | \$2,243.3 |
| Actuarial asset value | 2,024.6 | 1,630.2 |
| Unfunded actuarial accrued liability | 1,039.5 | 613.2 |
| Funded status | 66% | 73% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 11% | 7% |
| UAL rate | 1.01% | 0.61% |

Retiree Healthcare

| (\$ in millions) | Actuarial Valuation as of | |
|--------------------------------------|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| RHIA | | |
| Normal cost | \$3.5 | \$4.0 |
| Tier 1 / Tier 2 valuation payroll | 4,933.1 | 5,073.7 |
| Normal cost rate | 0.07% | 0.08% |
| Actuarial accrued liability | \$468.4 | \$473.6 |
| Actuarial asset value | 395.9 | 353.5 |
| Unfunded actuarial accrued liability | 72.5 | 120.0 |
| Funded status | 85% | 75% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 1% | 1% |
| UAL rate | 0.43% | 0.45% |

Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

| | New | Continuing | Total |
|---|------------|------------|-------|
| 1. Side account as of December 31, 2013 | N/A | | |
| 2. Deposits made during 2014 | | N/A | |
| 3. Administrative expenses | | | |
| 4. Amount transferred to employer reserves during 2014 | | | |
| 5. Side account earnings during 2014 | | | |
| 6. Side account as of December 31, 2014 (1. + 2. + 3. + 4. + 5.) | | | |

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Total side account | \$0 | \$0 |
| 2. Combined valuation payroll | 149,211 | 144,040 |
| 3. Amortization factor | 10.118 | 10.703 |
| 4. Total side account rate (-1. ÷ 2. ÷ 3.)¹ | 0.00% | 0.00% |

¹ For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.

Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Member reserves | \$20,778 | \$19,446 |
| 2. Employer reserves | 187,257 | 160,300 |
| 3. Benefits in force reserve | 59,007 | 63,642 |
| 4. Total market value of assets (1. + 2. + 3.) | \$267,042 | \$243,389 |

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

| | December 31, 2013 to December 31, 2014 |
|---|---|
| 1. Market value of assets at beginning of year | \$243,389 |
| 2. Regular employer contributions | 14,402 |
| 3. Benefit payments and expense | (9,745) |
| 4. Adjustments ¹ | 952 |
| 5. Interest credited | 18,044 |
| 6. Total transferred from side accounts | 0 |
| 7. Market value of assets at end of year (1. + 2. + 3. + 4. + 5. + 6.) | \$267,042 |

¹ Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|------------------------|-------------------|-------------------|
| Tier 1 Police & Fire | \$0 | \$0 |
| Tier 1 General Service | 0 | 0 |
| Tier 2 Police & Fire | 0 | 0 |
| Tier 2 General Service | 14,968 | 12,175 |
| Total | \$14,968 | \$12,175 |

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-------------|----------------|---------------|------------|
| Normal Cost | \$12,581 | \$14,968 | \$2,387 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| Active Members | | |
| ▪ Tier 1 Police & Fire | \$0 | \$0 |
| ▪ Tier 1 General Service | 0 | 0 |
| ▪ Tier 2 Police & Fire | 0 | 0 |
| ▪ Tier 2 General Service | 228,806 | 177,967 |
| ▪ Total Active Members | \$228,806 | \$177,967 |
| Dormant Members | 0 | 0 |
| Retired Members and Beneficiaries | 114,472 | 102,589 |
| Total Actuarial Accrued Liability | \$343,278 | \$280,556 |

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-----------------------------|-------------------|------------------|---------------|
| Actuarial Accrued Liability | \$301,398 | \$343,278 | \$41,880 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Actuarial accrued liability | \$343,278 | \$280,556 |
| 2. Actuarial value of assets | 267,042 | 243,389 |
| 3. Unfunded accrued liability (1. – 2.) | 76,236 | 37,167 |
| 4. Funded percentage (2. ÷ 1.) | 78% | 87% |
| 5. Combined valuation payroll | \$149,211 | \$144,040 |
| 6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.) | 51% | 26% |

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

| Amortization Base | UAL December 31, 2013 | Payment | Interest | UAL December 31, 2014 | Next Year's Payment |
|-------------------|--------------------------|---------|----------|--------------------------|------------------------|
| December 31, 2013 | \$37,167 | \$2,690 | \$2,769 | \$37,246 | \$2,790 |
| December 31, 2014 | N/A | N/A | N/A | \$38,990 | \$2,821 |
| Total | | | | \$76,236 | \$5,611 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

| | |
|--|----------------|
| 1. Expected actuarial accrued liability | |
| a. Actuarial accrued liability at December 31, 2013 | \$280,556 |
| b. Normal cost at December 31, 2013 | 12,175 |
| c. Benefit payments during 2014 | (9,670) |
| d. Interest at 7.75% to December 31, 2014 | 21,840 |
| e. Expected actuarial accrued liability before changes (a. + b. + c. + d.) | 304,901 |
| f. Change in actuarial accrued liability due to assumption, method, and plan changes | 41,880 |
| g. Expected actuarial accrued liability at December 31, 2014 (e. + f.) | 346,781 |
| 2. Actuarial accrued liability at December 31, 2014 | 343,278 |
| 3. Gain/(loss) on actuarial accrued liability (1.g. - 2.) | 3,503 |
| 4. Expected actuarial value of assets | |
| a. Actuarial value of assets at December 31, 2013 | 243,389 |
| b. Contributions for 2014 ¹ | 14,402 |
| c. Benefit payments and expenses during 2014 | (9,745) |
| d. Interest at 7.75% to December 31, 2014 | 19,043 |
| e. Expected actuarial value of assets at December 31, 2014 (a. + b. + c. + d.) | 267,088 |
| 5. Actuarial value of assets at December 31, 2014 | 267,042 |
| 6. Gain/(loss) on actuarial value of assets (5. - 4.e.) | (47) |
| 7. Total actuarial gain/(loss) (3. + 6.) | \$3,456 |

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

| | |
|---|-----------------|
| 1. UAL at December 31, 2013 | \$37,167 |
| 2. Expected increase | 645 |
| 3. Liability (gain)/loss | (3,503) |
| 4. Asset (gain)/loss | 47 |
| 5. Change due to changes in assumptions, methods, and plan provisions | 41,880 |
| 6. UAL at December 31, 2014 (1. + 2. + 3. + 4. + 5.) | \$76,236 |

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

| | December 31, 2014 | | | December 31, 2013 | | |
|------------------------|-------------------|--|------------------|-------------------|--|------------------|
| | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate |
| Tier 1 Police & Fire | \$0 | \$0 | 0.00% | \$0 | \$0 | 0.00% |
| Tier 1 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 Police & Fire | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 General Service | 14,968 | 105,198 | 14.23% | 12,175 | 102,436 | 11.89% |
| Total | \$14,968 | \$105,198 | 14.23% | \$12,175 | \$102,436 | 11.89% |

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Total Tier 1/Tier 2 UAL | \$76,236 | \$37,167 |
| 2. Next year's Tier 1/Tier 2 UAL payment | 5,611 | 2,690 |
| 3. Combined valuation payroll | 149,211 | 144,040 |
| 4. Tier 1/Tier 2 UAL rate (2. ÷ 3.) | 3.76% | 1.87% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|---|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 14.23% | 11.89% |
| b. Tier 1/Tier 2 UAL rate | 3.76% | 1.87% |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate (a. + b. + c.) | 18.14% | 13.91% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

| | |
|--|---------|
| 1. Current net Tier 1/Tier 2 pension contribution rate | 13.91% |
| 2. Employer contribution rate attributable to side accounts | 0.00% |
| 3. Current employer Tier 1/Tier 2 pension contribution rate (1. – 2.) | 13.91% |
| 4. Size of rate collar | |
| a. 20% of current employer contribution rate (20% x 3.) | 2.78% |
| b. Preliminary size of rate collar (maximum of 3% or a.) | 3.00% |
| c. Funded percentage | 78% |
| d. Size of rate collar (If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.) | 3.00% |
| 5. Advisory July 1, 2017 minimum employer contribution rate (3. – 4.d. but not < 0%) | 10.91% |
| 6. Advisory July 1, 2017 maximum employer contribution rate (3. + 4.d.) | 16.91% |
| 7. Advisory July 1, 2017 total pension rate, before adjustment | 18.14% |
| 8. Net adjustment due to rate collar (5. – 7., but not < 0, or 6. – 7., but not > 0) | (1.23%) |
| 9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar | 3.76% |
| 10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar (8. + 9.) | 2.53% |
| 11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar | 16.91% |
| 12. Tier 1/Tier 2 retiree healthcare rate | 0.50% |
| 13. Net adjustment due to 6% minimum (6% - 11. - 12., minimum 0%) | 0.00% |
| 14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment | 14.23% |
| 15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment (13. + 14.) | 14.23% |
| 16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment (11. + 13.) | 16.91% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|--|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 14.23% | 11.89% |
| b. Tier 1/Tier 2 UAL rate | 2.53% | 1.87% |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate <i>(a. + b. + c., minimum of 5.50%)</i> | 16.91% | 13.91% |

