



OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

BOARD MEETING AGENDA

Friday October 2, 2020 9:00 A.M.		PERS 11410 SW 68 th Parkway Tigard, OR
ITEM		PRESENTER
A. Administration		
1.	July 31, 2020 Board Meeting Minutes	SHENOY
2.	Director's Report	OLINECK
	a. Forward-Looking Calendar	
	b. OPERF Investment Report	
	c. Budget Execution Report	
B. Administrative Rulemaking		
1.	Notice of Police & Fire Retirement Eligibility Rule	VAUGHN
2.	Notice of SB 1049 EPSA Earnings Crediting and WAR Payroll Rules	
3.	Suspension of Temporary COVID-19 Mitigation Rules and Temporary Adoption and Notice of Rulemaking for PHIP Premium Payment and Employer Incentive Fund (EIF) Rules	
4.	Adoption of Disability Definitions – Gambling Income Rules	
C. Action and Discussion Items		
1.	Legislative Update	CASE
2.	Employer Incentive Fund Update	SOSNE
3.	SB 1049 Implementation Update	MASANGA
4.	Board Funding Policy	OLINECK
5.	Member & Employer Survey Results	CARSON, BODMAN, DEMPEWOLF
6.	Milliman Actuarial Contract Extension	WINSHIP
7.	2019 Valuation Results and Adoption of Employer Rates	MILLIMAN

PERS Board members will be attending this meeting remotely. The public will not be able to attend the meeting in person. Visit <https://www.oregon.gov/pers/Pages/Board/PERS-Board-Information.aspx> for listening options. This meeting will be recorded. An audio recording of the meeting will be available on the PERS website following the meeting.

Public testimony will be taken on action items at the Chair's discretion. Please submit written testimony to PERS.Board@state.or.us (three days in advance of the meeting is preferred.)

<http://www.oregon.gov/PERS/>

2020 Meetings: December 4*
2021 Meetings: February 1, March 29*, June 4, July 23*, October 1, December 3*
 *Audit Committee planned for post-Board meeting

Sadhana Shenoy, Chair Lawrence Furnstahl, Vice Chair Stephen Buckley Steve Demarest Jardon Jaramillo Kevin Olineck, Director

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM BOARD MEETING MINUTES

July 31, 2020

Board members present:

Chair Sadhana Shenoy, Vice Chair Lawrence Furnstahl, Stephen Buckley, and Steve Demarest attended by phone.

Staff present:

Heather Case, Katie Brogan, Kevin Olineck, Yvette Elledge-Rhodes attended in person.

Greg Gabriel, Jason Stanley, Jordan Masanga, Elizabeth Rossman, Dean Carson, Shawn Dempewolf, Matt Larabee, Mike Reid, Richard Horsford, Sam Paris, Scott Preppernau, Stephanie Vaughn attended by phone.

Others present:

A listen-only conference line was made available for the public and PERS staff.

Chair Shenoy called the meeting to order at 9:00 a.m.

ADMINISTRATION

A.1.A. MEETING MINUTES OF MAY 29, 2020

Board Member Buckley moved to approve the minutes as presented from the May 29, 2020 PERS Board meeting. Board Member Demarest seconded the approval of the minutes. The motion passed unanimously.

A.1.A. MEETING MINUTES OF JUNE 23, 2020

Board Member Buckley moved to approve the minutes as presented from the June 23, 2020 PERS Board meeting. Board Member Demarest seconded the approval of the minutes. The motion passed unanimously.

A.2. DIRECTOR'S REPORT

Director Kevin Olineck presented the Director's Report. The Director's Report contains information on other activities that the organization is working on that do not appear on the agenda. PERS continues to support teleworking while continuing to meet the needs of members.

Olineck presented the forward looking calendar. The dates for the 2021 meetings are included on the calendar.

The Oregon Public Employees Retirement Fund (OPERF) returns, for the period ending June 30, 2020 were -4.50.

Operating expenditures for May, preliminary expenditures for June, and preliminary expenditures for July are \$4,001,816, \$4,177,330 and \$4,034,831 respectively. At this time, the agency's projected variance is \$1,052,154.

A.3. CEM BENCHMARKING RESULTS

Mike Reid, Vice President, CEM Benchmarking, presented.

Reid presented the PERS Pension Administration Benchmarking Report for FY 2019. Oregon PERS has the second highest plan design complexity score among CEM's global universe. High complexity negatively impacts service, front office productivity, and back office costs.

No board action was required.

ADMINISTRATIVE RULEMAKING

Stephanie Vaughn, Policy Analysis and Compliance Section Manager, presented.

B.1. NOTICE OF DISABILITY DEFINITIONS – GAMBLING INCOME RULES

Vaughn presented Notice of Rulemaking for Disability Definitions Rules: *OAR 459-015-0001*, Definitions, *OAR 459-076-0001*, Definitions. No rulemaking hearing will be held because the PERS building is closed to the public due to COVID-19. The public comment period ends September 1, 2020, at 5:00 p.m.

No board action was required.

B.2. ADOPTION OF RULES TO IMPLEMENT THE CARES ACT

Vaughn presented Adoption of Rules to Implement the CARES Act: *OAR 459-050-0075*, Distributions During Employment, *OAR 459-050-0077*, Loan Program, *OAR 459-050-0080*, Distribution of Funds After a Severance of Employment, *OAR 459-050-0300*, Required Minimum Distribution Requirements.

No rulemaking hearing was held because the PERS headquarters building was closed to the public. The public comment period ended July 3, 2020, at 5:00 p.m. No public comment was received.

Board Member Demarest moved to adopt rules to implement the federal CARES Act, as presented. Vice Chair Lawrence Furnstahl seconded. The motion passed unanimously.

B.3. ADOPTION OF SB 1049 MEMBER REDIRECT – VOLUNTARY CONTRIBUTIONS RULE

Vaughn presented Adoption of SB 1049 Member Redirect – Voluntary Contributions Rule: *OAR 459-080-0410*, Voluntary Contributions to Individual Account Program (IAP).

No rulemaking hearing was held because the PERS headquarters building was closed to the public. The public comment period ended July 3, 2020, at 5:00 p.m. No public comment was received.

Board Member Stephen Buckley moved to adopt the SB 1049 Member Redirect – Voluntary Contributions rule, as presented. Board Member Demarest seconded. The motion passed unanimously.

ACTION AND DISCUSSION ITEMS

C.1. LEGISLATIVE UPDATE

Heather Case, Senior Policy Advisor, presented.

The first special session of 2020 adjourned Friday, June 26. There were no bills specific to PERS. Case outlined a few sections within an omnibus COVID-19 bill (HB 4212) that will effect PERS agency operations.

There will be a second special session in August that will be focusing on rebalancing the state budget for the 2019-2021 biennium. The Joint Ways and Means committee released a recommended rebalance plan that effects the Employer Incentive Fund and School Districts Unfunded Liability Fund.

The legislative concepts approved by the PERS Board at the March 30, 2020 board meeting are currently being drafted into bills by the Office of Legislative Counsel.

No board action was required.

C.2. SB 1049 IMPLEMENTATION UPDATE

Yvette Elledge-Rhodes, Deputy Director, presented.

Elledge-Rhodes reviewed the ongoing activities of the five individual projects that make up the SB 1049 Implementation Program. She highlighted program activities that have been completed, or are in process, since the last board meeting. PERS staff will continue to update the board as project implementation continues throughout the next year.

Employer Programs project and Member Redirect project are in red status. Work After Retirement is in yellow. The other two projects are green status.

No board action was required.

C.3. 2021-2023 AGENCY BUDGET DEVELOPMENT

Richard Horsford, Chief Financial Officer and Greg Gabriel, Budget Officer presented.

Horsford presented the 2021-23 Agency Request Budget (ARB) for the board's approval for submission to the Department of Administrative Services/Chief Financial Office.

Vice Chair Furnstahl motioned to approve the 2021-23 Agency Request Budget as presented for submission to the Department of Administrative Services/Chief Financial Office. The motion was seconded by Board Member Buckley. The motion passed unanimously.

C.4. RATE COLLARING – CONTINUATION OF DISCUSSION

Scott Preppernau and Matt Larrabee of Milliman received feedback from the board on the policies they intend to use to analyze in the annual financial modeling exercise scheduled for the December meeting. The analysis will focus on output smoothing approaches. Milliman will work to research other approaches and report back at a future board meeting.

C.4. 2019 SYSTEM-WIDE VALUATION RESULTS

Actuaries Matt Larrabee and Scott Preppernau of Milliman presented the 2019 System-wide Valuation Report as of December 31, 2019. The employer specific contribution rates will be presented for adoption at the October board meeting and will be effective starting July 1, 2021.

Chair Shenoy adjourned the PERS Board meeting at 12:10 p.m.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Kevin Olineck". The signature is written in a cursive, flowing style.

Kevin Olineck, Director

Director’s Report

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

Kevin Olineck, Director



This October 2020 Director’s Report tries to encapsulate, at a high level, noteworthy changes that have taken place since the last board meeting, while highlighting staff accomplishments.

COVID-19 Response

I am proud of the collaborative efforts shown by all areas of the agency in responding to this situation. I am particularly proud of the fact that, operationally, PERS continues to provide our regular services with minimal interruption to normal service levels. With regard to our current mitigation measures, we found out on September 1 that our current work arrangements will extend at least until December 31.

To better support staff, either working from home or in our offices, as well as our members and employers, the agency made the below updates.

Use of Microsoft Teams In mid-March, when guidance was given to move staff to teleworking, PERS implemented Microsoft Teams as a key element in enabling staff to work collaboratively, yet remotely. PERS’ staff were quick to utilize Teams’ potential in their everyday work activities. Figure 1 displays the usage statistics for PERS staff on Microsoft Teams for the period May 14 to August 11.

Remote Online Notarization Process Change As noted in the July PERS Board Legislative Update, there were a few sections within an omnibus COVID-19 bill (HB 4212) that affected agency operations. One was section 20 within this bill - Notarial Acts. This section allows for remote online notarization of documents using “simultaneous sight and sound technology.” The notarial



Figure 1

seal is required to declare that the particular notarization took place remotely and is important, as our statutes require notarization of some of our documents. There are specific steps notaries must take before beginning remote notarization, which are outlined in the bill. The agency built out new processes to enable reception of remotely notarized documents, including updating member information on our website.

Enhanced Virtual Private Network (VPN) Capacity In August, the Technical Operations Section implemented an enhanced VPN that took us from one to four gigabyte capacity. This greatly improved responsiveness for those staff working from home, including better performance when using Microsoft Teams. This also positively impacted our connections to the State Data Center. The agency is currently working collaboratively with the State to procure and implement software that will enable electronic signatures for staff to use.

Budgetary Impacts Associated with COVID-19 As noted in my July Report, while PERS is deemed to be an “Other Funds” agency, as we are funded by the PERS System, we did receive \$100 million in General Funds this biennium to set up the Employer Incentive Fund. A Special Legislative Session was held on August 10, which removed funds from both the Employer Incentive Fund as well as the School District Unfunded Liability Fund, as well as revenue streams to support both these funds. More details on these changes and their impacts will be discussed during the board meeting.

Agency Highlights and Accomplishments

I want to continue to highlight where PERS staff have not only made great progress with standard operational initiatives, but also made significant progress on strategic initiatives. The following are accomplishments that deserve to be highlighted, with staff publicly acknowledged for their efforts.

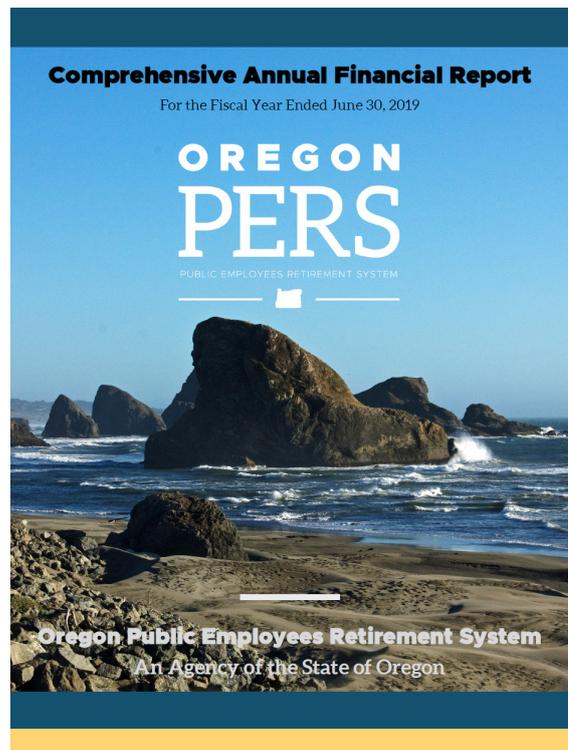
Backup Data Center Migration PERS is required to comply with DAS Statewide Policy #107-001-010, which requires that critical state services will continue despite their interruption by an emergency, disaster, or other unplanned event. Additionally, PERS was required, through budget directives, to develop Business Continuity Recovery Point Objectives in the event of a localized disaster, and to have the ability to ensure business continuity in its fall-back business and/or data center location (via our disaster recovery program and plan). This backup data center location operates when a serious enough disruption occurs that makes it impossible to maintain business continuity in the primary business and/or data center facilities.

