Milliman

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September 2022

Columbia 911 Communications District/2671
Oregon Public Employees Retirement System

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, 2021. The attached report, which is an informational supplement to the system-wide actuarial valuation report, provides you with employer-specific contribution rates that will become effective July 1, 2023. Information to assist you in preparing your required financial reporting disclosures under Statement 68 and Statement 75 of the Governmental Accounting Standards Board (GASB) will be provided separately by PERS and is not included in this report.

This report reflects the System's benefit provisions in effect as of December 31, 2021, including Senate Bill 111 and House Bill 2906 which were enacted in June 2021. The full development of the valuation results for the Tier 1/Tier 2 State and Local Government Rate Pool (SLGRP), Oregon Public Service Retirement Plan (OPSRP), Retiree Health Insurance Account (RHIA), and Retiree Health Insurance Premium Account (RHIPA) 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 actuarial.services@pers.oregon.gov.

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, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

- Employer-specific weighted average Tier 1/Tier 2 normal cost rates,
- Transition liability or surplus balances and rate calculation,
- Side account balances, transactions, and rate relief,
- A brief summary of methods and assumptions, and
- A brief summary of any changes in System benefit provisions.

Additional information is provided in the system-wide actuarial valuation report, which is available at www.oregon.gov/PERS/Pages/Financials/Actuarial-Financial-Information.aspx.

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. The valuation results were developed using models intended for valuations that use standard actuarial techniques.

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. The System is subject to various risks that will affect the future plan liabilities and contribution requirements, including investment risk, demographic risk, and contribution risk. While the results of an actuarial valuation are based on one set of reasonable assumptions, it is almost certain that future experience will not exactly match the assumptions. The section of the system-wide valuation report titled Risk Disclosure discusses the System's risks in more detail.

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 October 2021.

The actuarial computations presented in this report are for purposes of determining the contribution rates effective from July 2023 to June 2025 for System employers. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals, and with our understanding of the System benefit provisions described in the appendices of this report. Determinations for other purposes may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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September 2022
Columbia 911 Communications District/2671

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 which are consistent with the principles prescribed by the Actuarial Standards Board and the Code of Professional Conduct and Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States published by the American Academy of Actuaries. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein. Assumptions related to the healthcare trend (cost inflation) rates for the RHIPA program discussed in this report were determined by Milliman actuaries qualified in such matters.

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

Sincerely,

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

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

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ACTUARIAL VALUATION REPORT DECEMBER 31, 2021

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

STATE AND LOCAL GOVERNMENT RATE POOL

Columbia 911 Communications District -- #2671

September 2022

CONTENTS

Executive Summary

Milliman has prepared this report for Columbia 911 Communications District to:

- Provide summary December 31, 2021 valuation results for the Tier 1/Tier 2 State and Local Government Rate Pool (SLGRP), Oregon Public Service Retirement Plan (OPSRP), and the Retiree Health Insurance programs (RHIA and RHIPA),
- Provide employer-specific contribution rates effective effective July 1, 2023 through June 30, 2025, and
- Provide employer-specific information on side accounts and pre-SLGRP liabilities as of December 31, 2021.

This report summarizes the valuation results for the SLGRP, OPSRP, RHIA and RHIPA. The full development of these results can be found in the December 31, 2021 system-wide actuarial valuation report. This report develops employer-specific side account and pre-SLGRP rates and applies the results from the system-wide actuarial valuation to Columbia 911 Communications District.

Executive Summary

Employer Contribution Rates

SLGRP employers have the option to elect separate Tier 1/Tier 2 rates to be applied to general service and police and fire payroll or to have the default blended rate apply to all Tier 1/Tier 2 payroll.

The following table summarizes the employer contribution rates effective July 1, 2023 through June 30, 2025 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Employer Rates Effective July 1, 2023 for Columbia 911 Communications District