Data

Demographic Information

Employer Valuation Payroll

| | General Service | Police & Fire | Total |
|-----------------------------------|------------------|---------------|------------------|
| Tier 1 | \$0 | \$0 | \$0 |
| Tier 2 | 105,198 | 0 | 105,198 |
| Tier 1/Tier 2 valuation payroll | 105,198 | 0 | 105,198 |
| OPSRP valuation payroll | 44,013 | 0 | 44,013 |
| Combined valuation payroll | \$149,211 | \$0 | \$149,211 |

Employer Member Census

| | December 31 | | | | | | | |
|--|-------------|----------|----------|----------|----------|----------|----------|----------|
| | 2014 | | | | 2013 | | | |
| | Tier 1 | Tier 2 | OPSRP | Total | Tier 1 | Tier 2 | OPSRP | Total |
| Active Members ¹ | | | | | | | | |
| General Service | 0 | 2 | 1 | 3 | 0 | 2 | 1 | 3 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 2 | 1 | 3 | 0 | 2 | 1 | 3 |
| Active Members with previous service segments with the employer | | | | | | | | |
| General Service | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Police & Fire | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Total | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Dormant Members | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Retired Members and Beneficiaries | | | | | | | | |
| General Service | 2 | 0 | 0 | 2 | 3 | 0 | 0 | 3 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 2 | 0 | 0 | 2 | 3 | 0 | 0 | 3 |
| Grand Total Number of Members | 2 | 2 | 1 | 5 | 3 | 2 | 1 | 6 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

| Age | Years of Service | | | | | | | | | Total |
|--------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| <20 | | | | | | | | | | |
| 20-24 | | | | | | | | | | |
| 25-29 | | | | | | | | | | |
| 30-34 | | | | | | | | | | |
| 35-39 | | | | | | | | | | |
| 40-44 | | | | | | | | | | |
| 45-49 | | | | | | | | | | |
| 50-54 | | | | 1 | | | | | | 1 |
| 55-59 | | | | | | | | | | |
| 60-64 | | | 1 | | | | | | | 1 |
| 65-69 | | | | | | | | | | |
| 70-74 | | | | | | | | | | |
| 75+ | | | | | | | | | | |
| Total | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|-------|----------------------------------|-----------------------------------|----------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | | |
| 35-39 | | | 60-64 | | |
| 40-44 | | | 65-69 | 1 | 311 |
| 45-49 | | | 70-74 | | |
| 50-54 | | | 75-79 | | |
| 55-59 | | | 80-84 | 1 | 785 |
| 60-64 | | | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | | | Total | 2 | 548 |

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

| | |
|---|--|
| <i>Actuarial cost method</i> | Entry Age Normal. |
| <i>Amortization Method</i> | <p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.</p> |
| <i>Asset valuation method</i> | Market value of assets, excluding reserves. |
| <i>Contribution rate stabilization method (rate collar)</i> | <p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p> |

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

| | |
|--------------------------------------|--|
| <i>Net investment return</i> | 7.50% compounded annually on system assets. |
| <i>Interest crediting</i> | <p>7.50% compounded annually on members' regular account balances starting in 2015.</p> <p>7.50% compounded annually on members' variable account balances starting in 2015.</p> |
| <i>Consumer price inflation</i> | 2.50% per year. |
| <i>Future general wage inflation</i> | 3.50% per year. |
| <i>Healthcare cost inflation</i> | Ranging from 7.0% in 2015 to 4.4% in 2094. |
| <i>Administrative Expenses</i> | <p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p> |

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

Administrative expenses for the Tier 1/Tier 2 System are assumed to be \$33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called "funding method," a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

November 2015

Yamhill County/2015
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.



November 2015
Yamhill County/2015

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



November 2015
Yamhill County/2015

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Yamhill County -- #2015

November 2015

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Executive Summary

Milliman has prepared this report for Yamhill County to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Yamhill County.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Yamhill County

| | Payroll | | |
|---|---------------|-----------------|---------------|
| | Tier 1/Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| Pension | | | |
| Normal cost rate | 16.07% | 8.10% | 12.90% |
| Tier 1/Tier 2 UAL rate ¹ | (1.36%) | (1.36%) | (1.36%) |
| OPSRP UAL rate | 1.01% | 1.01% | 1.01% |
| Side account rate relief | 0.00% | 0.00% | 0.00% |
| Net pension contribution rate | 15.72% | 7.75% | 12.55% |
| Retiree Healthcare | | | |
| Normal cost rate | 0.07% | 0.00% | 0.00% |
| UAL rate | 0.43% | 0.43% | 0.43% |
| Net retiree healthcare rate | 0.50% | 0.43% | 0.43% |
| Total net employer contribution rate | 16.22% | 8.18% | 12.98% |

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 87%.

| Funded Status as of December 31, 2015 | 70% to 130% | Under 60% or Over 140% |
|--|--------------------|-------------------------------|
| 2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate | 11.71% | 11.71% |
| Minimum 2017-2019 Rate | 8.71% | 5.71% |
| Maximum 2017-2019 Rate | 14.71% | 17.71% |

Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b - a) | Funded Ratio (a ÷ b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a) ÷ c) |
|--------------------------|-------------------------------|---------------------------------------|----------------------|----------------------|---------------------|---|
| 12/31/2009 | \$46,262,877 | \$45,990,333 | (\$272,544) | 101% | \$21,770,669 | (1%) |
| 12/31/2010 | 50,594,864 | 50,082,170 | (512,694) | 101% | 22,476,974 | (2%) |
| 12/31/2011 | 49,368,116 | 53,073,411 | 3,705,295 | 93% | 21,695,391 | 17% |
| 12/31/2012 | 55,280,975 | 58,352,215 | 3,071,240 | 95% | 21,979,926 | 14% |
| 12/31/2013 | 61,606,382 | 62,439,555 | 833,172 | 99% | 22,587,423 | 4% |
| 12/31/2014 | 64,662,813 | 74,720,280 | 10,057,467 | 87% | 23,980,678 | 42% |

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

| | Payroll | | |
|-------------------------------|-----------------|-----------------|---------------|
| | Tier 1 / Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| July 1, 2013 to June 30, 2015 | 0.59% | 0.49% | 0.49% |
| July 1, 2015 to June 30, 2017 | 0.53% | 0.45% | 0.45% |

Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Yamhill County

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| T1/T2 UAL | \$10,057,467 | \$833,172 |
| Allocated pooled OPSRP UAL | 2,741,514 | 1,597,068 |
| Side account | 0 | 0 |
| Net unfunded pension actuarial accrued liability | 12,798,981 | 2,430,240 |
| Combined valuation payroll | 23,980,678 | 22,587,423 |
| Net pension UAL as a percentage of payroll | 53% | 11% |
| Calculated side account rate relief | 0.00% | 0.00% |
| Allocated pooled RHIA UAL | \$190,613 | \$312,634 |

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer's combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| Normal cost | \$1,822,249 | \$1,540,362 |
| Tier 1/Tier 2 valuation payroll | 11,342,126 | 11,931,610 |
| Tier 1/Tier 2 pension normal cost rate | 16.07% | 12.91% |
| Tier 1/ Tier 2 Actuarial accrued liability | \$74,720,280 | \$62,439,555 |
| Actuarial asset value | 64,662,813 | 61,606,383 |
| Tier 1/Tier 2 Unfunded actuarial accrued liability | 10,057,467 | 833,172 |
| Tier 1/ Tier 2 Funded status | 87% | 99% |
| Combined valuation payroll | \$23,980,678 | \$22,587,423 |
| Tier 1/Tier 2 UAL as a percentage of payroll | 42% | 4% |
| Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10) | (1.36%) | (1.20%) |
| Tier 1/Tier 2 active members ¹ | 179 | 193 |
| Tier 1/Tier 2 dormant members | 100 | 106 |
| Tier 1/Tier 2 retirees and beneficiaries | 200 | 182 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Executive Summary

Principal Valuation Results (continued)

OPSRP

| (\$ in millions) | Actuarial Valuation as of | |
|---|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| General service normal cost | \$301.3 | \$234.7 |
| OPSRP general service valuation payroll | 3,720.4 | 3,200.0 |
| General service normal cost rate | 8.10% | 7.33% |
| Police and fire normal cost | \$59.6 | \$45.5 |
| OPSRP police and fire valuation payroll | 462.3 | 398.1 |
| Police and fire normal cost rate | 12.90% | 11.44% |
| Actuarial accrued liability | \$3,064.1 | \$2,243.3 |
| Actuarial asset value | 2,024.6 | 1,630.2 |
| Unfunded actuarial accrued liability | 1,039.5 | 613.2 |
| Funded status | 66% | 73% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 11% | 7% |
| UAL rate | 1.01% | 0.61% |