PERS was successful in implementing a cloud-based backup data center in early September. Establishing this backup data center supports PERS’ compliance with

the statewide policy, minimizes downtime in the event of a PERS-affected disaster, and supports flexibility of users who will need to work remotely in the event of a local disaster. The backup data center will enable the resumption of critical business and infrastructure services within 24 hours of a localized catastrophic event.

With the completion of this initiative, the team will now pivot to move our current server infrastructure, which is housed in our headquarters building, to the State Data Center in Salem, by the end of this biennium.

GFOA Award We are pleased that, once again, PERS’ comprehensive annual financial report (CAFR) for the fiscal year ended June 30, 2019 qualified for GFOA’s Certificate of Achievement for Excellence in Financial Reporting. The Certificate of Achievement is the highest form of recognition in governmental accounting and financial reporting, and its attainment represents a significant accomplishment by a government and its management.



NAGDCA Award for Oregon Savings Growth Plan The Oregon Savings Growth Plan (OSGP) was recently recognized by the National Association of Government Defined Contribution Administrators Inc. (NAGDCA). PERS won the 2020 NAGDCA Leadership Award in the [Participant Education and Communication category](#) for the agency's work developing and executing a marketing campaign in partnership with the Oregon Savings Growth Plan, a 457(b) voluntary deferred compensation program available to certain public employees to help them save more for retirement.

The [campaign](#) focused on increasing financial awareness and retirement education among PERS members, especially those earlier in their careers. A flagship of the effort was PERS Expo 2019, an annual event that aims to help PERS members learn more about their PERS benefits, how OSGP can complement PERS, and other general topics about preparing and saving for retirement. Other components of the campaign included new [educational videos](#) and an update to workshop presentations to help public employees understand how easy it is to save more for retirement.

Throughout its components, the campaign maintained a consistent look, messaging, and call to action focused on members taking an active interest in their financial futures and saving more for retirement. A key goal was to increase awareness of OSGP and remove barriers to enrollment in the plan, which can be used by eligible PERS members as a vehicle for additional retirement savings.

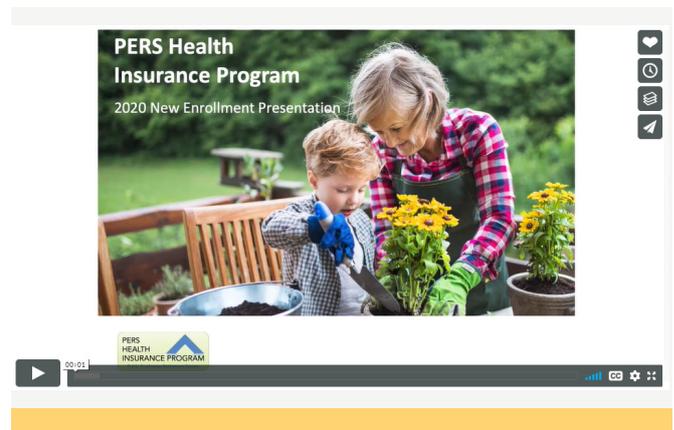
The campaign was the first time that PERS and OSGP, with the support of Voya Financial, the third-party administrator for OSGP, implemented a major marketing strategy together, one that incorporated design ideas, photography, video production, and various communications vehicles.

Senate Bill 1049 (SB 1049) Work continues on implementing elements of all five projects associated with SB 1049. More detailed SB 1049 implementation reports on the overall program and projects will be

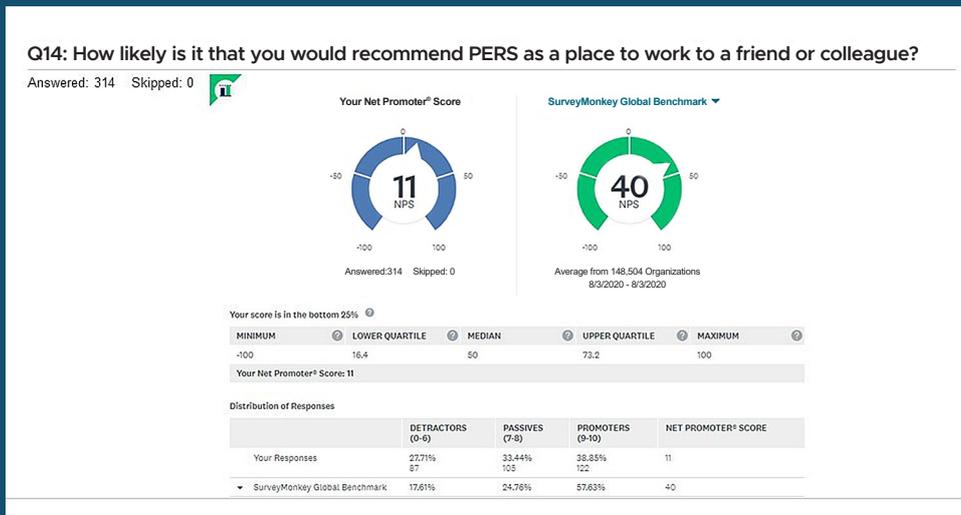
provided in the board packet.

PHIP Videos Based on the latest information and recommendations from the Office of the Governor, PERS Health Insurance Program (PHIP) canceled their New Enrollment in-person presentations for the remainder of the year. PERS updated our [COVID-19 statement](#) to reflect these cancellations.

Because of the efforts of the PHIP team in accommodating the changes in how we interact, there are now 15 recorded video presentations available on their [New Enrollment Videos](#) page.



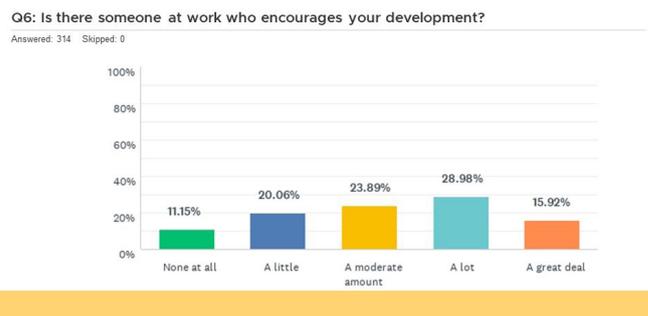
Employee Survey Results



In July we conducted the annual PERS Employee Engagement Survey. The response rate was 82%, which is 19 percentage points higher than last year's results. A few changes in this year's survey helped improve insight into staff sentiments, such as switching to a five-point Likert scale and adding a Net Promoter Score. In contrast to dichotomous questions with yes/no answers, a Likert scale allows us to measure attitudes and the degree of agreement about the questions. The Net Promoter Score (NPS) gives us a quick way to understand how staff feel about the agency, helps set internal performance benchmarks, and allows us to compare our agency with others in our industry.

Although scores increased for most of the questions over last year, we identified two areas needing improvement – employee recognition and employee development. The PERS Executive Leadership Team is reviewing the results and formulating plans to address both areas over this next year.

Our Net Promoter Score is 11. To better understand how that compares to other organizations, we used benchmarking. We compared our score against 148,504 other organizations, and our NPS of 11 placed us in the bottom 25% quartile compared to those organizations whose average score was 40. What that means is the majority of respondents are somewhat satisfied at PERS, but would take another position elsewhere if given the opportunity. They do not spread negative word-of-mouth, but they are not enthusiastic enough about the agency to promote it as a place to work to a friend or colleague.



PERS Board Meeting Forward-Looking Calendar

Friday, December 4, 2020*

Board Governance Assignments
Board Scorecard Report on Agency Performance Measures
Approval to File Agency-Requested Legislative Concepts
Financial Modeling Presentation

Monday, February 1, 2021

Annual Report of Director Financial Transactions
Legislative Preview/Update
Preliminary Earnings Crediting and Reserving
SB1566 Reporting Requirements

Monday, March 29, 2021*

OIC Annual Review
Legislative Update
Final Earnings Crediting

Wednesday, June 2, 2021, (Joint Meeting with OIC at Treasury)

(PERS Board will be joining the second half of the regular OIC Board meeting 9:00am-1:00pm)

Friday, June 4, 2021

Board Scorecard Report on Agency Performance Measures
Propose Board Meeting Dates for Next Year
Annual Report of Board Member Training Activities
Legislative Update
Retiree Health Insurance Plan Renewals and Rates
Overview of Actuarial Methods and Economic Assumptions

Friday, July 23, 2021*

CEM Benchmarking Results
Director's Performance Evaluation – Comments from Chair
Legislative Session Review
Member and Employer Survey Results
Preliminary Adoption of Valuation Methods and Assumptions Including Assumed Rate of Return
Preliminary Adoption of Assumed Rate OAR

Friday, October 1, 2021

Strategic Plan Overview
Legislative Update / Legislative Concepts
Member and Employer Survey Results
Final Adoption of Valuation Methods & Assumptions Including Assumed Rate of Return
Valuation Results – Advisory Employer Rates
Final Adoption of Assumed Rate OAR

Friday, December 3, 2021*

Board Governance Assignments
Board Scorecard Report on Agency Performance Measures
Strategic Plan Approval
Valuation Update and Financial Modeling Results
Adoption of Actuarial Equivalency Factor Tables

**Audit Committee planned for post-board meeting*

Returns for periods ending JUL-2020

Oregon Public Employees Retirement Fund

OPERF	Regular Account				Historical Performance (Annual Percentage)							
	Policy ¹	Target ¹	\$ Thousands ²	Actual	Year-To-Date ³	1 YEAR	2 YEARS	3 YEARS	4 YEARS	5 YEARS	7 YEARS	10 YEARS
Public Equity	27.5-37.5%	32.5%	\$ 23,441,313	31.1%	(5.17)	2.61	1.97	5.10	8.23	6.48	7.39	8.93
Private Equity	13.5-21.5%	17.5%	\$ 17,350,948	23.0%	(2.70)	2.71	8.13	11.28	12.04	10.40	11.43	12.03
Total Equity	45.0-55.0%	50.0%	\$ 40,792,260	54.2%								
Opportunity Portfolio	0-5%	0%	\$ 1,622,345	2.2%	(2.88)	1.03	2.44	4.05	5.29	5.14	5.89	7.74
Total Fixed	15-25%	20.0%	\$ 15,276,043	20.3%	6.88	9.31	8.35	5.49	4.35	4.32	4.05	4.68
Risk Parity	0.0-2.5%	2.5%	\$ 1,254,861	1.7%								
Real Estate	9.5-15.5%	12.5%	\$ 8,468,199	11.2%	0.43	4.42	4.96	6.32	6.53	7.42	8.93	10.41
Alternative Investments	7.5-17.5%	15.0%	\$ 7,876,485	10.5%	(8.36)	(9.64)	(5.80)	(2.73)	0.46	0.75	0.72	
Cash w/Overlay	0-3%	0%	\$ 16,442	0.0%	1.33	2.46	2.81	2.38	2.09	1.86	1.50	1.29
TOTAL OPERF Regular Account		100.0%	\$ 75,306,635	100.0%	(2.31)	2.41	3.96	5.71	7.11	6.30	7.13	8.35
OPERF Policy Benchmark					0.63	5.67	5.94	7.00	8.36	7.29	8.13	8.97
Value Added					(2.95)	(3.25)	(1.98)	(1.29)	(1.24)	(0.99)	(1.00)	(0.62)

Target Date Funds

2,873,267

TOTAL OPERF Variable Account

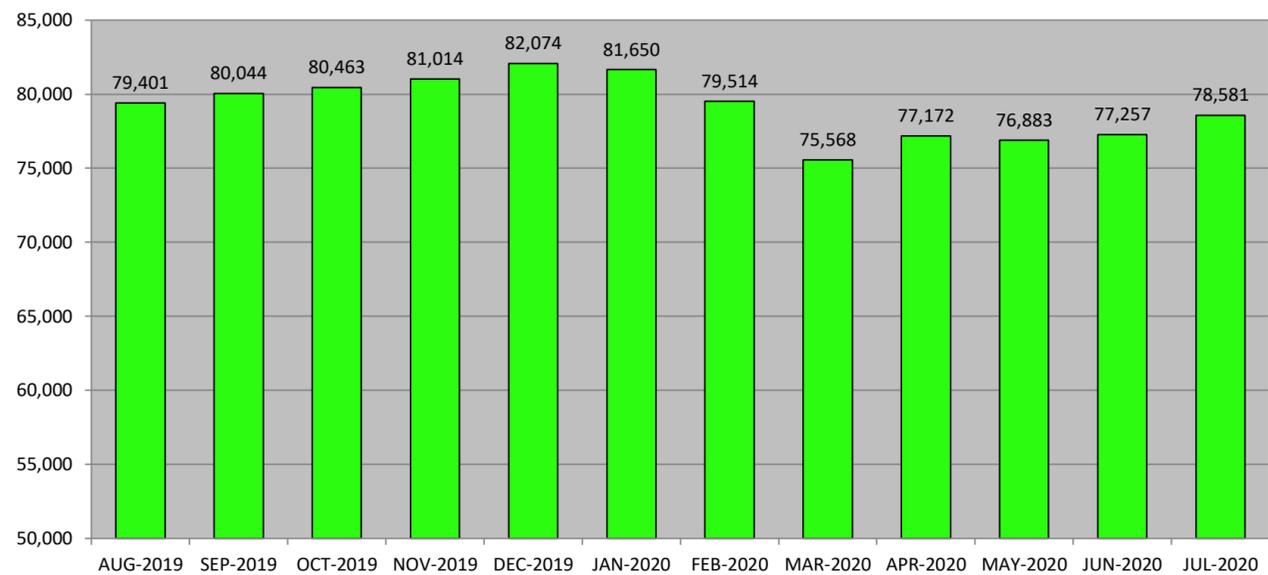
\$ 400,952

(2.06)	6.40	4.40	6.73	9.34	7.47	8.04	9.16
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Asset Class Benchmarks:

Russell 3000	2.01	10.93	8.97	11.39	12.56	10.89	11.71	13.59
OREGON MSCI ACWI EX US IMI NET	(7.22)	0.72	(1.14)	1.24	5.39	3.31	3.85	4.68
MSCI ACWI IMI NET	(2.23)	6.11	4.06	6.38	8.95	7.07	7.67	8.80
RUSSELL 3000+300 BPS QTR LAG	(6.16)	(1.29)	5.18	9.15	12.47	10.43	13.32	14.21
OREGON CUSTOM FI BENCHMARK	6.97	9.17	8.26	5.38	4.03	4.05	3.66	3.88
OREGON CUSTOM REAL ESTATE BENCHMARK	1.43	3.06	4.61	5.47	6.07	7.15	8.50	9.91
CPI +4%	3.16	5.02	5.45	5.98	5.93	5.72	5.55	5.81
91 Day Treasury Bill	0.62	1.46	1.90	1.74	1.44	1.20	0.86	0.64

Total OPERF NAV
(includes Variable Fund assets)
One year ending JUL-2020
(\$ in Millions)



¹OIC Policy revised April 2019.

²Includes impact of cash overlay management.

³For mandates beginning after January 1 (or with lagged performance), YTD numbers are "N/A". Performance is reflected in Total OPERF. YTD is not annualized.

Returns for periods ending AUG-2020

Oregon Public Employees Retirement Fund

OPERF	Regular Account				Historical Performance (Annual Percentage)							
	Policy ¹	Target ¹	\$ Thousands ²	Actual	Year-To-Date ³	1 YEAR	2 YEARS	3 YEARS	4 YEARS	5 YEARS	7 YEARS	10 YEARS
Public Equity	27.5-37.5%	32.5%	\$ 24,571,875	31.6%	(0.38)	10.74	4.05	6.67	9.48	8.96	8.47	9.88
Private Equity	13.5-21.5%	17.5%	\$ 18,311,626	23.6%	3.32	5.74	9.56	12.69	13.74	11.73	12.39	12.71
Total Equity	45.0-55.0%	50.0%	\$ 42,883,500	55.2%								
Opportunity Portfolio	0-5%	0%	\$ 1,672,797	2.2%	0.34	3.21	2.97	4.74	5.82	5.57	6.43	7.98
Total Fixed	15-25%	20.0%	\$ 15,441,480	19.9%	6.42	6.30	7.78	5.06	4.21	4.30	4.06	4.51
Risk Parity	0.0-2.5%	2.5%	\$ 1,286,324	1.7%								
Real Estate	9.5-15.5%	12.5%	\$ 8,417,853	10.8%	(0.25)	1.41	3.75	5.71	6.52	7.57	9.00	10.33
Alternative Investments	7.5-17.5%	15.0%	\$ 8,079,239	10.4%	(7.64)	(8.59)	(5.73)	(3.06)	(0.16)	0.33	0.53	
Cash w/Overlay	0-3%	0%	\$ (77,730)	-0.1%	1.40	2.16	2.72	2.36	2.08	1.87	1.51	1.29
TOTAL OPERF Regular Account		100.0%	\$ 77,703,463	100.0%	0.60	4.94	4.74	6.37	7.84	7.53	7.74	8.80
OPERF Policy Benchmark					4.00	9.28	7.22	7.94	9.21	8.64	8.82	9.46
Value Added					(3.40)	(4.35)	(2.48)	(1.57)	(1.38)	(1.11)	(1.08)	(0.67)

Target Date Funds

2,895,479

TOTAL OPERF Variable Account

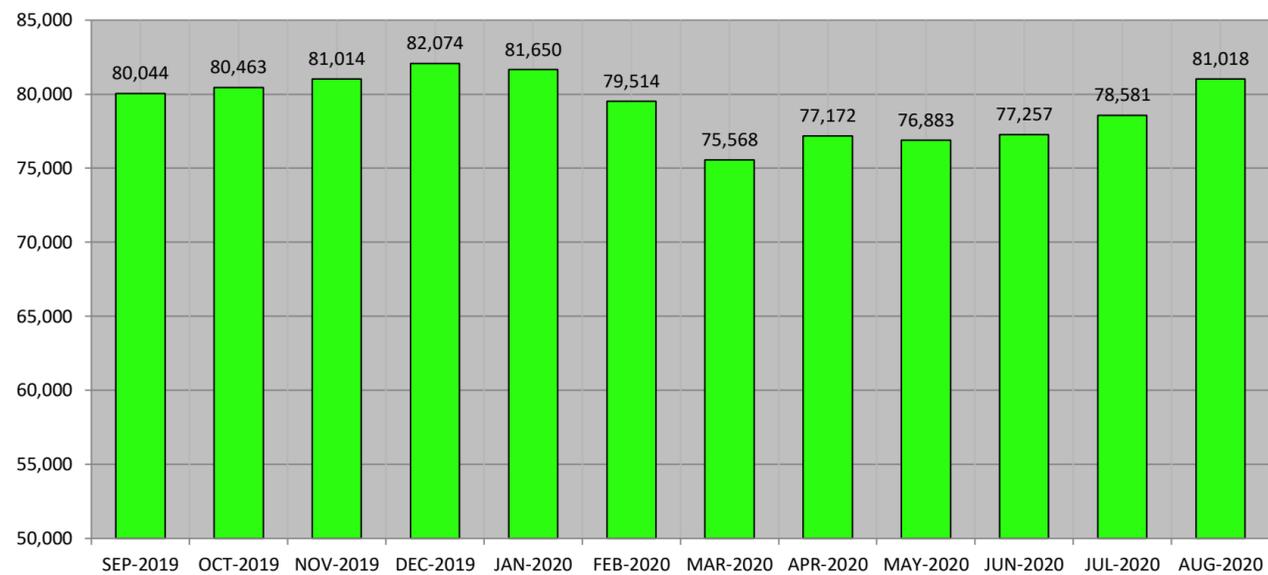
\$ 418,898

	3.88	15.73	7.00	8.71	10.85	10.23	9.27	10.20
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Asset Class Benchmarks:

Russell 3000	9.39	21.44	10.92	13.95	14.47	13.86	13.29	14.94
OREGON MSCI ACWI EX US IMI NET	(2.97)	8.66	2.09	2.56	6.44	5.85	4.71	5.43
MSCI ACWI IMI NET	3.69	15.44	6.67	8.36	10.48	9.85	8.90	9.84
RUSSELL 3000+300 BPS QTR LAG	0.51	4.07	8.04	11.21	14.42	11.96	14.43	15.00
OREGON CUSTOM FI BENCHMARK	6.39	6.00	7.61	4.90	3.90	3.99	3.68	3.68
OREGON CUSTOM REAL ESTATE BENCHMARK	0.84	2.19	3.99	5.10	5.92	7.02	8.41	9.85
CPI +4%	3.82	5.36	5.59	5.99	5.99	5.81	5.58	5.82
91 Day Treasury Bill	0.62	1.26	1.81	1.72	1.44	1.20	0.86	0.64

Total OPERF NAV
(includes Variable Fund assets)
One year ending AUG-2020
(\$ in Millions)



¹OIC Policy revised April 2019.

²Includes impact of cash overlay management.

³For mandates beginning after January 1 (or with lagged performance), YTD numbers are "N/A". Performance is reflected in Total OPERF. YTD is not annualized.



Oregon

Kate Brown, Governor

Public Employees Retirement System

Headquarters:
11410 S.W. 68th Parkway, Tigard, OR
Mailing Address:
P.O. Box 23700
Tigard, OR 97281-3700
888-320-7377
TTY (503) 603-7766
www.oregon.gov/pers

October 2, 2020

TO: Members of the PERS Board
FROM: Gregory R. Gabriel, Budget Officer
SUBJECT: October 2020 Board Report

2019-21 OPERATING BUDGET

Operating expenditures for July, preliminary expenditures for August, and preliminary expenditures for September are \$4,324,696, \$4,552,790 and \$4,225,037 respectively. Final expenditures for September will close in the Statewide Financial Management System (SFMS) on October 16 and will be included in the December 2020 report to the board.

- Through September 11, 2020, the agency has expended a total of \$59,208,000 or 52.6% of PERS' legislatively approved operations budget of \$112,657,461.
- At this time, the agency's projected variance is \$1,316,543.
- SB 1049 expenditures for July, preliminary August, and preliminary September are \$1,674,933, \$1,330,823, and \$723,932 respectively. As of September 11, the agency has expended \$11,540,593 of the legislatively approved budget of \$28,559,714.

2019-21 NON-LIMITED BUDGET

The adopted budget includes \$12,504,627,192 in total estimated non-limited expenditures. Non-limited expenditures include benefit payments, health insurance premiums, and third-party administration payments for both the PERS Health Insurance Program (PHIP) and the Individual Account Program (IAP).

- Preliminary Non-Limited expenditures through September 11, 2020 are \$6,761,853,827.

SPECIAL SESSION AUGUST 2020 – SB 5723

The August 2020 legislative session had the following impacts to the PERS budget:

Program	Fund Type	Amount
School Districts Unfunded Liability Fund	Other Funds	(11,539,471)
Employer Incentive Fund	General Funds	(35,248,198)
Employer Incentive Fund	Other Funds	(35,248,198)
Employer Incentive Fund	Other Funds	(1)
SB1049 – Technology Applications	Other Funds	(10,000,000)
SB1049 – Contingency Reserve	Other Funds	(500,000)

A.2.c. Attachment – 2019-21, SB1049 Agency-wide Budget Execution Summary Analysis

PERS Monthly Budget Report

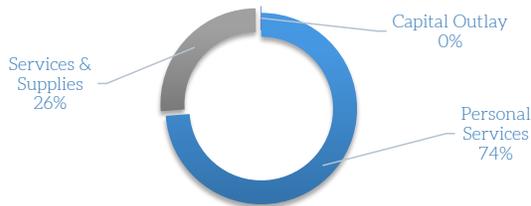
2019-21 Agency-wide Budget Execution
Preliminary Summary for the Month of September 2020

Limited - Operating Budget

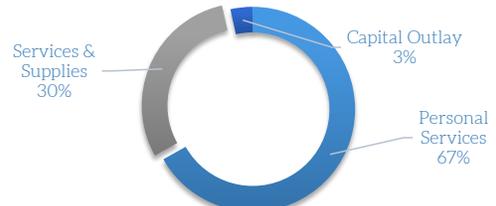
2019-21 Biennial Summary

Category	Actual Exp. To Date	Projected Expenditures	Total Est. Expenditures	2019-21 LAB	Variance
Personal Services	43,694,518	34,852,392	78,546,910	77,726,802	(820,108)
Services & Supplies	15,446,526	15,458,951	30,905,477	32,757,328	1,851,851
Capital Outlay	66,956	1,821,575	1,888,531	2,173,331	284,800
Total	59,208,000	52,132,918	111,340,918	112,657,461	1,316,543

Actual Expenditures



Projected Expenditures



Monthly Summary

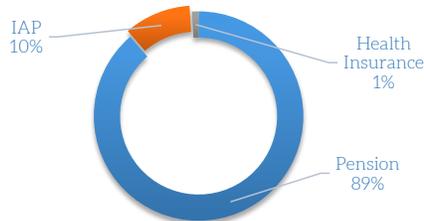
Category	Actual Exp.	Projections	Variance	Avg. Monthly Actual Exp.	Avg. Monthly Projected Exp.
Personal Services	3,279,413	3,363,500	84,088	3,112,106	3,465,769
Services & Supplies	813,654	861,537	47,883	1,126,947	1,464,410
Capital Outlay	131,970	142,960	10,990	5,150	165,598
Total	4,225,037	4,367,998	142,962	4,244,203	5,095,778

Non-Limited Budget

2019-21 Biennial Summary

Programs	Actual Exp To Date	Projected Expenditures	Total Est. Expenditures	Non-Limited LAB	Variance
Pension	5,996,098,441	4,394,583,092	10,390,681,533	10,347,780,673	(42,900,860)
IAP	696,116,420	599,094,200	1,295,210,620	1,423,365,167	128,154,547
Health Insurance	69,638,966	175,375,526	245,014,492	733,481,352	488,466,860
Total	6,761,853,827	5,169,052,818	11,930,906,645	12,504,627,192	573,720,547