	Payroll				
	Tier 1/Tier 2			OPSRP	
	Default	Optional Separate Rates			
	All T1/T2 Payroll	General Service	Police & Fire	General Service	Police & Fire
Pension					
Normal cost rate	14.59%	14.59%	21.74%	9.89%	14.68%
Tier 1/Tier 2 UAL rate[1]	12.61%	12.61%	12.61%	12.61%	12.61%
OPSRP UAL rate	1.69%	1.69%	1.69%	1.69%	1.69%
Pre-SLGRP pooled liability rate	(1.39%)	(1.39%)	(1.39%)	(1.39%)	(1.39%)
Transition liability/(surplus) rate[2]	(0.87%)	(0.87%)	(0.87%)	(0.87%)	(0.87%)
Side account rate relief [2]	0.00%	0.00%	0.00%	0.00%	0.00%
Member redirect offset[3]	(2.40%)	(2.40%)	(2.40%)	(0.65%)	(0.65%)
Net employer pension contribution rate	**24.23%**	**24.23%**	**31.38%**	**21.28%**	**26.07%**
Retiree Healthcare					
Normal cost rate	0.04%	0.04%	0.04%	0.00%	0.00%
UAL rate	(0.04%)	(0.04%)	(0.04%)	0.00%	0.00%
Net retiree healthcare rate	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**
Total net employer contribution rate	**24.23%**	**24.23%**	**31.38%**	**21.28%**	**26.07%**

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 and any impact of rate collar developed on page 41 of the system-wide actuarial valuation report.*

2 *The transition liability/(surplus) rate and side account rate relief shown may be reduced such that the net pension contribution rate does not go below 0.00%.*

3 *Redirected member contributions under Senate Bill 1049 (2.50% of payroll for Tier 1/Tier 2 and 0.75% of payroll for OPSRP) will offset employer contribution rates. Redirect does not apply to members with monthly pay below a threshold. The values shown in the table incorporate an estimate of the effect of this limitation.*

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 UAL Contribution Rates for the July 2025 to June 2027 Biennium

The rate collar limits changes in the Tier 1/Tier 2 UAL Rate for the rate pool, but does not limit changes in rates for individual employers related to pre-SLGRP liabilities or side accounts and does not limit the change in the normal cost rate. The table below shows the possible minimum and maximum Tier 1/Tier 2 UAL Rates for the SLGRP first effective as of July 1, 2025. The collar width, which in general is the amount the UAL Rate could increase or decrease from the current UAL Rate being paid, is 3% of pay. However, the UAL Rate is only allowed to decrease by the full collar width if the funded status (excluding side accounts) of the SLGRP is greater than or equal to 90%. The UAL Rate is not allowed to decrease at all if funded status is below 87%, and the allowable decrease is phased in for funded status levels from 87% to 90%.

For reference, the Pool's funded status excluding side accounts as of December 31, 2021 is 77%.

2023-2025 Biennium	2025-2027 Biennium	
	15.46%	**<<<No higher than this**
12.46%	12.46%	**<<<No lower than this if December 31, 2023 funded status is 87% or lower**
	9.46%	**<<<No lower than this if December 31, 2023 funded status is 90% or higher**

For individual employers in the SLGRP, the SLGRP rate is adjusted to reflect the individual employer's pre-SLGRP pooled liability rate, transition liability rate, and side account rate offset to determine the individual employer's net contribution rate.

Normal Cost Rates

As seen on the prior page, the other large rate components are the normal cost rates for the Tier 1/Tier 2 and OPSRP programs. The normal cost rate represents the projected cost of benefits earned by current year service.

The normal cost rate in any biennium is driven by the active member demographics of the experience pooling groups in the which the employer's members participate. The active member census as of this rate-setting valuation is used to calculate the adopted 2023 - 2025 biennium normal cost rate.
Each biennium's normal cost rate is also sensitive to the investment return assumption, or assumed rate, adopted by the PERS Board for the valuation. The lower the assumed rate, the higher the normal cost rate. The normal cost rate that will be effective as of July 1, 2025 will be based on the active member demographics and investment return assumption as of December 31, 2023.

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

Retiree Healthcare

In June 2015, the GASB issued Statement 75 (GASB 75), which replaced Statement No. 45 and governs employer financial reporting for retiree healthcare obligations for fiscal years beginning after June 15, 2017. In general, the changes required by GASB 75 parallel those that occurred for pension reporting when GASB 68 replaced GASB 27. Accounting information for reporting under GASB 75 will be provided separately and is not included in this report.