Retiree Healthcare

| (\$ in millions) | Actuarial Valuation as of | |
|--------------------------------------|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| RHIA | | |
| Normal cost | \$3.5 | \$4.0 |
| Tier 1 / Tier 2 valuation payroll | 4,933.1 | 5,073.7 |
| Normal cost rate | 0.07% | 0.08% |
| Actuarial accrued liability | \$468.4 | \$473.6 |
| Actuarial asset value | 395.9 | 353.5 |
| Unfunded actuarial accrued liability | 72.5 | 120.0 |
| Funded status | 85% | 75% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 1% | 1% |
| UAL rate | 0.43% | 0.45% |

Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

| | New | Continuing | Total |
|---|------------|------------|-------|
| 1. Side account as of December 31, 2013 | N/A | | |
| 2. Deposits made during 2014 | | N/A | |
| 3. Administrative expenses | | | |
| 4. Amount transferred to employer reserves during 2014 | | | |
| 5. Side account earnings during 2014 | | | |
| 6. Side account as of December 31, 2014 (1. + 2. + 3. + 4. + 5.) | | | |

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Total side account | \$0 | \$0 |
| 2. Combined valuation payroll | 23,980,678 | 22,587,423 |
| 3. Amortization factor | 10.118 | 10.703 |
| 4. Total side account rate (-1. ÷ 2. ÷ 3.)¹ | 0.00% | 0.00% |

¹ For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.

Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

| | December 31, 2014 | December 31, 2013 |
|---|---------------------|---------------------|
| 1. Member reserves | \$8,118,709 | \$8,114,311 |
| 2. Employer reserves | 41,142,480 | 38,595,108 |
| 3. Benefits in force reserve | 15,401,624 | 14,896,964 |
| 4. Total market value of assets (1. + 2. + 3.) | \$64,662,813 | \$61,606,383 |

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

| | December 31, 2013 to December 31, 2014 |
|---|---|
| 1. Market value of assets at beginning of year | \$61,606,383 |
| 2. Regular employer contributions | 605,703 |
| 3. Benefit payments and expense | (2,543,693) |
| 4. Adjustments ¹ | 599,272 |
| 5. Interest credited | 4,395,149 |
| 6. Total transferred from side accounts | 0 |
| 7. Market value of assets at end of year (1. + 2. + 3. + 4. + 5. + 6.) | \$64,662,813 |

¹ Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|------------------------|--------------------|--------------------|
| Tier 1 Police & Fire | \$284,204 | \$243,639 |
| Tier 1 General Service | 114,960 | 106,496 |
| Tier 2 Police & Fire | 356,063 | 289,678 |
| Tier 2 General Service | 1,067,022 | 900,549 |
| Total | \$1,822,249 | \$1,540,362 |

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-------------|----------------|---------------|------------|
| Normal Cost | \$1,515,877 | \$1,822,249 | \$306,372 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|--|---------------------|---------------------|
| Active Members | | |
| ▪ Tier 1 Police & Fire | \$9,060,670 | \$8,096,696 |
| ▪ Tier 1 General Service | 2,130,589 | 2,171,405 |
| ▪ Tier 2 Police & Fire | 6,416,482 | 5,089,731 |
| ▪ Tier 2 General Service | 21,146,595 | 18,229,891 |
| ▪ Total Active Members | \$38,754,336 | \$33,587,723 |
| Dormant Members | 6,087,175 | 4,838,450 |
| Retired Members and Beneficiaries | 29,878,769 | 24,013,382 |
| Total Actuarial Accrued Liability | \$74,720,280 | \$62,439,555 |

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-----------------------------|-------------------|------------------|---------------|
| Actuarial Accrued Liability | \$65,738,491 | \$74,720,280 | \$8,981,789 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Actuarial accrued liability | \$74,720,280 | \$62,439,555 |
| 2. Actuarial value of assets | 64,662,813 | 61,606,383 |
| 3. Unfunded accrued liability (1. – 2.) | 10,057,467 | 833,172 |
| 4. Funded percentage (2. ÷ 1.) | 87% | 99% |
| 5. Combined valuation payroll | \$23,980,678 | \$22,587,423 |
| 6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.) | 42% | 4% |

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

| Amortization Base | UAL December 31, 2013 | Payment | Interest | UAL December 31, 2014 | Next Year's Payment |
|-------------------|--------------------------|----------|----------|--------------------------|------------------------|
| December 31, 2013 | \$833,172 | \$60,305 | \$62,083 | \$834,950 | \$62,543 |
| December 31, 2014 | N/A | N/A | N/A | \$9,222,517 | \$667,331 |
| Total | | | | \$10,057,467 | \$729,874 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

| | |
|--|------------------|
| 1. Expected actuarial accrued liability | |
| a. Actuarial accrued liability at December 31, 2013 | \$62,439,555 |
| b. Normal cost at December 31, 2013 | 1,540,362 |
| c. Benefit payments during 2014 | (2,524,101) |
| d. Interest at 7.75% to December 31, 2014 | 4,800,946 |
| e. Expected actuarial accrued liability before changes (a. + b. + c. + d.) | 66,256,762 |
| f. Change in actuarial accrued liability due to assumption, method, and plan changes | 8,981,789 |
| g. Expected actuarial accrued liability at December 31, 2014 (e. + f.) | 75,238,551 |
| 2. Actuarial accrued liability at December 31, 2014 | 74,720,280 |
| 3. Gain/(loss) on actuarial accrued liability (1.g. - 2.) | 518,271 |
| 4. Expected actuarial value of assets | |
| a. Actuarial value of assets at December 31, 2013 | 61,606,383 |
| b. Contributions for 2014 ¹ | 605,703 |
| c. Benefit payments and expenses during 2014 | (2,543,693) |
| d. Interest at 7.75% to December 31, 2014 | 4,699,398 |
| e. Expected actuarial value of assets at December 31, 2014 (a. + b. + c. + d.) | 64,367,790 |
| 5. Actuarial value of assets at December 31, 2014 | 64,662,813 |
| 6. Gain/(loss) on actuarial value of assets (5. - 4.e.) | 295,023 |
| 7. Total actuarial gain/(loss) (3. + 6.) | \$813,294 |

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

| | |
|---|---------------------|
| 1. UAL at December 31, 2013 | \$833,172 |
| 2. Expected increase | 1,055,800 |
| 3. Liability (gain)/loss | (518,271) |
| 4. Asset (gain)/loss | (295,023) |
| 5. Change due to changes in assumptions, methods, and plan provisions | 8,981,789 |
| 6. UAL at December 31, 2014 (1. + 2. + 3. + 4. + 5.) | \$10,057,467 |

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

| | December 31, 2014 | | | December 31, 2013 | | |
|------------------------|--------------------|--|------------------|--------------------|--|------------------|
| | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate |
| Tier 1 Police & Fire | \$284,204 | \$1,280,583 | 22.19% | \$243,639 | \$1,348,179 | 18.07% |
| Tier 1 General Service | 114,960 | 655,398 | 17.54% | 106,496 | 710,261 | 14.99% |
| Tier 2 Police & Fire | 356,063 | 1,866,809 | 19.07% | 289,678 | 1,868,543 | 15.50% |
| Tier 2 General Service | 1,067,022 | 7,539,336 | 14.15% | 900,549 | 8,004,627 | 11.25% |
| Total | \$1,822,249 | \$11,342,126 | 16.07% | \$1,540,362 | \$11,931,610 | 12.91% |

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Total Tier 1/Tier 2 UAL | \$10,057,467 | \$833,172 |
| 2. Next year's Tier 1/Tier 2 UAL payment | 729,874 | 60,305 |
| 3. Combined valuation payroll | 23,980,678 | 22,587,423 |
| 4. Tier 1/Tier 2 UAL rate (2. ÷ 3.) | 3.04% | 0.27% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|---|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 16.07% | 12.91% |
| b. Tier 1/Tier 2 UAL rate | 3.04% | 0.27% |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate (a. + b. + c.) | 19.26% | 13.33% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

| | |
|--|---------|
| 1. Current net Tier 1/Tier 2 pension contribution rate | 11.71% |
| 2. Employer contribution rate attributable to side accounts | 0.00% |
| 3. Current employer Tier 1/Tier 2 pension contribution rate (1. – 2.) | 11.71% |
| 4. Size of rate collar | |
| a. 20% of current employer contribution rate (20% x 3.) | 2.34% |
| b. Preliminary size of rate collar (maximum of 3% or a.) | 3.00% |
| c. Funded percentage | 87% |
| d. Size of rate collar (If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.) | 3.00% |
| 5. Advisory July 1, 2017 minimum employer contribution rate (3. – 4.d. but not < 0%) | 8.71% |
| 6. Advisory July 1, 2017 maximum employer contribution rate (3. + 4.d.) | 14.71% |
| 7. Advisory July 1, 2017 total pension rate, before adjustment | 19.26% |
| 8. Net adjustment due to rate collar (5. – 7., but not < 0, or 6. – 7., but not > 0) | (4.55%) |
| 9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar | 3.04% |
| 10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar (8. + 9.) | (1.51%) |
| 11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar | 14.71% |
| 12. Tier 1/Tier 2 retiree healthcare rate | 0.50% |
| 13. Net adjustment due to 6% minimum (6% - 11. - 12., minimum 0%) | 0.00% |
| 14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment | 16.07% |
| 15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment (13. + 14.) | 16.07% |
| 16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment (11. + 13.) | 14.71% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|--|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 16.07% | 12.91% |
| b. Tier 1/Tier 2 UAL rate | (1.51%) | (1.35%) |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate <i>(a. + b. + c., minimum of 5.50%)</i> | 14.71% | 11.71% |