Actual Expenditures



Projected Expenditures



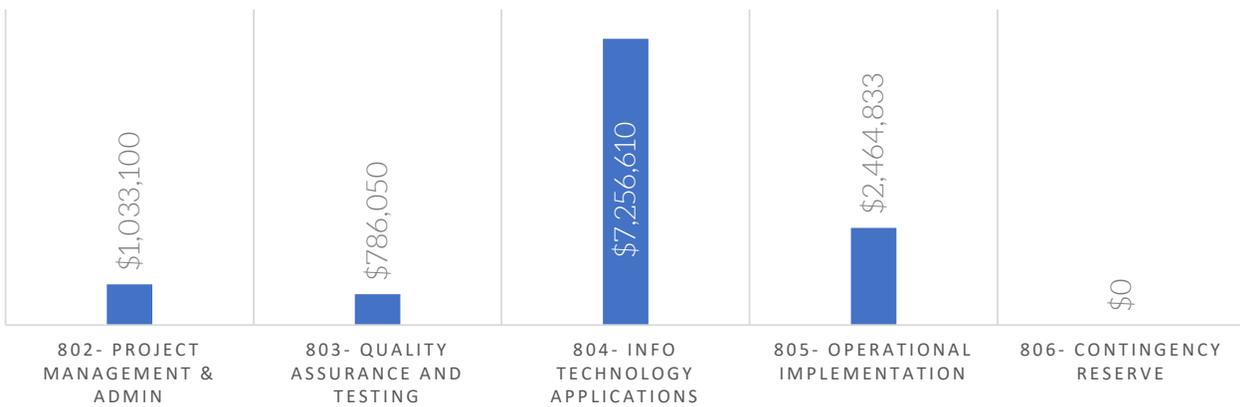
SB 1049 Budget Report

Preliminary Summary Budget Analysis Preliminary for the Month of September 2020

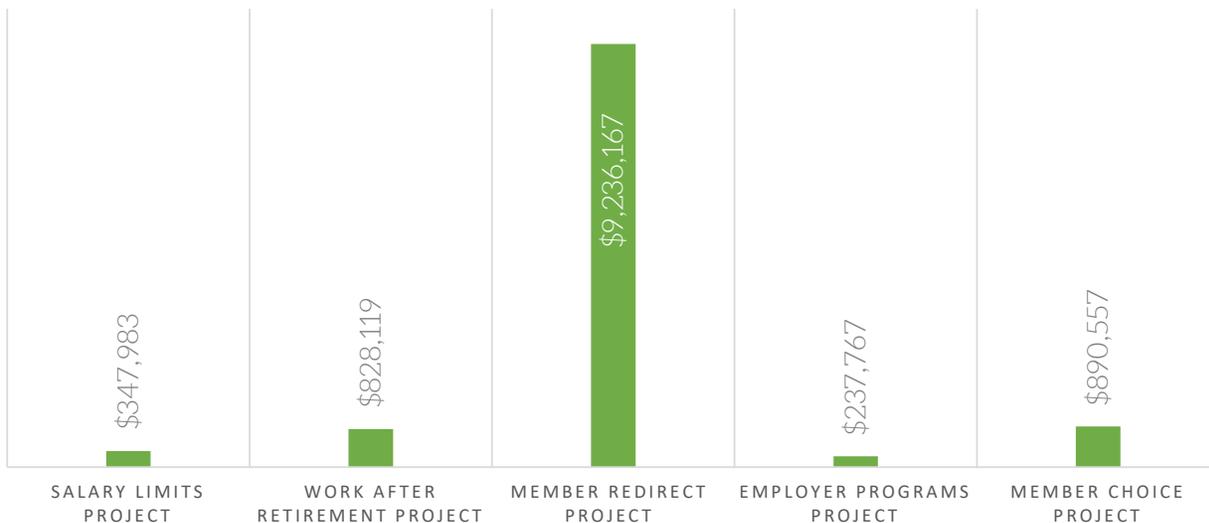
Biennial Summary

Category	Actual Exp. To Date	Projected Expenditures	Total Est. Expend.	2019-21 LAB	Variance
Personal Services	1,709,887	1,787,496	3,497,383	5,646,497	2,149,114
Services & Supplies	9,467,215	11,498,656	20,965,871	22,913,217	1,947,346
Capital Outlay	363,491		363,491		(363,491)
Total	11,540,593	13,286,152	24,826,745	28,559,714	3,732,969

EXPENDITURES BY PACKAGE



EXPENDITURES BY PROJECT





Oregon

Kate Brown, Governor

Public Employees Retirement System

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P.O. Box 23700
Tigard, OR 97281-3700
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October 2, 2020

TO: Members of the PERS Board
FROM: Stephanie Vaughn, Manager, Policy Analysis & Compliance Section
SUBJECT: Notice of Rulemaking for Police Officer and Firefighter Eligibility Rule:
OAR 459-075-0200, *Retirement Eligibility for Police Officer and Firefighter Members*

OVERVIEW

- Action: None. This is notice that staff has begun rulemaking.
- Reason: Define “continuously” as a period during which the member is employed in a qualifying position as a police officer or firefighter in consecutive months without interruption. Clarify that Leave Without Pay (LWOP) is not a break in service even for periods of more than a month.
- Policy Issue: None identified.

BACKGROUND

ORS 238A.160 and 238A.165 pertaining to normal and early retirement age for OPSRP members provide that police officer and firefighter (P&F) members must hold their positions “continuously” for a period of not less than five years immediately preceding their effective retirement date to qualify for P&F retirement timing. When OAR 459-075-0200 was last updated in 2012, a definition for “continuously” was added to provide clarity to the previously undefined term, providing that it meant a “period of employment during which the member accrues retirement credit in consecutive months without interruption.”

Over time, however, it became clear that the definition as written inadvertently caused any Leave Without Pay (LWOP) period totaling one month or longer to restart the clock on the five year statutory period to qualify for P&F retirement age eligibility. This was an unintended consequence. We are bringing the rule back to the board to address this LWOP issue. The rule has been edited to clarify that continuous employment is when a member is employed in a qualifying position as a P&F member in consecutive months without interruption.

PUBLIC COMMENT AND HEARING TESTIMONY

No rulemaking hearing will be held because the PERS building is closed to the public. The public comment period ends November 3, 2020, at 5:00 p.m.

LEGAL REVIEW

The attached draft rule was submitted to the Department of Justice for legal review and any comments or changes will be incorporated before the rule is presented for adoption.

IMPACT

Mandatory: No.

Benefit: Clarifies that LWOP is not a break in service, even for periods of more than a month, so long as a member remains employed in one or more qualifying positions as a police officer or firefighter in consecutive months without interruption

Cost: There are no discrete costs attributable to the rule.

RULEMAKING TIMELINE

September 30, 2020	Staff began the rulemaking process by filing a Notice of Rulemaking with the Secretary of State.
October 2, 2020	PERS Board notified that staff began the rulemaking process.
October 2, 2020	Secretary of State publishes the Notice in the Oregon Administrative Rules Database. Notice is sent to employers, legislators, and interested parties. Public comment period begins.
November 3, 2020	Public comment period ends at 5:00 p.m.
December 4, 2020	Staff will propose adopting the rule modifications, including any changes resulting from public comment or reviews by staff or legal counsel.

NEXT STEPS

The rule is scheduled to be brought before the PERS Board for adoption at the December 4, 2020 board meeting.

B.1. Attachment 1 – 459-075-0200, *Retirement Eligibility for Police Officer and Firefighter Members*

**OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 075 – OPSRP PENSION PROGRAM**

1 **459-075-0200**

2 **Retirement Eligibility for Police Officer and Firefighter Members**

3 (1) For purposes of this rule:

4 (a) “Police officer” and “firefighter” have the same meaning given them in ORS

5 238A.005.

6 (b) “Continuously” means a period *[of employment]* during which the member *[accrues*
7 *retirement credit]* is employed in one or more qualifying positions as a police officer or
8 firefighter in consecutive months without interruption.

9 (2) For the purpose of establishing eligibility for normal retirement under ORS
10 238A.160(2) and early retirement under 238A.165(2), an OPSRP Pension Program member
11 will be considered to have held a position as a police officer or firefighter continuously for a
12 period of not less than five years immediately preceding the effective date of retirement if:

13 (a) The member was employed in a qualifying position as a police officer or firefighter
14 continuously for five years prior to the date of the member’s termination from that
15 employment; and

16 (b) The member’s effective date of retirement is the first of the month following
17 termination from that employment.

18 (3) A member who is concurrently employed by two or more employers in qualifying
19 positions as a police officer or firefighter and as other than a police officer or firefighter is
20 employed as a police officer or firefighter for purposes of this rule.

21 Stat. Auth.: ORS 238A.450

22 Stats. Implemented: 238A.160 & 238A.165



Oregon

Kate Brown, Governor

Public Employees Retirement System

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www.oregon.gov/pers

October 2, 2020

TO: Members of the PERS Board

FROM: Stephanie Vaughn, Manager, Policy Analysis & Compliance Section

SUBJECT: Notice of Rulemaking for SB 1049 EPSA Earnings Crediting and Work After Retirement Payroll Rules:
 OAR 459-007-0370, *Crediting Earnings to the Employee Pension Stability Account on Withdrawal*
 OAR 459-009-0070, *Actuarial Pooling of Employer Liability*
 OAR 459-017-0060, *Reemployment of Retired Members*
 OAR 459-075-0300, *Reemployment of a Retired Member of the OPSRP Pension Program*

OVERVIEW

- Action: None. This is notice that staff has begun rulemaking.
- Reason: Clarify how earnings should be credited to the Employee Pension Stability Account (EPSA) on withdrawal, and clarify terminology used with respect to employer contribution rates for PERS retirees.
- Policy Issue: No policy issues have been identified at this time.

BACKGROUND

Administrative rules implementing the member redirect and work after retirement provisions of SB 1049 were adopted prior to the effective dates of the respective provisions. Since implementation, staff has been refining processes and making any necessary adjustments to PERS' administration of those provisions. We are now circling back to make a couple of small adjustments in the administrative rules to address concerns that have been identified since our original implementation.

The Employee Pension Stability Account (EPSA) earnings crediting rule OAR 459-007-0370 was initially adopted at the June 2020 board meeting to explain how earnings should be credited upon withdrawal for the EPSA. The rule was initially modeled after the Tier Two withdrawal rule and was drafted using the same concept of an effective date of withdrawal, which is a defined term. Under the Tier Two process, members receive Tier Two earnings up to their effective date of withdrawal and distribution interest from the effective date of withdrawal to the actual date of distribution. Under ORS 238.470, PERS cannot pay interest on payments from the system unless specifically allowed by statute. The EPSA accounts are established and administered under ORS Chapter 238A and there is no provision allowing for interest on the EPSA payments. However, ORS 238A.353 does require the EPSA accounts to receive earnings until distributed. As staff worked through the elaboration process and reflected on the statutory requirements involved, we realized that, in situations where there is a delay in processing a

withdrawal, under the current rule, it is possible that an EPSA would not receive full earnings crediting required under the statute. To ensure that members receive earnings to the date of distribution, we have altered the structure of the rule to bring it in line with the IAP withdrawal rule. When withdrawals are processed timely, there is no difference in the effect of the two structures, but the structure of the IAP rule will ensure the member receives earnings to the date of distribution in situations where there is a delay in processing.

The work after retirement provisions of SB 1049 allow retired members in all PERS pension programs (Tier 1/Tier 2 and OPSRP) to work unlimited hours for PERS participating employers in calendar years 2020-2024 without impacting their ability to receive retirement benefits. The bill also included a new provision that required employers to pay additional employer contributions on wages of retirees working post-retirement as if they were active members. The additional contributions would be applied to the employer's liabilities, and could be used to pay down an employer's UAL at an accelerated rate. The rules implementing these provisions were adopted in January 2020.

Employer rates are reflected as a percentage of covered payroll. The OAR amendments adopted in January 2020 used the term active members instead of covered payroll. The amendments presented today correct the terminology for consistency.

In addition, staff is working on addressing a concern regarding employers that have a very small or nonexistent active member payroll. When an employer has no active member payroll when employer rates are set, the employer rate is zero; when an employer has a small active member payroll when employer rates are set, the employer rate tends to be high. Staff is working on the best way to determine what to charge these employers when they hire PERS retirees. To this end, we anticipate additional amendments to the rules prior to adoption.

PUBLIC COMMENT AND HEARING TESTIMONY

No rulemaking hearing will be held because the PERS building is closed to the public. The public comment period ends November 3, 2020, at 5:00 p.m.

LEGAL REVIEW

The attached draft rules were submitted to the Department of Justice for legal review and any comments or changes will be incorporated before the rules are presented for adoption.

IMPACT

Mandatory: No, but statute authorizes the board to update its rules as necessary to implement Senate Bill 1049 (2019).

Benefit: Clarify how earnings should be credited to the Employee Pension Stability Account (EPSA) on withdrawal, and updates the rules to reflect consistent terminology use with respect to employer rates for retiree wages.

Cost: There are no discrete costs attributable to the rules.