Executive Summary

Principal Valuation Results

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

Columbia 911 Communications District

	Actuarial Valuation as of	
	December 31, 2021	**December 31, 2020**
Allocated pooled SLGRP T1/T2 UAL	$2,115,918	$3,270,916
Allocated pre-SLGRP pooled liability/(surplus)	(108,499)	(140,798)
Transition liability/(surplus)	(68,004)	(78,343)
Allocated pooled OPSRP UAL	178,451	329,489
Side account	0	0
Net unfunded pension actuarial accrued liability	2,117,866	3,381,264
Combined valuation payroll	1,452,249	1,609,641
Net pension UAL as a percentage of payroll	146%	210%
Pre-SLGRP pooled rate	(1.39%)	(1.42%)
Transition rate	(0.87%)	(0.79%)
Side account rate relief	0.00%	0.00%
Allocated pooled RHIA UAL	($45,114)	($36,971)
Allocated pooled RHIPA UAL	$0	$0

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

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

Executive Summary

Principal Valuation Results (continued)

SLGRP

($ in millions)	Actuarial Valuation as of December 31, 2021	Actuarial Valuation as of December 31, 2020
Normal cost	$324.1	$350.5
Tier 1/Tier 2 valuation payroll	1,981.7	2,089.0
Normal cost rate	16.35%	16.78%
Actuarial accrued liability	$47,155.1	$46,382.2
Actuarial asset value	36,315.8	31,884.9
Unfunded actuarial accrued liability	10,839.3	14,497.4
Funded status	77%	69%
Combined valuation payroll	$7,439.5	$7,134.3
UAL as a percentage of payroll	146%	203%
UAL rate[1]	12.61%	13.84%
State and Community College Pre-SLGRP Pooled Liability	$312.2	$362.9
LGRP Pooled Liability	(136.2)	(155.8)
Total Transition Liability	(438.7)	(499.7)
Tier 1/Tier 2 Active Members		
▪ Count	20,785	23,191
▪ Average Age	54.9	54.5
▪ Average Service	23.2	22.6
▪ Average Valuation Salary (in dollars)	$95,345	$90,076
Tier 1/Tier 2 Dormant Members		
▪ Count	14,209	14,901
▪ Average Age	58.1	57.6
▪ Average Monthly Benefit (in dollars)	$1,508	$1,472
Tier 1/Tier 2 Retirees and Beneficiaries		
▪ Count	92,134	90,963
▪ Average Age	72.7	72.4
▪ Average Monthly Benefit (in dollars)	$2,521	$2,449

[1] *The December 31, 2021 UAL rate shown for the SLGRP includes 0.15% for Multnomah Fire District #10 (0.14% at December 31, 2020). The City of Portland pays an additional 1.04% and the cities of Fairview, Gresham, Troutdale, and Wood Village pay an additional 0.15% (0.93% and 0.14% respectively at December 31, 2020).*

Executive Summary

Principal Valuation Results (continued)

OPSRP

	Actuarial Valuation as of	
($ in millions)	**December 31, 2021**	**December 31, 2020**
General service normal cost	$796.4	$731.3
OPSRP general service valuation payroll	8,052.6	7,322.9
General service normal cost rate	9.89%	9.99%
Police and fire normal cost	$163.3	$152.2
OPSRP police and fire valuation payroll	1,112.7	1,032.6
Police and fire normal cost rate	14.68%	14.74%
Actuarial accrued liability	$11,806.2	$10,008.1
Actuarial asset value	10,251.2	7,548.8
Unfunded actuarial accrued liability	1,555.0	2,459.3
Funded status	87%	75%
Combined valuation payroll	$12,684.1	$12,042.7
UAL as a percentage of payroll	12%	20%
UAL rate	1.69%	2.09%

Executive Summary

Principal Valuation Results (continued)

Retiree Healthcare

($ in millions) RHIA	Actuarial Valuation as of December 31, 2021	Actuarial Valuation as of December 31, 2020
Normal cost	$1.5	$1.7
Tier 1 / Tier 2 valuation payroll	3,518.8	3,687.3
Normal cost rate	0.04%	0.05%
Actuarial accrued liability	$369.2	$383.6
Actuarial asset value	763.2	660.2
Unfunded actuarial accrued liability	(394.0)	(276.6)
Funded status	207%	172%
Combined valuation payroll	$12,684.1	$12,042.7
UAL as a percentage of payroll	(3%)	(2%)
UAL rate	(0.04%)	(0.05%)

($ in millions) RHIPA	Actuarial Valuation as of December 31, 2021	Actuarial Valuation as of December 31, 2020
Normal cost	$0.9	$1.0
Tier 1 / Tier 2 valuation payroll	1,053.3	1,091.8
Normal cost rate	0.09%	0.09%
Actuarial accrued liability	$45.9	$48.0
Actuarial asset value	82.9	63.6
Unfunded actuarial accrued liability	(37.0)	(15.6)
Funded status	180%	133%
Combined valuation payroll	$3,938.0	$3,712.6
UAL as a percentage of payroll	(1%)	0%
UAL rate	(0.09%)	(0.09%)

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

Weighted Average Tier 1/Tier 2 Normal Cost Rate

Pension

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 the benefits.