Data

Demographic Information

Employer Valuation Payroll

| | General Service | Police & Fire | Total |
|-----------------------------------|---------------------|--------------------|---------------------|
| Tier 1 | \$655,398 | \$1,280,583 | \$1,935,981 |
| Tier 2 | 7,539,336 | 1,866,809 | 9,406,145 |
| Tier 1/Tier 2 valuation payroll | 8,194,734 | 3,147,392 | 11,342,126 |
| OPSRP valuation payroll | 10,020,097 | 2,618,455 | 12,638,552 |
| Combined valuation payroll | \$18,214,831 | \$5,765,847 | \$23,980,678 |

Employer Member Census

| | December 31 | | | | | | | |
|--|-------------|------------|------------|------------|------------|------------|------------|------------|
| | 2014 | | | | 2013 | | | |
| | Tier 1 | Tier 2 | OPSRP | Total | Tier 1 | Tier 2 | OPSRP | Total |
| Active Members ¹ | | | | | | | | |
| General Service | 12 | 128 | 241 | 381 | 14 | 138 | 205 | 357 |
| Police & Fire | 15 | 24 | 40 | 79 | 16 | 25 | 37 | 78 |
| Total | 27 | 152 | 281 | 460 | 30 | 163 | 242 | 435 |
| Active Members with previous service segments with the employer | | | | | | | | |
| General Service | 20 | 63 | N/A | 83 | 20 | 57 | N/A | 77 |
| Police & Fire | 12 | 20 | N/A | 32 | 14 | 19 | N/A | 33 |
| Total | 32 | 83 | N/A | 115 | 34 | 76 | N/A | 110 |
| Dormant Members | | | | | | | | |
| General Service | 13 | 69 | 16 | 98 | 16 | 72 | 12 | 100 |
| Police & Fire | 9 | 9 | 5 | 23 | 8 | 10 | 4 | 22 |
| Total | 22 | 78 | 21 | 121 | 24 | 82 | 16 | 122 |
| Retired Members and Beneficiaries | | | | | | | | |
| General Service | 30 | 103 | 5 | 138 | 25 | 92 | 2 | 119 |
| Police & Fire | 64 | 3 | 0 | 67 | 62 | 3 | 0 | 65 |
| Total | 94 | 106 | 5 | 205 | 87 | 95 | 2 | 184 |
| Grand Total Number of Members | 175 | 419 | 307 | 901 | 175 | 416 | 260 | 851 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

| Age | Years of Service | | | | | | | | | Total |
|--------------|------------------|----------|-----------|------------|-----------|----------|----------|----------|----------|------------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| <20 | | | | | | | | | | |
| 20-24 | | | | | | | | | | |
| 25-29 | | | | | | | | | | |
| 30-34 | | | 2 | | | | | | | 2 |
| 35-39 | | | 12 | 5 | | | | | | 17 |
| 40-44 | | 1 | 7 | 8 | 2 | | | | | 18 |
| 45-49 | | 1 | 10 | 22 | 8 | | | | | 41 |
| 50-54 | 1 | 1 | 4 | 16 | 2 | 5 | 1 | | | 30 |
| 55-59 | | | 6 | 25 | | 1 | | | | 32 |
| 60-64 | | 1 | 6 | 22 | | | 1 | | | 30 |
| 65-69 | | 1 | 1 | 5 | | | | | | 7 |
| 70-74 | | | | 1 | | | | | | 1 |
| 75+ | | | 1 | | | | | | | 1 |
| Total | 1 | 5 | 49 | 104 | 12 | 6 | 2 | 0 | 0 | 179 |

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|------------|----------------------------------|-----------------------------------|------------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | 2 | 650 |
| 20-24 | | | 45-49 | 3 | 258 |
| 25-29 | | | 50-54 | 9 | 1,516 |
| 30-34 | 2 | 542 | 55-59 | 13 | 1,453 |
| 35-39 | 9 | 593 | 60-64 | 35 | 979 |
| 40-44 | 13 | 580 | 65-69 | 67 | 1,012 |
| 45-49 | 11 | 475 | 70-74 | 39 | 734 |
| 50-54 | 15 | 1,290 | 75-79 | 26 | 535 |
| 55-59 | 21 | 400 | 80-84 | 3 | 757 |
| 60-64 | 19 | 433 | 85-89 | 3 | 1,457 |
| 65-69 | 9 | 355 | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | 1 | 1,314 | 100+ | | |
| Total | 100 | 597 | Total | 200 | 929 |

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

| | |
|---|--|
| <i>Actuarial cost method</i> | Entry Age Normal. |
| <i>Amortization Method</i> | <p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.</p> |
| <i>Asset valuation method</i> | Market value of assets, excluding reserves. |
| <i>Contribution rate stabilization method (rate collar)</i> | <p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p> |

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

| | |
|--------------------------------------|--|
| <i>Net investment return</i> | 7.50% compounded annually on system assets. |
| <i>Interest crediting</i> | <p>7.50% compounded annually on members' regular account balances starting in 2015.</p> <p>7.50% compounded annually on members' variable account balances starting in 2015.</p> |
| <i>Consumer price inflation</i> | 2.50% per year. |
| <i>Future general wage inflation</i> | 3.50% per year. |
| <i>Healthcare cost inflation</i> | Ranging from 7.0% in 2015 to 4.4% in 2094. |
| <i>Administrative Expenses</i> | <p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p> |

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

Administrative expenses for the Tier 1/Tier 2 System are assumed to be \$33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called “funding method,” a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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This work product was prepared solely for Oregon Public Employees Retirement System for the purposes stated herein, and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

November 2015

Yamhill Fire Protection District/2878
Oregon Public Employees Retirement System

Dear Sir or Madam:

As part of our engagement with the Oregon Public Employees Retirement Board, we performed a system-wide actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2014. Information is also provided to assist you in preparing your required financial reporting disclosures under Statement 45 of the Governmental Accounting Standards Board. GASB 68 information will be provided separately by PERS and is not included in this report.

This valuation is advisory and does not affect employer contribution rates. Employer contribution rates effective July 1, 2017 through June 30, 2019 will be calculated in the December 31, 2015 actuarial valuation.

This report reflects the System's benefit provisions in effect as of December 31, 2014, as adjusted for the Oregon Supreme Court decision announced in April 2015. The full development of the valuation results for the OPSRP and Retiree Health Insurance Account (RHIA) programs can be found in the separate system-wide actuarial valuation report. Costs of the IAP (Individual Account Program) are not included in this or the system-wide actuarial valuation report. Further, costs of pension obligation bond payments are not included in this or the system-wide actuarial valuation report.

If you have any questions about this report, please contact Debra Hembree, Actuarial Services Coordinator at Oregon PERS, at 503 603 7704 or Debra.Hembree@state.or.us.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll,
- Information to assist you in completing GASB 45 financial reporting requirements, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Side account balances, transactions and rate relief,
- Detailed development of Tier 1/Tier 2 valuation results,
- A brief summary of methods and assumptions, and
- A brief summary of recent changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/section/financial_reports/financials.shtml.



November 2015
Yamhill Fire Protection District/2878

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System's staff. This information includes, but is not limited to, System benefit provisions as defined by statute, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations); and which, in combination, offer a reasonable estimate of anticipated experience affecting the System.

A valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While a valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System's funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in September 2015.

Some of the actuarial computations presented in this report are for purposes of estimating the contribution rates effective from July 2017 to June 2019 for System employers. Other actuarial computations presented in this report under GASB Statement No. 45 are for purposes of assisting System employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions described in the appendixes of this report, and of GASB Statement No. 45. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.



November 2015
Yamhill Fire Protection District/2878

This report is prepared solely for the use and benefit of the Oregon Public Employees Retirement System, the employer named above, or its auditors solely for the purpose of completing an audit related to the matters herein. To the extent that this report is not subject to disclosure under applicable public records laws, it may not be provided to other third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of this report. Milliman's consent to release this report to any third party may be conditioned on the third party signing a release except for situations where such release is prohibited by law.