RULEMAKING TIMELINE

September 30, 2020	Staff began the rulemaking process by filing a Notice of Rulemaking with the Secretary of State.
October 2, 2020	PERS Board notified that staff began the rulemaking process.
October 2, 2020	Secretary of State publishes the Notice in the Oregon Administrative Rules Database. Notice is sent to employers, legislators, and interested parties. Public comment period begins.
November 3, 2020	Public comment period ends at 5:00 p.m.
December 4, 2020	Staff will propose adopting the rule modifications, including any changes resulting from public comment or reviews by staff or legal counsel.

NEXT STEPS

The public comment period will end on November 3, 2020. The rules are scheduled to be brought before the PERS Board for adoption at the December 4, 2020 board meeting.

- B.2. Attachment 1 – 459-007-0370, *Crediting Earnings to the Employee Pension Stability Account on Withdrawal*
- B.2. Attachment 2 – 459-009-0070, *Actuarial Pooling of Employer Liability*
- B.2. Attachment 3 – 459-017-0060, *Reemployment of Retired Members*
- B.2. Attachment 4 – 459-075-0300, *Reemployment of a Retired Member of the OPSRP Pension Program*

**OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 7 – EARNINGS AND INTEREST DISTRIBUTION**

1 **459-007-0370**

2 **Crediting Earnings to the Employee Pension Stability Account on Withdrawal**

3 (1) When a member withdraws his or her Employee Pension Stability Account
4 (EPSA) under ORS 238A.375, earnings or losses shall be credited in the manner
5 specified in this rule.

6 (2) Earnings or losses on the member’s EPSA shall be credited as follows:

7 (a) If earnings or losses for the calendar year prior to the date of distribution
8 *[effective date of withdrawal]* have not been credited, earnings or losses for that year
9 shall be credited to the member’s EPSA based on the latest year-to-date calculation for
10 that year.

11 (b) Earnings or losses *[from January 1 of]* credited for the calendar year of
12 distribution *[the effective date of withdrawal to the effective date of withdrawal]* shall be
13 credited to the member’s EPSA based on the latest year-to-date calculation as of the first
14 day of the calendar month of the date of distribution*[effective date of withdrawal]*.

15 Stat. Auth.: ORS 238.650 & 238A.450

16 Stats. Implemented: ORS 238.265 & 238A.353

**OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 009 – PUBLIC EMPLOYER**

1 **459-009-0070**

2 **Actuarial Pooling of Employer Liability**

3 (1) Definitions. Definitions as used in this rule:

4 (a) “Actuarial Surplus” means the excess of the fair market actuarial value of assets
5 over the actuarial liabilities.

6 (b) “Consolidation” means the uniting or joining of two or more political
7 subdivisions into a single new successor political subdivision.

8 (c) “Liability” or “Liabilities” means any costs assigned by the Board to a specific
9 employer or to a pool of employers to provide PERS benefits.

10 (d) “Local government” shall have the same meaning as in subsection (f) of this
11 section.

12 (e) “Merger” means the extinguishment, termination and cessation of the existence of
13 one or more political subdivisions by uniting with and being absorbed into another
14 political subdivision.

15 (f) “Political subdivision” means any city, county, municipal or public corporation,
16 any other political subdivision as provided in Oregon Law, or any instrumentality thereof,
17 or an agency created by one or more political subdivisions to provide themselves
18 governmental service. Political subdivision does not mean a school district or a
19 community college.

20 (g) “Pooled” or “pooling” means the combining or grouping of public employers
21 participating in PERS for the purposes of determining employer liability for retirement or
22 other benefits under ORS Chapter 238.

1 (h) “School district” means a common school district, a union high school district, or
2 an education service district, including chartered schools authorized under Oregon law.

3 (i) “Transition Unfunded Actuarial Liabilities or Surplus” means the unfunded
4 actuarial liability or actuarial surplus, attributed to an individual employer for the period
5 of time the employer was not participating in a pool, prior to entry into the Local
6 Government Rate Pool or the State and Local Government Rate Pool.

7 (j) “Unfunded Actuarial Liabilities” or “UAL” means the excess of the actuarial
8 liabilities over the fair market actuarial value of assets.

9 (2) Two employer pools. In accordance with ORS 238.225 and only for the purposes
10 of determining the amounts that are actuarially necessary to adequately fund the benefits
11 provided by the contributions of PERS participating employers, employers will be pooled
12 as a single employer as follows:

13 (a) The State and Local Government Rate Pool, which consists of the following
14 employers:

15 (A) The State of Oregon, excluding the state judiciary under ORS 238.500;

16 (B) All community colleges; and

17 (C) All political subdivisions which elect to join the pool; or

18 (b) The School District Pool, which consists of all school districts of the state.

19 (3) The Local Government Rate Pool established as of January 1, 2000, and certified
20 by the Board on June 12, 2001, for political subdivisions was dissolved as of December
21 31, 2001.

22 (4) Political subdivision participation. Political subdivisions may elect to participate
23 in the State and Local Government Rate Pool by the adoption of a resolution or ordinance

1 by the governing body of the political subdivision and submitting a copy of the resolution
2 or ordinance to the Board. The effective date of the election is established as follows:

3 (a) If the election is received, in accordance with OAR 459-005-0220, by December
4 31, 2001, the political subdivision will join the pool effective January 1, 2002. Its liability
5 as a member of the pool, from the effective date of entering the pool, will be based on the
6 actuarial valuation period beginning on January 1, 2002; or

7 (b) If the election is received, in accordance with OAR 459-005-0220, on or after
8 January 1, 2002, the political subdivision will join the pool effective the first day of the
9 next actuarial valuation period following the date of receipt of the election.

10 (c) Prior to entering the pool, any unfunded actuarial liabilities or surplus of such
11 employers will be actuarially accounted for as provided in section (10) of this rule.

12 (d) Participation in the pool, as provided in this section, is irrevocable by the
13 employer.

14 (e) Political subdivisions that do not elect to participate in the State and Local
15 Government Rate Pool, as provided in this section, shall be regarded as individual
16 employers for actuarial purposes.

17 (5) Employer rates. The basis for any actuarial computation required under ORS
18 238.225 or this rule will be the actuarial report on PERS prepared in accordance with
19 ORS 238.605.

20 (6) In determining the amounts to be paid to PERS by a public employer pooled as
21 provided in section (2) of this rule, the PERS consulting actuary will express those
22 amounts as a rate or percentage of PERS covered payroll.

1 (7) In determining the amounts to be paid to PERS by employer participants in the
2 Local Government Rate Pool, the State and Local Government Rate Pool, and the School
3 District Pool, the PERS Board will issue rate(s) representing the amount necessary to
4 provide benefits as provided in ORS 238.225, for all members of that pooled group. The
5 rates, at a minimum, shall include:

6 (a) Rates representing the amount necessary to provide benefits as provided in ORS
7 238.225, for all Tier One and Tier Two police officer and firefighter members of that
8 pooled group.

9 (b) Rates representing the amount necessary to provide benefits as provided in ORS
10 238.225, for all Tier One and Tier Two general service members of that pooled group.

11 (c) In addition to the rate(s) in this section, the State of Oregon will be charged the
12 additional amount necessary to fund the Retiree Health Insurance Premium Account as
13 provided in ORS 238.415(5).

14 (8) A public employer employing a retired member shall apply the employer’s net
15 contribution rate for its *[active members]* covered payroll to the wages paid to the retired
16 member based upon the employee’s pension program membership at the time of the
17 member’s retirement and the job classification of the position in which the retired
18 member is employed. Such employer shall make a payment to the Public Employees
19 Retirement Fund. This payment is in addition to the employer’s contribution required
20 under ORS 238.225 or 238A.220.

21 (a) Retired member wages will not be included in covered payroll for purposes of
22 determining the employer’s contribution rate.

1 (b) The additional payment will be applied to the employer’s rate pool’s liabilities,
2 including pension benefit costs and retiree medical benefit costs.

3 (c) If the employer has a side account established under ORS 238.229, or any other
4 individual surplus or liability that applies to the employer’s contribution rate for its active
5 members, that surplus or liability will be applied to the employer’s contribution rate for
6 its retired members.

7 (9) For each participant in the State and Local Government Rate Pool:

8 (a) Each employer’s police officer and firefighter payroll as reported for the actuarial
9 valuation will be multiplied times the rate described in subsection (7)(a) of this rule;

10 (b) Each employer’s general service payroll as reported for the actuarial valuation
11 will be multiplied times the rate described in subsection (7)(b) of this rule.

12 (c) By dividing the sum of the amounts in subsections (a) and (b) of this section by
13 the employer’s total payroll as reported for the actuarial valuation, a composite employer
14 contribution rate is derived, which will be the basis for the employer contributions.

15 (10) Unfunded actuarial liabilities or surplus.

16 (a) If a political subdivision elected to join the Local Government Rate Pool
17 described in section (3) of this rule, any transition unfunded actuarial liabilities or surplus
18 as of December 31, 1999, will remain part of the actuarial calculation of employer costs
19 for the individual political subdivision, until fully amortized, and will not be pooled with
20 other public employers. However, the political subdivision will continue to be pooled for
21 the purpose of funding the resulting unfunded actuarial liabilities associated with the
22 Local Government Rate Pool from January 1, 2000 to December 31, 2001.

1 (b) If a political subdivision elects to join the State and Local Government Rate Pool
2 as provided in section (4) of this rule, any transition unfunded actuarial liabilities or
3 surplus as of the day immediately preceding the effective date of entering the pool will
4 remain part of the actuarial calculation of employer costs for each individual political
5 subdivision, until fully amortized, and will not be pooled with other public employers in
6 the State and Local Government Rate Pool.

7 (c) The pooled unfunded actuarial liability or surplus for the community colleges and
8 the State of Oregon as of December 31, 2001, will remain part of the actuarial calculation
9 of employer costs for community colleges and the State of Oregon combined until fully
10 amortized, and will not be pooled with any political subdivision.

11 (d) Any unfunded actuarial liability or surplus for the State and Local Government
12 Rate Pool that accrues during a valuation period occurring after December 31, 2001, will
13 become part of the actuarial calculation of employer costs for only those employers who
14 participated in the pool during that valuation period.

15 (e) Any unfunded actuarial liabilities or surplus of individual employers being
16 amortized as provided for in subsection (a), (b), or (c) of this section, will be amortized
17 based on the Board’s adopted assumed earnings rate and amortization period. If at the end
18 of the amortization period a surplus remains, the surplus will continue to be amortized as
19 determined by the Board.

20 (f) If the PERS Board should change the assumed earnings rate, as it applies to ORS
21 238.255, in effect at the time of the amortization provided for in subsection (a), (b), or (c)
22 of this section, the actuary will recalculate the remaining liability or surplus being

1 amortized using the new assumed earnings rate. The amortization period provided in
2 subsection (e) of this section will not change due to this recalculation.

3 (11) Employer UAL lump-sum payment. If an employer elects to make a UAL lump-
4 sum payment to offset the unfunded actuarial liabilities under subsection (10)(a), (b), (c),
5 or (d) of this rule, or as provided under ORS 238.225(8), the payment shall be made in
6 accordance with ORS 238.225 and OAR 459-009-0084.

7 (12) New employers and integrations. Political subdivisions entering PERS, as
8 provided in ORS 238.015(3), 238.035, or 238.680, will be pooled upon election to join
9 the State and Local Government Rate Pool as follows:

10 (a) To join the pool upon entering PERS, the election as well as the methods and
11 effective date of entry, must be included in the coverage agreement or contract of
12 integration. If the election is made after the effective date of joining PERS, the political
13 subdivision will join the pool effective the first day of the next actuarial valuation period
14 following the date of receipt of the election.

15 (b) An election completed by an integrating employer or a partially integrated
16 employer will apply to all current and future groups of employees who are integrated into
17 PERS by the employer. Upon entering the respective pool, any unfunded actuarial
18 liabilities or surplus of such employers will be actuarially accounted for as provided in
19 section (10) of this rule.

20 (13) Dissolution of an employer or non-participating employer. In the event a public
21 employer is dissolved, no longer has PERS eligible employees, or is no longer eligible to
22 participate in PERS, the employer or its successor will be required to make the
23 contributions necessary to fund any remaining unfunded actuarial liability, as provided

1 for in subsection (10)(a), (b), or (c) of this rule, for PERS benefits. The Board will
2 determine the method and amount of funding this unfunded actuarial liability or the return
3 of any surplus, as well as the determination of the employer’s successor.

4 (14) Consolidation of political subdivisions. In the event a political subdivision
5 consolidates with another political subdivision, the succeeding employer will determine
6 the status in the pool by election into the pool.

7 (a) If the succeeding employer has not elected to join the pool as of the effective date
8 of the consolidation, the following will occur:

9 (A) The pooled and non-pooled assets, liabilities, and employees of the former
10 employers will continue as they were prior to the consolidation;

11 (B) Any unfunded actuarial liability or surplus of the former employers as of the
12 effective date of the consolidation will be combined and assumed by the succeeding
13 employer;

14 (C) New hires will not be pooled; and

15 (D) If the succeeding employer consists of pooled and non-pooled employees,
16 separate payrolls must be maintained for each and reported to PERS.