Members of the State and Local Government Rate Pool pay a payroll-weighted average normal cost rate using the normal cost rates developed for the pool for each tier and member classification. The table below shows the calculation of the individual employer's Tier 1/Tier 2 normal cost rate by member classification and in aggregate. The employer can elect to pay the member classification rates or the aggregate rate. For purposes of this calculation, all Community Colleges are treated as a single employer.

Development of Total Weighted Average Tier 1/Tier 2 Normal Cost Rate

	December 31, 2021			December 31, 2020		
	SLGRP Normal Cost Rate	**Employer Tier 1/Tier 2 Valuation Payroll**	**Normal Cost**	**SLGRP Normal Cost Rate**	**Employer Tier 1/Tier 2 Valuation Payroll**	**Normal Cost**
Tier 1 General Service	17.70%	$99,235	$17,565	18.14%	$107,077	$19,424
Tier 2 General Service	13.66%	332,154	45,372	13.87%	399,406	55,398
Total General Service		**431,389**	**62,937**		**506,483**	**74,822**
Tier 1 Police & Fire	23.12%	0	0	23.86%	0	0
Tier 2 Police & Fire	21.37%	0	0	21.58%	0	0
Total Police & Fire		**0**	**0**		**0**	**0**
Total		**$431,389**	**$62,937**		**$506,483**	**$74,822**
Total normal cost rate						
General Service			**14.59%**			**14.77%**
Police & Fire			**21.74%**			**22.14%**
Aggregate (Default)			**14.59%**			**14.77%**

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

Transition Liability Information

Outstanding Balance of Transition Liability/(Surplus)

Upon joining the SLGRP, a transition liability or surplus was calculated to ensure that each employer entered the pool on a comparable basis. The transition liability is maintained separately from the SLGRP, and is reduced by contributions and increased for interest charges at the assumed interest rate. The table below shows the reconciliation of the transition liability or surplus from the last valuation to the current valuation.

	Transition Liability
1. Transition liability/(surplus) as of December 31, 2020	($78,343)
2. January 1, 2021 through June 30, 2021	
A. Transition liability/(surplus) rate[1]	(1.02%)
B. Actual employer payroll	781,520
C. Payment to transition liability/(surplus)	(7,972)
3. July 1, 2021 through December 31, 2021	
A. Transition liability/(surplus) rate[1]	(0.88%)
B. Actual employer payroll	767,761
C. Payment to transition liability/(surplus)	(6,757)
4. Supplemental payment to transition liability	0
5. Interest	(4,389)
6. Adjustment due to merged, spun-off, or allocated employers	0
7. Transition liability/(surplus) as of December 31, 2021 ***(1. - 2C. - 3C. - 4. + 5. + 6.)***	**($68,004)**

[1] *Transition liability or surplus rates shown are those paid on Tier 1/Tier 2 payroll for the indicated periods. For some surplus employers, this rate may differ from the rate paid on OPSRP general service or OPSRP police and fire payroll. In those cases, the payment to transition (surplus) shown below is the payment reflecting the rates on different payroll.*

Development of Transition Liability or Surplus Rate

The rate adjustment attributable to a transition liability or surplus is determined by amortizing the liability or surplus on the valuation date over a fixed period, and expressing the result as a percentage of combined valuation payroll. For employers joining the SLGRP prior to December 31, 2009, the fixed period ends December 31, 2027. For all others, the fixed period ends 18 years after the date the employer joined the pool.

	December 31, 2021	December 31, 2020
1. Total transition liability/(surplus)	(68,004)	(78,343)
2. Combined valuation payroll	1,452,249	1,609,641
3. Regular amortization factor	5.363	6.158
4. **Total transition liability/(surplus) rate**	**(0.87%)**	**(0.79%)**

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, 2020	**N/A**		
2. Deposits during 2021			
3. Administrative expenses			
4. Amount transferred to employer reserves during 2021			
5. Side account earnings during 2021			
6. Side account as of December 31, 2021 ***(1. + 2. + 3. + 4. + 5.)***			

Side Account Information

Side Account Balances

	December 31, 2021	December 31, 2020
Side Account 1	0	0
Side Account 2	0	0
Side Account 3	0	0
Side Account 4	0	0
Side Account 5	0	0
Side Account 6	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 default fixed period ends 18 years after the first rate-setting valuation following its creation, though employers can select a shorter period under certain specified circumstances. 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.