No third party recipient of this report should rely upon Milliman's work contained herein. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the System. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Additional information is provided in the system-wide actuarial valuation report.

Sincerely,

A handwritten signature in black ink, appearing to read "Matt Larrabee".

Matt Larrabee, FSA, EA, MAAA
Principal and Consulting Actuary

A handwritten signature in black ink, appearing to read "Scott Preppernau".

Scott Preppernau, FSA, EA, MAAA
Principal and Consulting Actuary



ACTUARIAL VALUATION REPORT DECEMBER 31, 2014

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

INDEPENDENT EMPLOYERS

Yamhill Fire Protection District -- #2878

November 2015

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Executive Summary

Milliman has prepared this report for Yamhill Fire Protection District to:

- Provide summary December 31, 2014 valuation results for the Oregon Public Service Retirement Plan (OPSRP) and the Retiree Health Insurance Account (RHIA),
- Provide advisory information calculated as of December 31, 2014 on estimated employer-specific contribution rates effective July 1, 2017 through June 30, 2019,
- Provide employer-specific valuation results for side accounts and Tier 1/Tier 2 assets and liabilities as of December 31, 2014, and
- Provide reporting and disclosure information for financial statements for governmental agencies and pursuant to GASB Statement Number 45. GASB 68 information will be provided separately by PERS and is not included in this report.

This report summarizes the valuation results for the OPSRP and RHIA. The full development of these results can be found in the December 31, 2014 system-wide actuarial valuation report. This report develops advisory employer-specific Tier 1/Tier 2 and side account rates and applies the results from the system-wide valuation to Yamhill Fire Protection District.

Employer Contribution Rates

The following table summarizes the employer contribution rates calculated as of December 31, 2014 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2017 - 2019 Employer Rates Calculated as of December 31, 2014 for Yamhill Fire Protection District

| | Payroll | | |
|---|---------------|-----------------|---------------|
| | Tier 1/Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| Pension | | | |
| Normal cost rate | 17.01% | 8.10% | 12.90% |
| Tier 1/Tier 2 UAL rate ¹ | 0.15% | 0.15% | 0.15% |
| OPSRP UAL rate | 1.01% | 1.01% | 1.01% |
| Side account rate relief | 0.00% | 0.00% | 0.00% |
| Net pension contribution rate | 18.17% | 9.26% | 14.06% |
| Retiree Healthcare | | | |
| Normal cost rate | 0.07% | 0.00% | 0.00% |
| UAL rate | 0.43% | 0.43% | 0.43% |
| Net retiree healthcare rate | 0.50% | 0.43% | 0.43% |
| Total net employer contribution rate | 18.67% | 9.69% | 14.49% |

In this report, the payroll of Tier 1 and Tier 2 members is referred to as Tier 1/Tier 2 valuation payroll. Combined valuation payroll refers to the payroll for Tier 1/Tier 2 members, OPSRP general service members and OPSRP police and fire members.

¹ Includes Multnomah Fire District #10 rate.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 Employer Pension Contribution Rates for the July 2017 to June 2019 Biennium

The rate collar limits changes in contribution rates, but does not limit changes in rates for individual employers related to side accounts. The table below shows the possible minimum and maximum rates first effective as of July 1, 2017, which will depend on the funded status as of December 31, 2015. If the employer's funded status excluding side accounts is less than 60 percent or greater than 140 percent, the rate collar doubles in size. If the employer's funded status excluding side accounts is between 60 and 70 percent or between 130 and 140 percent, the size of the rate collar is increased on a graded scale. Also, please note that by Board policy, independent employers with less than 2,500 employees cannot have a Tier 1/Tier 2 pension rate less than 6 percent of payroll (excludes side accounts and OPSRP UAL rates). The rates shown are before any adjustment for side account offsets or the 6 percent minimum independent employer contribution rate.

For comparison, the funded status as of December 31, 2014 is 100%.

| Funded Status as of December 31, 2015 | 70% to 130% | Under 60% or Over 140% |
|--|--------------------|-------------------------------|
| 2015-2017 Normal Cost + Tier 1/Tier 2 UAL Rate | 14.39% | 14.39% |
| Minimum 2017-2019 Rate | 11.39% | 8.39% |
| Maximum 2017-2019 Rate | 17.39% | 20.39% |

Executive Summary

Accounting Information

Milliman is not an accounting or audit firm and cannot provide accounting advice. Milliman is not responsible for the interpretation of, or compliance with, accounting standards; citations to, and descriptions of accounting standards provided in this report are for reference purposes only. The information provided in this section is intended to assist the employer in completing its financial statements, but any accounting determination should be reviewed by your auditor.

Pension

In June 2012 the GASB issued Statement No. 68, which replaced GASB 27 and governs employer financial reporting for fiscal years beginning after June 15, 2014. The new standard replaced many of the key elements of the prior reporting requirements. Under the new rules, employers are required to record a balance sheet liability for their unfunded pension obligations. In addition, the timing and coordination of plan and employer reporting has changed under the new requirements. GASB 68 information for employers will be provided separately by PERS going forward and is not included in this report.

Executive Summary

Accounting Information (continued)

Schedule of Funding Progress

Under GASB 27, the Schedule of Funding Progress for Tier 1/Tier 2 pension liabilities was reported in the Required Supplementary Information. This schedule is no longer required now that GASB 68 has replaced GASB 27. However, for additional information and the sake of historical comparison, the updated schedule is shown below for the last several valuations. For employers with side accounts, the actuarial value of assets in this Schedule includes the value of the employer's side accounts.

| Actuarial Valuation Date | Actuarial Value of Assets (a) | Actuarial Accrued Liability (AAL) (b) | Unfunded AAL (b - a) | Funded Ratio (a ÷ b) | Covered Payroll (c) | UAAL as a Percentage of Covered Payroll ((b-a) ÷ c) |
|--------------------------|-------------------------------|---------------------------------------|----------------------|----------------------|---------------------|---|
| 12/31/2009 | \$0 | \$0 | \$0 | 0% | \$0 | 0% |
| 12/31/2010 | 0 | 0 | 0 | 0% | 0 | 0% |
| 12/31/2011 | 0 | 0 | 0 | 0% | 0 | 0% |
| 12/31/2012 | 0 | 0 | 0 | 0% | 31,785 | 0% |
| 12/31/2013 | 1 | 0 | (1) | 100% | 74,622 | 0% |
| 12/31/2014 | 4 | 0 | (4) | 0% | 113,496 | 0% |

Retiree Healthcare

The Retiree Health Insurance Account (RHIA) is a cost-sharing pool under Statement No. 45 of the Governmental Accounting Standards Board (GASB 45). Consequently, each employer reports the contractually required contribution. The contractually required contribution for retiree healthcare liabilities for the period July 1, 2015 through June 30, 2017 was calculated as a part of the December 31, 2013 valuation, and is expressed as contribution rates that are applied to the appropriate payroll. The rates and appropriate payroll are shown in the table below.

Contractually Required Contribution Rate

| | Payroll | | |
|-------------------------------|-----------------|-----------------|---------------|
| | Tier 1 / Tier 2 | OPSRP | |
| | | General Service | Police & Fire |
| July 1, 2013 to June 30, 2015 | 0.59% | 0.49% | 0.49% |
| July 1, 2015 to June 30, 2017 | 0.53% | 0.45% | 0.45% |

Executive Summary

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described later in this report. More detailed information can be found in the system-wide actuarial valuation report.

Yamhill Fire Protection District

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| T1/T2 UAL | (\$4) | (\$1) |
| Allocated pooled OPSRP UAL | 12,975 | 5,276 |
| Side account | 0 | 0 |
| Net unfunded pension actuarial accrued liability | 12,971 | 5,275 |
| Combined valuation payroll | 113,496 | 74,622 |
| Net pension UAL as a percentage of payroll | 11% | 7% |
| Calculated side account rate relief | 0.00% | 0.00% |
| Allocated pooled RHIA UAL | \$902 | \$1,033 |

In the above exhibit, UAL amounts for the pools (OPSRP and RHIA) are allocated pro-rata based on the ratio of an employer’s combined valuation payroll to that of the applicable pool. Pool total results are summarized on page 7 of this report. Allocated amounts shown above differ from the proportionate share of Net Pension Liability (NPL) that will be allocated to employers under GASB 68.