17 (E) At any time after the consolidation, the succeeding employer may elect to join
18 the pool and the effective date will be the first day of the next actuarial valuation period
19 following the date of receipt of an election.

20 (b) If the succeeding employer elects to join the pool as of the effective date of the
21 consolidation, the following will occur:

22 (A) Any non-pooled assets, liabilities, and employees of the former employers will
23 be added to the pool;

1 (B) Any unfunded actuarial liability or surplus of the former employers as of the
2 effective date of the consolidation will be combined and assumed by the succeeding
3 employer and provided for as in subsection (10)(a) or (b) of this rule; and

4 (C) New hires will be pooled.

5 (c) The succeeding employer must join the pool as of the effective date of the
6 consolidation if it consists of only pooled employers. Any unfunded actuarial liability or
7 surplus of the former employers as of the effective date of the consolidation will be
8 combined and assumed by the succeeding employer.

9 (15) Merger of political subdivisions. In the event a political subdivision merges with
10 another political subdivision, the status of the surviving employer in the pool depends on
11 its status prior to the merger.

12 (a) If the surviving employer was not in the pool and has not elected to join the pool
13 as of the effective date of the merger, the following will occur:

14 (A) The pooled and non-pooled assets, liabilities, and employees of the former
15 employers will continue as they were prior to the merger;

16 (B) Any unfunded actuarial liability or surplus of the former employers as of the date
17 of the merger will be transferred to the surviving employer;

18 (C) New hires will not be pooled; and

19 (D) If the surviving employer consists of pooled and non-pooled employees, separate
20 payrolls must be maintained for each and reported to PERS.

21 (E) At any time after the merger, the surviving employer may elect to join the pool
22 and the effective date will be the first day of the next actuarial valuation period following
23 the date of receipt of an election.

1 (b) If the surviving employer was in the pool as of the effective date of the merger,
2 the following will occur:

3 (A) Any non-pooled assets, liabilities, and employees of the former employers will
4 be added to the pool as of the effective date of the merger;

5 (B) Any unfunded actuarial liability or surplus of the former employers as of the
6 effective date of the merger will be transferred to the surviving employer and provided for
7 in subsection (10)(a) or (b) of this rule; and

8 (C) New hires will be pooled.

9 (16) In the event of any legal mandates or changes adopted by the Board:

10 (a) If the change provides for an increased or decreased benefit to police officer and
11 firefighter members, but is not applicable to general service members, the PERS Board
12 will direct the actuary to attribute the cost or savings of the change to the rate indicated in
13 subsection (7)(a) of this rule.

14 (b) If the change provides for an increased or decreased benefit to general service
15 members, but is not applicable to police officer or firefighter members, the PERS Board
16 will direct the actuary to attribute the cost or savings of the change to the rate indicated in
17 subsection (7)(b) of this rule.

18 (17) Section (8) of this rule is repealed effective January 2, 2025.

19 Stat. Auth.: ORS 238.650

20 Stats. Implemented: 2005 OL, Ch. 808, Sec. (12), (13), (14), ORS 238.225 &
21 238.605, 2019 OL, Ch. 355, Sec. 35 & 37

**OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 017 – REEMPLOYED RETIRED MEMBERS**

1 **459-017-0060**

2 **Reemployment of Retired Members**

3 (1) For purposes of this rule:

4 (a) “Bona fide retirement” means that the retired member has been absent from
5 service with all participating employers and all employers in a controlled group with a
6 participating employer for at least six full calendar months between the effective date of
7 retirement and the date of hire.

8 (b) “Retired member” means a member of the PERS Chapter 238 Program who is
9 retired for service.

10 (2) A retired member may be employed under ORS 238.082 by a participating
11 employer without loss of retirement benefits provided:

12 (a) The period or periods of employment with one or more participating employers
13 total less than 1,040 hours in a calendar year; or

14 (b) If the retired member is receiving retirement, survivors, or disability benefits
15 under the federal Social Security Act, the period or periods of employment total less than
16 either 1,040 hours in a calendar year, or the total number of hours in a calendar year that,
17 at the retired member’s specified hourly rate of pay, would cause the annual
18 compensation of the retired member to exceed the following Social Security annual
19 compensation limits, whichever is greater.

20 (A) For retired members who have not reached full retirement age under the Social
21 Security Act, the annual compensation limit is \$18,240; or

1 (B) For the calendar year in which the retired member reaches full retirement age
2 under the Social Security Act and only for compensation for the months before reaching
3 full retirement age, the annual compensation limit is \$48,600.

4 (3) The limitations on employment in section (2) of this rule do not apply if the
5 retired member has reached full retirement age under the Social Security Act.

6 (4) The limitations on employment in section (2) of this rule do not apply if:

7 (a) The retired member meets the requirements of ORS 238.082(4), (5), (6), (7), or
8 (8), and did not retire at a reduced benefit under the provisions of ORS 238.280(1), (2), or
9 (3);

10 (b) The retired member retired at a reduced benefit under ORS 238.280(1), (2), or
11 (3), is employed in a position that meets the requirements of ORS 238.082(4), the date of
12 hire is more than six months after the member’s effective retirement date, and the
13 member’s retirement otherwise meets the standard of a bona fide retirement;

14 (c) The retired member is employed by a school district or education service district
15 as a speech-language pathologist or speech-language pathologist assistant and:

16 (A) The retired member did not retire at a reduced benefit under the provisions of
17 ORS 238.280(1) or (3); or

18 (B) The retired member retired at a reduced benefit under the provisions of ORS
19 238.280(1) or (3), but is not employed by any participating employer until more than six
20 months after the member’s effective retirement date, and the member’s retirement
21 otherwise meets the standard of a bona fide retirement;

22 (d) The retired member meets the requirements of section 2, chapter 499, Oregon
23 Laws 2007, as amended by section 1, chapter 108, Oregon Laws 2015;

1 (e) The retired member meets the requirements of section 2, chapter 475, Oregon
2 Laws 2015;

3 (f) The retired member is employed for service during a legislative session under
4 ORS 238.092(2);

5 (g) The retired member meets the requirements of ORS 238.088(2), and did not
6 retire at a reduced benefit under the provisions of ORS 238.280(1), (2), or (3); or

7 (h) The retired member is on active state duty in the organized militia and meets the
8 requirements under ORS 399.075(8).

9 (i) The retired member is employed as a special campus security officer
10 commissioned by a public university and meets the requirements under section 5, chapter
11 152, Oregon Laws 2019.

12 (j) The retired member is employed as a security officer for a community college and
13 meets the requirements under section 5, chapter 152, Oregon Laws 2019.

14 (k) The retired member is employed by Harney County Health District as a person
15 licensed, registered or certified to provide health services and meets the requirements
16 under section 2, chapter 496, Oregon Laws 2019.

17 (5) For purposes of population determinations referenced by statutes listed in this
18 rule, the latest federal decennial census shall first be operative on the first day of the
19 second calendar year following the census year.

20 (6) For purposes of ORS 238.082(6), a retired member replaces an employee if the
21 retired member:

22 (a) Is assigned to the position of the employee; and

23 (b) Performs the duties of the employee or duties that might be assigned to an
24 employee in that position.

1 (7) If a retired member is reemployed subject to the limitations of ORS 238.082 and
2 section (2) of this rule, the period or periods of employment subsequently exceed those
3 limitations, and employment continues into the month following the date the limitations
4 are exceeded:

5 (a) If the member has been retired for six or more calendar months:

6 (A) PERS will cancel the member's retirement.

7 (i) If the member is receiving a monthly service retirement allowance, the last
8 payment to which the member is entitled is for the month in which the limitations were
9 exceeded.

10 (ii) If the member is receiving installment payments under ORS 238.305(4), the last
11 installment payment to which the member is entitled is the last payment due on or before
12 the last day of the month in which the limitations were exceeded.

13 (iii) If the member received a single lump sum payment under ORS 238.305(4) or
14 238.315, the member is entitled to the payment provided the payment was dated on or
15 before the last day of the month in which the limitations were exceeded.

16 (iv) A member who receives benefits to which he or she is not entitled must repay
17 those benefits to PERS.

18 (B) The member will reestablish active membership the first of the calendar month
19 following the month in which the limitations were exceeded.

20 (C) The member's account must be rebuilt in accordance with the provisions of
21 section (9) of this rule.

22 (b) If the member has been retired for less than six calendar months:

23 (A) PERS will cancel the member's retirement effective the date the member was
24 reemployed.

1 (B) All retirement benefits received by the member must be repaid to PERS in a
2 single payment.

3 (C) The member will reestablish active membership effective the date the member
4 was reemployed.

5 (D) The member account will be rebuilt as of the date that PERS receives the single
6 payment. The amount in the member account must be the same as the amount in the
7 member account at the time of the member's retirement.

8 (8) For purposes of determining period(s) of employment in section (2) of this rule:

9 (a) Hours of employment are hours on and after the retired member's effective
10 retirement date for which the member receives wages, salary, paid leave, or other
11 compensation.

12 (b) Hours of employment that are performed under the provisions of section (4) of
13 this rule on or after the later of January 1, 2004, or the operative date of the applicable
14 statutory provision, are not counted.

15 (9) If a member has been retired for service for more than six calendar months and is
16 reemployed in a qualifying position by a participating employer under the provisions of
17 238.078(1):

18 (a) PERS will cancel the member's retirement effective the date the member is
19 reemployed.

20 (b) The member will reestablish active membership on the date the member is
21 reemployed.

22 (c) If the member elected a benefit payment option other than a lump sum option
23 under ORS 238.305(2) or (3), the last monthly service retirement allowance payment to
24 which the member is entitled is for the month before the calendar month in which the

1 member is reemployed. Upon subsequent retirement, the member may choose a different
2 benefit payment option.

3 (A) The member’s account will be rebuilt as required by ORS 238.078 effective the
4 date active membership is reestablished.

5 (B) Amounts from the Benefits-In-Force Reserve (BIF) credited to the member’s
6 account under the provisions of paragraph (A) of this subsection will be credited with
7 earnings at the BIF rate or the assumed rate, whichever is less, from the date of retirement
8 to the date of active membership.

9 (d) If the member elected a partial lump sum option under ORS 238.305(2), the last
10 monthly service retirement allowance payment to which the member is entitled is for the
11 month before the calendar month in which the member is reemployed. The last lump sum
12 or installment payment to which the member is entitled is the last payment due before the
13 date the member is reemployed. Upon subsequent retirement, the member may not
14 choose a different benefit payment option unless the member has repaid to PERS in a
15 single payment an amount equal to the lump sum and installment benefits received and
16 the earnings that would have accumulated on that amount.

17 (A) The member’s account will be rebuilt as required by ORS 238.078 effective the
18 date active membership is reestablished.

19 (B) Amounts from the BIF credited to the member’s account under the provisions of
20 paragraph (A) of this subsection, excluding any amounts attributable to repayment by the
21 member, will be credited with earnings at the BIF rate or the assumed rate, whichever is
22 less, from the date of retirement to the date of active membership.

23 (e) If the member elected the total lump sum option under ORS 238.305(3), the last
24 lump sum or installment payment to which the member is entitled is the last payment due

1 before the date the member is reemployed. Upon subsequent retirement, the member may
2 not choose a different benefit payment option unless the member has repaid to PERS in a
3 single payment an amount equal to the benefits received and the earnings that would have
4 accumulated on that amount.

5 (A) If the member repays PERS as described in this subsection the member's
6 account will be rebuilt as required by ORS 238.078 effective the date that PERS receives
7 the single payment.

8 (B) If any amounts from the BIF are credited to the member's account under the
9 provisions of paragraph (A) of this subsection, the amounts may not be credited with
10 earnings for the period from the date of retirement to the date of active membership.

11 (f) If the member received a lump sum payment under ORS 238.315:

12 (A) If the payment was dated before the date the member is reemployed, the member
13 is not required or permitted to repay the benefit amount. Upon subsequent retirement:

14 (i) The member may choose a different benefit payment option.

15 (ii) The member's retirement benefit will be calculated based on the member's
16 periods of active membership after the member's initial effective retirement date.

17 (B) If the payment was dated on or after the date the member is reemployed, the
18 member must repay the benefit amount. Upon subsequent retirement:

19 (i) The member may choose a different benefit payment option.

20 (ii) The member's retirement benefit will be calculated based on the member's
21 periods of active membership before and after the member's initial effective retirement
22 date.

23 (iii) The member's account will be rebuilt as described in ORS 238.078(2).

1 (g) A member who receives benefits to which he or she is not entitled must repay
2 those benefits to PERS.

3 (10) If a member has been retired for less than six calendar months and is
4 reemployed in a qualifying position by a participating employer under the provisions of
5 238.078(2):

6 (a) PERS will cancel the member’s retirement effective the date the member is
7 reemployed.

8 (b) All retirement benefits received by the member must be repaid to PERS in a
9 single payment.

10 (c) The member will reestablish active membership effective the date the member is
11 reemployed.

12 (d) The member account will be rebuilt as of the date that PERS receives the single
13 payment. The amount in the member account must be the same as the amount in the
14 member account at the time of the member’s retirement.