	December 31, 2021			December 31, 2020		
	Combined valuation payroll		$1,452,249	Combined valuation payroll		$1,609,641
	Side account balance	**Amortization factor**	**Side account rate**	**Side account balance**	**Amortization factor**	**Side account rate**
1.	0		0.00%	0		0.00%
2.	0		0.00%	0		0.00%
3.	0		0.00%	0		0.00%
4.	0		0.00%	0		0.00%
5.	0		0.00%	0		0.00%
6.	0		0.00%	0		0.00%
Total	**$0**		**0.00%**	**$0**		**0.00%**

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2021 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

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

Actuarial cost method	Entry Age Normal.
Amortization method	The UAL is amortized as a level percentage of combined payroll. The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period. The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10-year period. If a Retiree Healthcare program is over 100% funded the actuarial surplus is amortized over a rolling 20-year period over Tier 1/Tier 2 payroll. Senate Bill 1049 was signed into law in June 2019 and required a one-time re-amortization of Tier 1/Tier 2 UAL over a closed 22-year period at the December 31, 2019 rate-setting actuarial valuation, which set actuarially determined contribution rates for the 2021-2023 biennium. Future Tier 1/Tier 2 gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20-year period.
Asset valuation method	Market value of assets, excluding reserves.
Contribution rate stabilization method (rate collar)	The contribution rate stabilization method, also referred to as the rate collar, is applied separately to OPSRP and to each Tier 1/Tier 2 experience sharing pool (State and Local Government Rate Pool, School Districts) and independent employer. The UAL Rate contributon rate component is confined to a collared range based on the prior biennium's collared UAL Rate and a defined collar width. The UAL Rate is not allowed to decrease if the funded status of the rate pool or employer is 87% or lower. The rate collar does not limit the change in the normal cost rate or changes for individual employers related to side accounts.

Economic Assumptions

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

Investment return	6.90% compounded annually on system assets.
Interest crediting	6.90% compounded annually on members' regular account balances. 6.90% compounded annually on members' variable account balances.
Inflation	2.40% per year.
Payroll Growth	3.40% per year.
Healthcare cost trend	Ranging from 5.5% in 2022 to 3.9% in 2074.
Administrative Expenses	$59 million per year is added to the total system normal cost and allocated between Tier 1/Tier 2 and OPSRP based on valuation payroll.

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2020 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Allocation Procedures

There were no changes in actuarial methods and allocation procedures since the December 31, 2020 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA actuarial methods and allocation procedures is provided as part of the system-wide actuarial valuation report.

Changes in Assumptions

There were no changes in assumptions since the December 31, 2020 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA assumptions is provided as part of the system-wide actuarial valuation report.

Brief Summary of Changes in Plan Provisions

There were no changes in plan provisions reflected since the December 31, 2020 actuarial valuation. A complete summary of the Tier 1/Tier 2, OPSRP, RHIA, and RHIPA plan provisions valued is provided as part of the system-wide actuarial valuation report.

Glossary

Actuarial Accrued Liability

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

Actuarial Asset Value

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

Actuarial Assumptions

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

Actuarial Cost Method

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

Actuarial Gain or (Loss)

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

Combined Valuation Payroll

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

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/(Surplus)

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

Pre-SLGRP Pooled Liability/(Surplus)

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

Present Value

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

Rate Collar

A contribution rate setting methodology that defines the maximum biennium-to-biennium change in the UAL contribution rate for a given experience-sharing pool.

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. 68 of the Governmental Accounting Standards Board (GASB 68)

The accounting standard governing a state or local governmental employer's accounting for pensions. The standard replaced GASB 27 for fiscal years beginning after June 15, 2014.

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

The accounting standard governing a state or local governmental employer's accounting for post-employment benefits other than pensions. The standard replaced GASB Statement 45 for fiscal years beginning after June 15, 2017.

Tier 1/Tier 2 Valuation Payroll

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

Transition Liability/(Surplus)

The difference between the total UAL and the UAL attributable to the SLGRP for an individual employer that joined the SLGRP or the Local Government Rate Pool. The initial balance of liability or surplus is calculated at the time an employer joins the pool. That balance is then amortized over time via employer contribution rate charges (for a liability) or rate offsets (for a surplus).

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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