Executive Summary

Principal Valuation Results (continued)

Tier 1/Tier 2

| | Actuarial Valuation as of | |
|--|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| Normal cost | \$0 | \$0 |
| Tier 1/Tier 2 valuation payroll | 0 | 0 |
| Tier 1/Tier 2 pension normal cost rate | 17.01% | 14.24% |
| Tier 1/ Tier 2 Actuarial accrued liability | \$0 | \$0 |
| Actuarial asset value | 4 | 1 |
| Tier 1/Tier 2 Unfunded actuarial accrued liability | (4) | (1) |
| Tier 1/ Tier 2 Funded status | 0% | 0% |
| Combined valuation payroll | \$113,496 | \$74,622 |
| Tier 1/Tier 2 UAL as a percentage of payroll | 0% | 0% |
| Tier 1/Tier 2 UAL rate (includes Multnomah Fire District #10) | 0.15% | 0.15% |
| Tier 1/Tier 2 active members ¹ | 0 | 0 |
| Tier 1/Tier 2 dormant members | 0 | 0 |
| Tier 1/Tier 2 retirees and beneficiaries | 0 | 0 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Executive Summary

Principal Valuation Results (continued)

OPSRP

| (\$ in millions) | Actuarial Valuation as of | |
|---|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| General service normal cost | \$301.3 | \$234.7 |
| OPSRP general service valuation payroll | 3,720.4 | 3,200.0 |
| General service normal cost rate | 8.10% | 7.33% |
| Police and fire normal cost | \$59.6 | \$45.5 |
| OPSRP police and fire valuation payroll | 462.3 | 398.1 |
| Police and fire normal cost rate | 12.90% | 11.44% |
| Actuarial accrued liability | \$3,064.1 | \$2,243.3 |
| Actuarial asset value | 2,024.6 | 1,630.2 |
| Unfunded actuarial accrued liability | 1,039.5 | 613.2 |
| Funded status | 66% | 73% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 11% | 7% |
| UAL rate | 1.01% | 0.61% |

Retiree Healthcare

| (\$ in millions) | Actuarial Valuation as of | |
|--------------------------------------|---------------------------|-------------------|
| | December 31, 2014 | December 31, 2013 |
| RHIA | | |
| Normal cost | \$3.5 | \$4.0 |
| Tier 1 / Tier 2 valuation payroll | 4,933.1 | 5,073.7 |
| Normal cost rate | 0.07% | 0.08% |
| Actuarial accrued liability | \$468.4 | \$473.6 |
| Actuarial asset value | 395.9 | 353.5 |
| Unfunded actuarial accrued liability | 72.5 | 120.0 |
| Funded status | 85% | 75% |
| Combined valuation payroll | \$9,115.8 | \$8,671.8 |
| UAL as a percentage of payroll | 1% | 1% |
| UAL rate | 0.43% | 0.45% |

Side Account Information

Reconciliation of Side Accounts

The following table reconciles the total side account from the beginning of the year to the end of the year. Side account transfers were calculated by PERS and made on a monthly basis. The amount of these transfers is shown in the table below.

All information in this table has been provided by PERS.

| | New | Continuing | Total |
|---|------------|------------|-------|
| 1. Side account as of December 31, 2013 | N/A | | |
| 2. Deposits made during 2014 | | N/A | |
| 3. Administrative expenses | | | |
| 4. Amount transferred to employer reserves during 2014 | | | |
| 5. Side account earnings during 2014 | | | |
| 6. Side account as of December 31, 2014 (1. + 2. + 3. + 4. + 5.) | | | |

Side Account Information

Side Account Balances

| | December 31, 2014 | December 31, 2013 |
|----------------|-------------------|-------------------|
| Side account 1 | \$0 | \$0 |
| Side account 2 | 0 | 0 |
| Side account 3 | 0 | 0 |
| Total | \$0 | \$0 |

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the fixed period ends 18 years after the first rate-setting valuation following its creation.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Total side account | \$0 | \$0 |
| 2. Combined valuation payroll | 113,496 | 74,622 |
| 3. Amortization factor | 10.118 | 10.703 |
| 4. Total side account rate (-1. ÷ 2. ÷ 3.)¹ | 0.00% | 0.00% |

¹ For employers with more than one side account, the Total Side Account Rate is determined by calculating the rate on each side account separately and adding the rates together.

Tier 1/Tier 2 Valuation Results

Assets

A summary of the market value of pension assets, and reconciliation from the prior year are shown below.

Summary of Market Value of Tier 1/Tier 2 Pension Assets

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Member reserves | \$0 | \$0 |
| 2. Employer reserves | 4 | 1 |
| 3. Benefits in force reserve | 0 | 0 |
| 4. Total market value of assets (1. + 2. + 3.) | \$4 | \$1 |

The market value of member and employer reserves is provided by PERS. The benefits in force reserve provided by PERS is allocated each year among employers in proportion to their liabilities for benefits in force.

Reconciliation of Tier 1/Tier 2 Pension Assets

| | December 31, 2013 to December 31, 2014 |
|---|---|
| 1. Market value of assets at beginning of year | \$1 |
| 2. Regular employer contributions | 118 |
| 3. Benefit payments and expense | 0 |
| 4. Adjustments ¹ | (130) |
| 5. Interest credited | 15 |
| 6. Total transferred from side accounts | 0 |
| 7. Market value of assets at end of year (1. + 2. + 3. + 4. + 5. + 6.) | \$4 |

¹ Note the adjustment item above includes a reallocation of the benefits in force reserve, transfers to Multnomah Fire District #10, and other adjustments made by PERS.

Tier 1/Tier 2 Valuation Results

Liabilities

Normal Cost

The normal cost represents the value of benefits assigned to the next year of service by the actuarial cost method. If all actuarial assumptions are met, the normal cost represents the amount that would need to be contributed each year to fund plan benefits.

Summary of Normal Cost by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|------------------------|-------------------|-------------------|
| Tier 1 Police & Fire | \$0 | \$0 |
| Tier 1 General Service | 0 | 0 |
| Tier 2 Police & Fire | 0 | 0 |
| Tier 2 General Service | 0 | 0 |
| Total | \$0 | \$0 |

Change in Tier 1/Tier 2 Normal Cost Due to Changes

The following table shows the impact of the assumption, method, and plan changes on normal cost as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-------------|----------------|---------------|------------|
| Normal Cost | \$0 | \$0 | \$0 |

Tier 1/Tier 2 Valuation Results

Liabilities

Actuarial Accrued Liability

The actuarial accrued liability represents the value of benefits allocated to service performed before the valuation date by the actuarial cost method. If all actuarial assumptions are met, the actuarial accrued liability represents the amount of assets that would need to be accumulated as of the valuation date to provide for the portion of benefits allocated to service already performed.

Summary of Actuarial Accrued Liability by Tier/Member Classification

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| Active Members | | |
| ▪ Tier 1 Police & Fire | \$0 | \$0 |
| ▪ Tier 1 General Service | 0 | 0 |
| ▪ Tier 2 Police & Fire | 0 | 0 |
| ▪ Tier 2 General Service | 0 | 0 |
| ▪ Total Active Members | \$0 | \$0 |
| Dormant Members | 0 | 0 |
| Retired Members and Beneficiaries | 0 | 0 |
| Total Actuarial Accrued Liability | \$0 | \$0 |

Change in Tier 1/Tier 2 Actuarial Accrued Liability Due to Changes

The following table shows the impact of the assumption, method, and plan changes on the actuarial accrued liability as of December 31, 2014.

| | Before Changes | After Changes | Net Change |
|-----------------------------|-------------------|------------------|---------------|
| Actuarial Accrued Liability | \$0 | \$0 | \$0 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Summary of UAL

The UAL represents the difference between the assets accumulated and the liability attributed to prior years of service by the cost method.

| | December 31, 2014 | December 31, 2013 |
|---|-------------------|-------------------|
| 1. Actuarial accrued liability | \$0 | \$0 |
| 2. Actuarial value of assets | 4 | 1 |
| 3. Unfunded accrued liability (1. – 2.) | (4) | (1) |
| 4. Funded percentage (2. ÷ 1.) | 100% | 100% |
| 5. Combined valuation payroll | \$113,496 | \$74,622 |
| 6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.) | 0% | 0% |

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, each odd-year valuation establishes a 20-year closed-period amortization schedule for outstanding regular Tier 1/Tier 2 UAL amounts. For subsequent odd-year valuations, amortization schedules are calculated based on the total Tier 1/Tier 2 UAL as of that valuation date less the remaining unamortized balance of previously established Tier 1/Tier 2 UAL bases. This even-year advisory valuation shows an estimate of the amortization schedules to be established on December 31, 2015, with the estimate based on experience through the end of 2014. The payment schedules for the unamortized balances as of December 31, 2014 have been modified to reflect the lowering of the investment return assumption first effective with this valuation.

| Amortization Base | UAL December 31, 2013 | Payment | Interest | UAL December 31, 2014 | Next Year's Payment |
|-------------------|--------------------------|---------|----------|--------------------------|------------------------|
| December 31, 2013 | (\$1) | \$0 | \$0 | (\$1) | \$0 |
| December 31, 2014 | N/A | N/A | N/A | (\$3) | \$0 |
| Total | | | | (\$4) | \$0 |

Tier 1/Tier 2 Valuation Results

Unfunded Accrued Liability (UAL)

Actuarial Gain or Loss since Prior Valuation

The system-wide actuarial valuation report contains a detailed analysis of gains and losses since the last valuation. The table below shows the gain or loss for the individual employer.