15 (e) Upon subsequent retirement, the member may choose a different benefit payment
16 option.

17 (11) Upon the subsequent retirement of any member who reestablished active
18 membership under ORS 238.078 and this rule, the retirement benefit of the member must
19 be calculated using the actuarial equivalency factors in effect on the effective date of the
20 subsequent retirement.

21 (12) The provisions of paragraphs (9)(c)(B), (9)(d)(B), and (9)(e)(B) of this rule are
22 applicable to retired members who reestablish active membership under ORS 238.078
23 and this rule and whose initial effective retirement date is on or after March 1, 2006.

1 (13) A participating employer that employs a retired member must notify PERS in a
2 format acceptable to PERS under which statute the retired member is employed.

3 (a) Upon request by PERS, a participating employer must certify to PERS that a
4 retired member has not exceeded the number of hours allowed under ORS 238.082 and
5 section (2) of this rule.

6 (b) Upon request by PERS a participating employer must provide PERS with
7 business and employment records to substantiate the actual number of hours a retired
8 member was employed.

9 (c) Participating employers must provide information requested under this section
10 within 30 days of the date of the request.

11 (14) Accumulated unused sick leave reported by an employer to PERS upon a
12 member's retirement, as provided in ORS 238.350, may not be made available to a
13 retired member returning to employment under sections (2) or (9) of this rule.

14 (15) Subsections (4)(c) and (4)(d) of this rule are repealed effective January 2, 2026.

15 (16) Subsection (4)(e) of this rule is repealed effective June 30, 2023.

16 (17) A member who is retired for service maintains their status as a retired member
17 of the system, and does not accrue additional benefits during the period of employment.
18 A retired member may not participate in the pension program or the Individual Account
19 Program as an active member, except as provided by ORS 238.092(1) or 237.650.

20 (18) For calendar years 2020 through 2024, a public employer employing a retired
21 member shall apply the employer's net contribution rate for its *[active members]* covered
22 payroll to the wages paid to the retired member. The public employer shall make a
23 payment to the Public Employees Retirement Fund in that amount. This payment is in
24 addition to the employer's contribution required under ORS 238.225, and will be applied

1 to the employer’s liabilities, including pension benefit costs and retiree medical benefit
2 costs. If the employer is a member of a pool established under ORS 238.227, the
3 additional payment will be applied to the employer’s rate pool’s liabilities.

4 (19) For calendar years 2020 through 2024, the limitations on employment in section
5 (2) of this rule do not apply to a retired member unless the member retired under the
6 provisions of ORS 238.280(1), (2), or (3), and does not have a bona fide retirement.

7 (20) For calendar years 2020 through 2024, if the member retired under the
8 provisions of ORS 238.280(1), (2), or (3), and does not have a bona fide retirement, the
9 member is subject to the limitations on employment in section (2) of this rule.

10 (21) Sections (18), (19), and (20) of this rule are repealed effective January 2, 2025.

11 Stat. Auth.: ORS 238.650 & ORS 238.630

12 Stats. Implemented: ORS 238.078, ORS 238.082, ORS 238.088, ORS 238.092, ORS
13 399.075, 2007 OL Ch. 499 & 774, 2015 OL Ch. 108 & 475, 2018 OL Ch. 48 & 2019 OL
14 Ch. 355

**OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 075 – OPSRP PENSION PROGRAM**

1 **459-075-0300**

2 **Reemployment of a Retired Member of the OPSRP Pension Program**

3 (1) For purposes of this rule, “bona fide retirement” means that the retired member
4 has been absent from service with all participating employers and all employers in a
5 controlled group with a participating employer for at least six full calendar months
6 between the effective date of retirement and the date of hire.

7 (2) If a retired member of the OPSRP Pension Program who is receiving monthly
8 pension payments is employed by a participating public employer in a qualifying
9 position:

10 (a) The member’s retirement is canceled effective the first of the month in which the
11 member was hired.

12 (b) The last pension payment the member is entitled to receive is for the month
13 before the calendar month in which the member was hired. A member who receives
14 benefits to which he or she is not entitled must repay those benefits to PERS.

15 (c) The member reestablishes active membership effective the date the member was
16 hired.

17 (3) If a retired member of the OPSRP Pension Program who received a lump sum
18 benefit in lieu of a small pension under ORS 238A.195 is employed by a participating
19 public employer in a qualifying position, the member reestablishes active membership
20 effective the date of hire.

21 (a) If the member was hired after the date of the payment, the member is not required
22 or permitted to repay the benefit amount.

1 (b) If the member was hired on or before the date of the payment, the member must
2 repay the gross benefit amount.

3 (4) A retired member of the OPSRP Pension Program who is hired by a participating
4 public employer in a non-qualifying position may receive pension payments or a lump
5 sum payment under ORS 238A.195 without affecting the member’s status as a retired
6 member, provided the period or periods of employment worked as a retired member total
7 less than 600 hours in a calendar year.

8 (a) If, by reason of hours of service performed by the retired member, the non-
9 qualifying position becomes qualifying in a calendar year, the position is qualifying
10 effective the later of the first day of the calendar year or the date of hire.

11 (A) If the member retired under the provisions of ORS 238A.185 and was retired for
12 six or more calendar months before returning to work for a PERS participating employer,
13 the member’s retirement benefits shall end and the member shall reestablish active
14 membership as of the date the position becomes qualifying under subsection (a) of this
15 section.

16 (B) If the member retired under the provisions of ORS 238A.185 and was retired for
17 less than six calendar months before returning to work for a PERS participating
18 employer, the member’s retirement shall be canceled and the member shall reestablish
19 active membership as of the date the position becomes qualifying under subsection (a) of
20 this section.

21 (b) If a position becomes qualifying under subsection (a) of this section, the retired
22 member is subject to the provisions of sections (2) and (3) of this rule.

1 (5) A retired member who reestablishes active membership may, at subsequent
2 retirement, elect any option provided in ORS 238A.180 and 238A.190, subject to the
3 provisions of ORS 238A.195.

4 (a) The member’s subsequent retirement benefit will be calculated based on the
5 member’s periods of active membership before and after the member’s initial effective
6 retirement date if at the initial retirement:

7 (A) The member received a monthly pension; or

8 (B) The member received a lump sum payment under ORS 238A.195 and repaid the
9 benefit amount under subsection (3)(b) of this rule.

10 (b) The member’s subsequent retirement benefit will be calculated based on the
11 member’s periods of active membership after the member’s initial effective retirement
12 date if:

13 (A) At initial retirement, the member received a lump sum payment under ORS
14 238A.195 and was not required to repay the benefit amount under subsection (3)(a) of
15 this rule; or

16 (B) The member is required to repay the benefit amount under subsection (3)(b) of
17 this rule and, as of the effective retirement date of the member’s subsequent retirement,
18 the member has not repaid the benefit amount.

19 (c) The member’s subsequent retirement benefit will be calculated using the actuarial
20 equivalency factors in effect on the effective retirement date of the subsequent retirement.

21 (6) A member who is retired for service maintains the member’s status as a retired
22 member of the system and does not accrue additional benefits during the period of
23 employment. A retired member may not participate in the pension program or the

1 Individual Account Program as an active member, except as provided by ORS 238A.250
2 or 237.650.

3 (7) For calendar years 2020 through 2024, a public employer employing a retired
4 member shall apply the employer’s net contribution rate for its *[active members]* covered
5 payroll to the wages paid to the retired member. The public employer shall make a
6 payment to the Public Employees Retirement Fund in that amount. This payment is in
7 addition to the employer’s contribution required under ORS 238A.220 and will be
8 applied to the employer’s liabilities, including pension benefit costs and retiree medical
9 benefit costs.

10 (8) For calendar years 2020 through 2024, the limitations on employment in section
11 (4) of this rule do not apply to a retired member unless the member retired under the
12 provisions of ORS 238A.185 and does not have a bona fide retirement.

13 (9) For calendar years 2020 through 2024, if a member retired under the provisions
14 of ORS 238A.185 and does not have a bona fide retirement, the member is subject to the
15 limitations on employment in section (4) of this rule.

16 (10) Sections 7, 8, and 9 of this rule are repealed effective January 2, 2025.

17 Stat. Auth.: ORS 238.630 & 238A.450

18 Stats. Implemented: ORS 238A.245, 2019 OL, Ch. 355, Sec. 37



Oregon

Kate Brown, Governor

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October 2, 2020

TO: Members of the PERS Board

FROM: Stephanie Vaughn, Manager, Policy Analysis & Compliance Section

SUBJECT: Suspension of Temporary COVID-19 Mitigation Rules:
 OAR 459-001-0100, *Temporary Administrative Rule Relating to Executive Order 20-03 Declaration of Emergency Due to Coronavirus (COVID-19) Outbreak in Oregon*
 OAR 459-001-0110, *Temporary Rule Relating to Executive Order 20-03 Declaration of Emergency Due to Coronavirus (COVID-19) Outbreak in Oregon*

Temporary Adoption and Notice of Rulemaking for PHIP Premium Payment and Employer Incentive Fund (EIF) Rules:

OAR 459-035-0090, *Retiree Health Insurance Premium Payment Process*

OAR 459-009-0092, *Temporary Rule for Employer Incentive Fund Program*

OAR 459-009-0092-1, *Employer Incentive Fund Program*

OVERVIEW

- Actions:
 - Suspend existing temporary rules related to COVID-19 mitigation requirements.
 - Adopt new temporary PHIP Premium Payment rule and new temporary Employer Incentive Fund (EIF) rules containing COVID-19 mitigation requirements and begin permanent rulemaking.
- Reason for Temporary Rule: Adopt temporary administrative rule necessary to mitigate the impact of the Coronavirus (COVID-19) outbreak on PERS members and employers until permanent rules can be adopted.
- Reason for Permanent Rulemaking: Adopt permanent administrative rule necessary to mitigate the impact of the Coronavirus (COVID-19) outbreak on PERS members and employers and amend one provision of the Employer Incentive Fund program.
- Policy Issue: None identified.

BACKGROUND

On March 8, 2020, Governor Kate Brown issued Executive Order 20-03 declaring a state of emergency and instructing state agencies to develop and implement procedures designed to prevent or alleviate the public health threat caused by the COVID-19 outbreak in Oregon.

In response to the COVID-19 outbreak, PERS adopted two temporary rules with mitigating provisions for members and employers. Temporary rules expire after 180 days. The state of

emergency has extended longer than anticipated and certain conditions have changed since the original temporary rules were adopted. This memo outlines a course of action to address the provisions of the soon-to-expire temporary rules.

On March 25, 2020, the Insurance Commissioner of the Department of Consumer and Business Services (DCBS) issued an emergency Health Insurance Order requiring health insurance providers in Oregon to indefinitely suspend all policy terminations.

At the April 2020 meeting, the board adopted temporary OAR 459-001-0100 suspending all PERS Health Insurance Program (PHIP) policy terminations during the Governor's state of emergency. The PHIP mitigation provision followed the emergency Health Insurance Order issued by the Department of Consumer and Business Services (DCBS).

At the May 2020 meeting, the board adopted temporary OAR 459-001-0110, which includes the PHIP provision and added provisions concerning mitigation actions with respect to the Employer Incentive Fund (EIF).

In May, DCBS allowed its original emergency order to expire and issued a new emergency Health Insurance Order. The new emergency order requires health insurance providers in Oregon to give policyholders a minimum grace period of 60 days to make any premium payments due. The requirement that health insurance providers indefinitely suspend policy terminations is no longer in effect.

Temporary rules cannot be amended. In order to incorporate the current DCBS provision, the existing temporary rules must be suspended and the provision incorporated into a new temporary rule. Given that the state of emergency is extending longer than anticipated, staff is recommending incorporating a provision into the existing PHIP rule; however, rather than incorporate the precise requirements of the current emergency order, the amendment will instead provide that no person's PERS-sponsored health insurance coverage will be terminated in a manner contrary to any emergency health insurance order and that any payment due dates will be adjusted to the extent required by the emergency order. This framework will allow staff to respond to changing requirements in real time without needing to engage the board in further rulemaking each time requirements change.

This provision has been added to the PHIP rule and staff is presenting it now for temporary adoption to be effective immediately, as well as providing notice of permanent rulemaking. Because temporary OAR 459-001-0110 also impacts EIF mitigation actions, staff are also proposing rulemaking regarding the EIF to ensure these provisions remain in effect. The provision extending the payment date for the current application cycle to December 1 in the temporary COVID-19 rule has been incorporated into OAR 459-009-0092, which staff is also presenting for temporary adoption.

In addition to the COVID-19 mitigating provision, staff has made additional amendments to the EIF rule to be considered in the permanent rulemaking process; these amendments are presented in OAR 459-009-0092-1 and are not included in the temporary EIF rule for adoption today. The current EIF rule allows an employer to change certain aspects of their application. To provide PERS the ability to properly manage funds in the EIF, particularly when there are potential or anticipated changes to the amount of funds available to match employer lump sum payments,

staff have edited the rule to require any change in the employer's application to be approved by PERS before the change is effective.