| | |
|--|----------------|
| 1. Expected actuarial accrued liability | |
| a. Actuarial accrued liability at December 31, 2013 | \$0 |
| b. Normal cost at December 31, 2013 | 0 |
| c. Benefit payments during 2014 | 0 |
| d. Interest at 7.75% to December 31, 2014 | 0 |
| e. Expected actuarial accrued liability before changes (a. + b. + c. + d.) | 0 |
| f. Change in actuarial accrued liability due to assumption, method, and plan changes | 0 |
| g. Expected actuarial accrued liability at December 31, 2014 (e. + f.) | 0 |
| 2. Actuarial accrued liability at December 31, 2014 | 0 |
| 3. Gain/(loss) on actuarial accrued liability (1.g. - 2.) | 0 |
| 4. Expected actuarial value of assets | |
| a. Actuarial value of assets at December 31, 2013 | 1 |
| b. Contributions for 2014 ¹ | 118 |
| c. Benefit payments and expenses during 2014 | 0 |
| d. Interest at 7.75% to December 31, 2014 | 5 |
| e. Expected actuarial value of assets at December 31, 2014 (a. + b. + c. + d.) | 124 |
| 5. Actuarial value of assets at December 31, 2014 | 4 |
| 6. Gain/(loss) on actuarial value of assets (5. - 4.e.) | (120) |
| 7. Total actuarial gain/(loss) (3. + 6.) | (\$120) |

Unfunded Accrued Liability Reconciliation

A reconciliation of the Tier 1/Tier 2 UAL from December 31, 2013 is provided below.

| | |
|---|--------------|
| 1. UAL at December 31, 2013 | (\$1) |
| 2. Expected increase | (123) |
| 3. Liability (gain)/loss | 0 |
| 4. Asset (gain)/loss | 120 |
| 5. Change due to changes in assumptions, methods, and plan provisions | 0 |
| 6. UAL at December 31, 2014 (1. + 2. + 3. + 4. + 5.) | (\$4) |

¹ Includes rate relief from side accounts.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Normal Cost Rate

For independent employers, the normal cost calculated previously is divided by projected payroll to determine a normal cost rate. The table below shows the development of the rate for each tier and member classification.

Development of Tier 1/Tier 2 Normal Cost Rate

| | December 31, 2014 | | | December 31, 2013 | | |
|------------------------|-------------------|--|------------------|-------------------|--|------------------|
| | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate | Normal Cost | Employer Tier 1/Tier 2 Valuation Payroll | Normal Cost Rate |
| Tier 1 Police & Fire | \$0 | \$0 | 0.00% | \$0 | \$0 | 0.00% |
| Tier 1 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 Police & Fire | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Tier 2 General Service | 0 | 0 | 0.00% | 0 | 0 | 0.00% |
| Total | \$0 | \$0 | 17.01% | \$0 | \$0 | 14.24% |

An independent employer that has no Tier 1/Tier 2 active payroll will be assigned the weighted average normal cost of all independent employers as calculated in the system-wide actuarial valuation report.

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Development of Tier 1/Tier 2 UAL Rates

The UAL rate is determined by calculating the next year's scheduled payment to the UAL as a percentage of combined valuation payroll.

| | December 31, 2014 | December 31, 2013 |
|--|-------------------|-------------------|
| 1. Total Tier 1/Tier 2 UAL | (\$4) | (\$1) |
| 2. Next year's Tier 1/Tier 2 UAL payment | 0 | 0 |
| 3. Combined valuation payroll | 113,496 | 74,622 |
| 4. Tier 1/Tier 2 UAL rate (2. ÷ 3.) | 0.00% | 0.00% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the employer's pension contribution rate for Tier 1/Tier 2. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates apply to combined valuation payroll. These rates do not reflect adjustments due to the rate collar, the minimum 6 percent rate for independent employers with fewer than 2,500 members, or side accounts.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|---|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 17.01% | 14.24% |
| b. Tier 1/Tier 2 UAL rate | 0.00% | 0.00% |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate (a. + b. + c.) | 17.16% | 14.39% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Adjustments Due to Rate Collar and Minimum Rate Requirements

Employer contribution rates are generally limited to change by no more than the greater of 3 percent of payroll or 20 percent from the current contribution rate. However, if the funded percentage excluding side accounts is below 60 percent or above 140 percent the rate collar doubles in size. If the funded percentage excluding side accounts is between 60 and 70 percent or 130 and 140 percent, the size of the collar is increased on a graded scale. In addition, for independent employers with less than 2,500 active members, the net employer Tier 1/Tier 2 contribution rate cannot be less than 6 percent of payroll. All collar and minimum rate calculations are performed prior to adjustments for side accounts and the OPSRP UAL rate.

The table below shows the current contribution rate for the period from July 1, 2015 through June 30, 2017, develops the maximum and minimum advisory contribution rates effective July 1, 2017 based on the collar, and calculates the net adjustment due to the collar and minimum independent employer contribution rate. The net adjustment due to the rate collar is applied to the UAL rate. The net adjustment due to the 6 percent minimum independent employer contribution rate is applied to the pension normal cost rate.

| | |
|--|--------|
| 1. Current net Tier 1/Tier 2 pension contribution rate | 14.39% |
| 2. Employer contribution rate attributable to side accounts | 0.00% |
| 3. Current employer Tier 1/Tier 2 pension contribution rate (1. – 2.) | 14.39% |
| 4. Size of rate collar | |
| a. 20% of current employer contribution rate (20% x 3.) | 2.88% |
| b. Preliminary size of rate collar (maximum of 3% or a.) | 3.00% |
| c. Funded percentage | 100% |
| d. Size of rate collar (If c. < 60% or c. > 140%, 2 x b. If c. is 70%-130%, b. Otherwise, a graded rate between b. and 2 x b.) | 3.00% |
| 5. Advisory July 1, 2017 minimum employer contribution rate (3. – 4.d. but not < 0%) | 11.39% |
| 6. Advisory July 1, 2017 maximum employer contribution rate (3. + 4.d.) | 17.39% |
| 7. Advisory July 1, 2017 total pension rate, before adjustment | 17.16% |
| 8. Net adjustment due to rate collar (5. – 7., but not < 0, or 6. – 7., but not > 0) | 0.00% |
| 9. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, before collar | 0.00% |
| 10. Advisory July 1, 2017 Tier 1/Tier 2 UAL rate, after collar (8. + 9.) | 0.00% |
| 11. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after collar | 17.16% |
| 12. Tier 1/Tier 2 retiree healthcare rate | 0.50% |
| 13. Net adjustment due to 6% minimum (6% - 11. - 12., minimum 0%) | 0.00% |
| 14. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, before minimum adjustment | 17.01% |
| 15. Advisory July 1, 2017 Tier 1/Tier 2 pension normal cost rate, after minimum adjustment (13. + 14.) | 17.01% |
| 16. Advisory July 1, 2017 Tier 1/Tier 2 pension rate, after minimum adjustment (11. + 13.) | 17.16% |

Tier 1/Tier 2 Valuation Results

Contribution Rate Development

Tier 1/Tier 2 Employer Contribution Rate Summary (Post-Rate Collar)

The table below summarizes the employer's pension contribution rate for Tier 1 /Tier 2 after adjustments for the rate collar and the 6 percent of payroll minimum employer contribution rate.

| | Advisory July 1, 2017 Rates calculated as of December 31, 2014 | July 1, 2015 Rates calculated as of December 31, 2013 |
|--|---|--|
| 1. Tier 1/Tier 2 pension contribution rates | | |
| a. Employer Tier 1/Tier 2 pension normal cost rate | 17.01% | 14.24% |
| b. Tier 1/Tier 2 UAL rate | 0.00% | 0.00% |
| c. Multnomah Fire District #10 rate | 0.15% | 0.15% |
| d. Total Tier 1/Tier 2 pension rate <i>(a. + b. + c., minimum of 5.50%)</i> | 17.16% | 14.39% |

Data

Demographic Information

Employer Valuation Payroll

| | General Service | Police & Fire | Total |
|-----------------------------------|-----------------|------------------|------------------|
| Tier 1 | \$0 | \$0 | \$0 |
| Tier 2 | 0 | 0 | 0 |
| Tier 1/Tier 2 valuation payroll | 0 | 0 | 0 |
| OPSRP valuation payroll | 0 | 113,496 | 113,496 |
| Combined valuation payroll | \$0 | \$113,496 | \$113,496 |

Employer Member Census

| | December 31 | | | | | | | |
|--|-------------|----------|------------|----------|----------|----------|------------|----------|
| | 2014 | | | | 2013 | | | |
| | Tier 1 | Tier 2 | OPSRP | Total | Tier 1 | Tier 2 | OPSRP | Total |
| Active Members ¹ | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 0 | 0 | 3 | 3 | 0 | 0 | 2 | 2 |
| Total | 0 | 0 | 3 | 3 | 0 | 0 | 2 | 2 |
| Active Members with previous service segments with the employer | | | | | | | | |
| General Service | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Police & Fire | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Total | 0 | 0 | N/A | 0 | 0 | 0 | N/A | 0 |
| Dormant Members | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Retired Members and Beneficiaries | | | | | | | | |
| General Service | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Police & Fire | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Grand Total Number of Members | 0 | 0 | 3 | 3 | 0 | 0 | 2 | 2 |

¹ Active counts do not include concurrent employees who have a separate dominant employer.

Data

Demographic Information (continued)

Employer Tier 1/Tier 2 Active Members as of December 31, 2014

| Age | Years of Service | | | | | | | | | Total |
|--------------|------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40+ | |
| <20 | | | | | | | | | | |
| 20-24 | | | | | | | | | | |
| 25-29 | | | | | | | | | | |
| 30-34 | | | | | | | | | | |
| 35-39 | | | | | | | | | | |
| 40-44 | | | | | | | | | | |
| 45-49 | | | | | | | | | | |
| 50-54 | | | | | | | | | | |
| 55-59 | | | | | | | | | | |
| 60-64 | | | | | | | | | | |
| 65-69 | | | | | | | | | | |
| 70-74 | | | | | | | | | | |
| 75+ | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Distribution of Employer Tier 1/Tier 2 Members as of December 31, 2014

| Dormant Members | | | Retired Members and Beneficiaries | | |
|-----------------|-------|----------------------------------|-----------------------------------|-------|-------------------------|
| Age | Count | Average Deferred Monthly Benefit | Age | Count | Average Monthly Benefit |
| <20 | | | <45 | | |
| 20-24 | | | 45-49 | | |
| 25-29 | | | 50-54 | | |
| 30-34 | | | 55-59 | | |
| 35-39 | | | 60-64 | | |
| 40-44 | | | 65-69 | | |
| 45-49 | | | 70-74 | | |
| 50-54 | | | 75-79 | | |
| 55-59 | | | 80-84 | | |
| 60-64 | | | 85-89 | | |
| 65-69 | | | 90-94 | | |
| 70-74 | | | 95-99 | | |
| 75+ | | | 100+ | | |
| Total | | | Total | | |

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2014 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

A brief summary of the methods used in this valuation is shown below:

| | |
|---|--|
| <i>Actuarial cost method</i> | Entry Age Normal. |
| <i>Amortization Method</i> | <p>The UAL is amortized as a level percentage of combined payroll.</p> <p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10 year period.</p> <p>All existing Tier 1/Tier 2 UAL was re-amortized over a 20 year period as of the December 31, 2013 rate-setting valuation. Gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20 year period.</p> |
| <i>Asset valuation method</i> | Market value of assets, excluding reserves. |
| <i>Contribution rate stabilization method (rate collar)</i> | <p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) or independent employer are confined to a collar based on the rate pool's prior pension contribution rate (excluding side account rate offsets). The new contribution rate generally will not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the current rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funding percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p> |

Economic Assumptions

A brief summary of the key economic assumptions used in this valuation is shown below:

| | |
|--------------------------------------|--|
| <i>Net investment return</i> | 7.50% compounded annually on system assets. |
| <i>Interest crediting</i> | <p>7.50% compounded annually on members' regular account balances starting in 2015.</p> <p>7.50% compounded annually on members' variable account balances starting in 2015.</p> |
| <i>Consumer price inflation</i> | 2.50% per year. |
| <i>Future general wage inflation</i> | 3.50% per year. |
| <i>Healthcare cost inflation</i> | Ranging from 7.0% in 2015 to 4.4% in 2094. |
| <i>Administrative Expenses</i> | <p>\$5.5 million added to OPSRP normal cost.</p> <p>\$33.0 million added to Tier 1/Tier 2 normal cost.</p> |

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2013 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Valuation Procedures

- **Allocation of Liability for Service Segments**

For allocating Tier 1/Tier 2 liability among multiple employers, the weighting between Money Match and Full Formula methodologies was updated to reflect expected future experience.

Changes in Economic Assumptions

- **Investment Return and Interest Crediting**

The assumed investment return and interest crediting to both regular and variable account balances was reduced from 7.75% to 7.50%.

- **Inflation**

The inflation assumption was reduced from 2.75% to 2.50%.

- **Payroll Growth**

The assumed payroll growth rate was reduced from 3.75% to 3.50%.

- **Tier 1/Tier 2 Administrative Expenses**

Administrative expenses for the Tier 1/Tier 2 System are assumed to be \$33.0 million per year.

Changes in Demographic Assumptions

- **Mortality**

The healthy mortality assumption is based on RP2000 generational mortality tables with group-specific class and setback adjustments. The group-specific adjustments have been updated to more closely match system experience and the future projection of mortality has been changed to use mortality improvement Scale BB.

- **Disability, Retirement, and Termination**

Rates for the disability, retirement, and termination assumptions were adjusted.

A complete summary of all assumptions used as part of the December 31, 2014 actuarial valuation is contained in the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

The following change in plan provisions occurred since the December 31, 2013 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

- The Oregon Supreme Court decision in *Moro v. State of Oregon* stated that the reduced COLA amounts provided by Senate Bills 822 and 861 (both passed in 2013) only apply to benefits earned after the effective date of the legislation. As a result, PERS members who performed service both before and after the effective date will receive a blended COLA rate reflecting the differing COLA provisions applicable to each service period.

Glossary

Actuarial Accrued Liability

The portion of the present value of prospective benefits allocated to service and compensation before the valuation date in accordance with the actuarial cost method.

Actuarial Asset Value

The value of assets used in calculating the required contributions. The actuarial asset value may be equal to the fair market value of assets, or it may spread the recognition of certain investment gains or losses over a period of years in accordance with an asset valuation method.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement and retirement; rates of investment earnings and other relevant items.

Actuarial Cost Method

Sometimes called "funding method," a particular technique used by actuaries to establish the amount and incidence of the annual actuarial cost of pension plan benefits, or normal cost, and the related unfunded actuarial accrued liability. Ordinarily, the annual contribution to the plan comprises the normal cost and an amount for amortization of the unfunded actuarial accrued liability.

Actuarial Gain or (Loss)

A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

Combined Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for both Tier 1/Tier 2 and OPSRP active members. This payroll is used to calculate UAL rates.

Cost Sharing Multiple-Employer Plan

A single plan used to provide pensions to the employees of more than one employer wherein pension obligations are pooled and plan assets can be used to pay the benefits of the employees of any employer that provides pension through the plan.

Employer Contribution Rate

Consists of the normal cost rate and the UAL rates, plus adjustments for other items such as side account rate offsets.

Funded Status

The actuarial value of assets expressed as a percentage of the actuarial accrued liability.

Normal Cost

The annual cost allocated to the current year, under the actuarial cost method in use. The normal cost divided by the applicable payroll is the normal cost rate.

OPSRP Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for OPSRP active members. This payroll is used to calculate OPSRP normal cost rates.

Glossary

Pre-SLGRP Liability

The sum of Pre-SLGRP Pooled Liabilities and Transition Liabilities.

Pre-SLGRP Pooled Liability

The difference between the total UAL and the UAL attributable to the SLGRP for a pool of employers that joined the SLGRP. There are currently two pre-SLGRP pools. One was created for State Agencies and Community Colleges when the SLGRP was formed. The other one was created when the Local Government Rate Pool joined the SLGRP.

Present Value

Sometimes called “actuarial present value,” the estimated cost (as of the valuation date) of a series of future payments. The present value is determined by discounting the future payments at a predetermined rate of interest, taking into account the probability of payment.

Rate Collar

A methodology that defines the maximum permissible period-to-period change in the base employer contribution rate. The width of the rate collar is determined by the current contribution rate and funded status.

Required Supplementary Information (RSI)

Schedules, statistical data, and other information that are an essential part of financial reporting and should be presented with, but are not part of, the basic financial statements of a governmental entity.

Statement No. 27 of the Governmental Accounting Standards Board (GASB 27)

The accounting standard governing a state or local governmental employer’s accounting for pensions prior to GASB 68.

Statement No. 45 of the Governmental Accounting Standards Board (GASB 45)

The accounting standard governing a state or local governmental employer’s accounting for post-employment benefits other than pensions.

Statement No. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer’s accounting for pensions for fiscal years beginning after June 15, 2014.

Tier 1/Tier 2 Valuation Payroll

Projected payroll subject to PERS employer contribution rates for the calendar year following the valuation date for Tier 1 and Tier 2 active members. This payroll is used to calculate the Tier 1/Tier 2 normal cost rate.

Transition Liability

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool.

Unfunded Accrued Liability (UAL)

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets. The UAL is divided by combined valuation payroll and an amortization factor to determine an initial pre-collar UAL rate. The final UAL rate can be adjusted by the rate collar.



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