JUSTIFICATION FOR TEMPORARY RULEMAKING

Due to the nature of the COVID-19 pandemic, exceptions to certain timelines are necessary to accommodate Governor Brown's Executive Order.

LEGAL REVIEW

The attached draft rules were submitted to the Department of Justice for legal review and any comments or changes will be incorporated before the rules are presented for permanent adoption.

EFFECTIVE DATE

The temporary rule will become effective upon filing. The maximum period it can remain in effect is 180 days, so staff has initiated permanent rulemaking to replace the temporary rule.

IMPACT

Mandatory: No.

Benefit: Updates temporary rules to align with current COVID-19 mitigation requirements and mitigate the impact of the COVID-19 outbreak on PERS members and employers. Aligns PHIP administrative rules with current legal requirements and allows the agency to respond to changing requirements in the future.

Mandatory: No, but the Governor has advised agencies to develop and implement procedures, including waiving rules or adopting temporary rules, within the agency's authority, to prevent or alleviate the public health threat. Also, extending the indefinite suspension of PHIP policy terminations when no longer required creates risks for PERS' continuing relationships with contracted health insurance providers, due to the additional costs these providers will incur by maintaining policies for non-paying members.

Cost: There are no discrete costs attributable to the rules.

RULEMAKING TIMELINE

September 30, 2020	Staff began the permanent rulemaking process by filing Notice of Rulemaking with the Secretary of State.
October 2, 2020	PERS Board may suspend the current temporary COVID-19 mitigation rules and adopt the proposed temporary rule, effective for 180 days; PERS staff will proceed with permanent rulemaking unless otherwise directed.
October 2, 2020	Secretary of State publishes the Notice in the Oregon Administrative Rules Database. Notice is sent to employers, legislators, and interested parties. Public comment period begins.
November 3, 2020	Public comment period ends at 5:00 p.m.

December 4, 2020

Staff will propose adopting the permanent rules, including any changes resulting from public comment or reviews by staff or legal counsel. The permanent rules replace the previously adopted temporary rule.

BOARD OPTIONS

The PERS Board may:

1. Pass a motion to “suspend temporary rules OAR 459-001-0100 and 459-001-0110 and adopt temporary rules OAR 459-035-0090 and 459-009-0092 as presented.”
2. Direct staff to make other changes to the rules or explore other options.

STAFF RECOMMENDATION

Staff recommends the PERS Board choose Option #1.

- Reason: Suspending the temporary COVID-19 mitigation rules will allow the board to adopt updated temporary rules and begin permanent rulemaking to align with current COVID-19 mitigation requirements.

If the PERS Board does not adopt: Staff would return with rule modifications that more closely fit the board’s policy direction if the PERS Board determines that a change is warranted.

B.3. Attachment 1 – 459-001-0100, *Temporary Administrative Rule Relating to Executive Order 20-03 Declaration of Emergency Due to Coronavirus (COVID-19) Outbreak in Oregon*

B.3. Attachment 2 – 459-001-0110, *Temporary Rule Relating to Executive Order 20-03 Declaration of Emergency Due to Coronavirus (COVID-19) Outbreak in Oregon*

B.3. Attachment 3 – 459-035-0090, *Retiree Health Insurance Premium Payment Process*

B.3. Attachment 4 – 459-009-0092-1, *Employer Incentive Fund Program*

B.3. Attachment 5 – 459-009-0092, *Temporary Rule for Employer Incentive Fund Program*

**OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 1 – PROCEDURAL RULES**

1 **[459-001-0100**

2 ***Temporary Administrative Rule Relating to Executive Order 20-03 Declaration of***
3 ***Emergency Due to Coronavirus (COVID-19) Outbreak in Oregon***

4 *(1) Authorized by Executive Order 20-03 (Section 5), instructing that State agencies*
5 *shall develop and implement procedures, including waiving rules or adopting temporary*
6 *rules within the agency’s authority, consistent with recommendations from the state Public*
7 *Health Director, designed to prevent or alleviate the public health threat, and in response*
8 *to Executive Order 20-03 Section 1(d) limitations put upon employers and members that*
9 *are affected by guidelines issued by the Governor for private businesses and public*
10 *buildings regarding appropriate work restrictions, and in response to Executive Order 20-*
11 *03 Section 3 limitations put on members that are affected by heeding the advice of*
12 *emergency officials regarding the outbreak, temporary rules are adopted as follows:*

13 *(2) Health Insurance Premium Payments. During the period in which the Governor’s*
14 *Executive Order No. 20-03 (Declaration of Emergency Due to Coronavirus (COVID-19)*
15 *Outbreak in Oregon) remains in effect, no person’s PERS-sponsored health insurance*
16 *coverage shall be terminated under OAR 459-035-0090(4) for failure to make payment of*
17 *monthly contributions by the applicable due date. Any person whose payments are*
18 *received in full by the Third Party Administrator within 30 days after the state of*
19 *emergency is no longer in effect shall be deemed to have submitted timely payments during*
20 *the state of emergency for purposes of OAR 459-035-0090.*

21 *Stat. Auth.: ORS Chapters 238 & 238A*

22 *Stats. Implemented: ORS Chapters 238 & 238A]*

**OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 1 – PROCEDURAL RULES**

1 ***[459-001-0110***

2 ***Temporary Rule Relating to Executive Order 20-03 Declaration of Emergency Due to***
3 ***Coronavirus (COVID-19) Outbreak in Oregon***

4 *Authorized by Executive Order 20-03 (Section 5), instructing that State agencies*
5 *shall develop and implement procedures, including waiving rules or adopting temporary*
6 *rules within the agency's authority, consistent with recommendations from the state*
7 *Public Health Director, designed to prevent or alleviate the public health threat, and in*
8 *response to Executive Order 20-03 Section 1(d) limitations put upon employers and*
9 *members that are affected by guidelines issued by the Governor for private businesses*
10 *and public buildings regarding appropriate work restrictions, and in response to*
11 *Executive Order 20-03 Section 3 limitations put on members that are affected by heeding*
12 *the advice of emergency officials regarding the outbreak, temporary rules are adopted as*
13 *follows:*

14 *(1) Health Insurance Premium Payments. During the period in which the*
15 *Governor's Executive Order No. 20-03 (Declaration of Emergency Due to Coronavirus*
16 *(COVID-19) Outbreak in Oregon) remains in effect, no person's PERS-sponsored health*
17 *insurance coverage shall be terminated under OAR 459-035-0090(4) for failure to make*
18 *payment of monthly contributions by the applicable due date. Any person whose*
19 *payments are received in full by the Third Party Administrator within 30 days after the*
20 *state of emergency is no longer in effect shall be deemed to have submitted timely*
21 *payments during the state of emergency for purposes of OAR 459-035-0090.*

1 *(2) Employer Incentive Fund Payment Due Date Extension. During the August 16,*
2 *2019 supplemental PERS Board meeting, the Board established September 3, 2019 as the*
3 *begin date for the first Employer Incentive Fund (EIF) application cycle.*

4 *(a) According to OAR 459-009-0092, PERS employers that have successfully*
5 *submitted their applications and were accepted to participate in the EIF program during*
6 *the EIF application cycle established on September 3, 2019, must make their lump-sum*
7 *payment no later than 12 months after the date the application cycle opens; in other*
8 *words, August 31, 2020.*

9 *(b) Due to the COVID-19 pandemic and its impact on the budgets of many*
10 *participating employers, the Board is extending the EIF employer lump-sum payment*
11 *deadline from August 31, 2020 to December 1, 2020, for the application cycle established*
12 *on September 3, 2019. Employers that wish to extend their payment deadline under this*
13 *temporary rule must notify PERS of the new payment date at least five business days*
14 *before the date the employer indicated it would make the payment, and the new payment*
15 *date must be no later than December 1, 2020.*

16 *Stat. Auth.: ORS Chapters 238 & 238A*

17 *Stats. Implemented: ORS Chapters 238 & 238A]*

**OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 035 – HEALTH INSURANCE PROGRAMS**

1 **459-035-0090**

2 **Retiree Health Insurance Premium Payment Process**

3 (1) An eligible person who elects to participate in a PERS-sponsored health
4 insurance plan shall choose one of the following methods for the payment of
5 contributions for that coverage:

6 (a) The direct payment method by an electronic transfer of the monthly contribution
7 for the PERS-sponsored health insurance plan from an eligible person's bank account to
8 the Third Party Administrator; or

9 (b) The direct payment method by issuing a check or money order for the monthly
10 contribution for the PERS-sponsored health insurance plan to the Third Party
11 Administrator; or

12 (c) The pension deduction method wherein PERS shall deduct the monthly
13 contribution from the service or disability retirement allowance or other benefit payable
14 to the eligible person and forward the contribution to the Standard Retiree Health
15 Insurance Account.

16 (A) The total monthly contribution due shall be deducted for the benefit option
17 selected by the eligible person.

18 (B) If an eligible person's monthly PERS benefits are not sufficient to cover the
19 monthly contribution for the PERS-sponsored health insurance plan, the deduction
20 method may not be used.

21 (2) Employee contributions for the PERS-sponsored health insurance plan shall be
22 paid monthly and shall consist of the following:

1 (a) The premium charged by the carrier for the eligible person’s health insurance
2 coverage, less any amount contributed on the eligible person’s behalf from the RHIA or
3 RHIPA; and

4 (b) The eligible person’s share of the administrative costs incurred by PERS in
5 administering the health insurance program as provided for in ORS 238.410(4).

6 (3) If payment is by check or money order, the check or money order must be
7 physically received by the Third Party Administrator on or before the due date.

8 (4) Failure to make the payment by the due date shall result in termination of a
9 person’s PERS-sponsored health insurance coverage.

10 **(5) Notwithstanding section (4) of this rule, no person’s PERS-sponsored health**
11 **insurance coverage shall be terminated in a manner contrary to the requirements of**
12 **any emergency order issued by the Governor or the Department of Consumer and**
13 **Business Services regarding termination of health insurance policies. When any**
14 **such emergency order is in effect, the due date referenced in section (4) of this rule**
15 **shall be extended to the extent required by such emergency order.**

16 **[5](6)** On receipt of an eligible person’s contribution, the Third Party Administrator
17 shall deposit the contributions in the Standard Retiree Health Insurance Account.

18 Amounts deposited in the Standard Retiree Health Insurance Account shall be used only
19 to pay health insurance premiums on behalf of eligible persons and the costs incurred by
20 PERS in administering the health insurance program.

21 Stat. Auth.: ORS 238.410 & 238.650

22 Stats. Implemented: ORS 238.410, 238.415 & 238.420

**OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 009 – PUBLIC EMPLOYER**

1 **459-009-0092-1**

2 **Employer Incentive Fund Program**

3 The words and phrases used in this rule have the same meaning given them in OAR
4 459-009-0086.

5 (1) When the PERS Board determines that a sufficient amount of money has been
6 allocated to the Employer Incentive Fund, it shall open an application period by declaring:

7 (a) The date upon which the application period shall open; and

8 (b) The total amount of funds available for matching employer UAL lump-sum
9 payments during the application period.

10 (2) The application period shall end at the earlier of:

11 (a) 12 months after the application period start date; or

12 (b) Once all funds available for matching employer UAL lump-sum payments
13 declared in subsection (1)(b) of this rule have been paid out.

14 (3) Unless otherwise specified in this rule, all the requirements and timelines
15 established in OAR 459-009-0084, 459-009-0085, and 459-009-0086 apply to UAL lump-
16 sum payments made in association with the Employer Incentive Fund Program.

17 (4) During the first 90 days of an application period, applications for the Employer
18 Incentive Fund Program will only be open to employers with an unfunded actuarial
19 liability greater than 200 percent of the employer's PERS payroll. After the first 90 days
20 have expired, applications will be open to all PERS participating employers.

21 (5) A PERS employer seeking participation in the Employer Incentive Fund Program
22 must submit an application to PERS and provide:

1 (a) The amount of the UAL lump-sum payment. The amount eligible for matching
2 funds excludes:

- 3 (A) Side account deposits of less than \$25,000; and
- 4 (B) Any amount that will be applied to any outstanding transition liability;
- 5 (b) The date the employer made, or intends to make, the UAL lump-sum payment.

6 Such date must be:

- 7 (A) No earlier than June 2, 2018; and
- 8 (B) No later than 12 months after the date the application period opens;
- 9 (c) A statement that the UAL lump-sum payment is not sourced from any type of
10 borrowed funds;

11 (d) The information required under OAR 459-009-0084(2)(c), if the employer is
12 making a UAL lump-sum payment under OAR 459-009-0084(2); and

13 (e) Proof of participation in the Unfunded Actuarial Liability Resolution Program as
14 provided under OAR 459-009-0091.

15 (6) PERS shall allocate a match amount equal to 25 percent of the eligible employer
16 UAL lump-sum payment amount indicated in subsection (5)(a) of this rule upon approval
17 of the employer’s application; however, such allocated match amount may not exceed the
18 greater of:

19 (a) Five percent of the unfunded liability attributable to the employer applying to
20 participate in the Employer Incentive Fund Program; or

21 (b) \$300,000.

22 (7) For the purposes of sections (4) and (6) of this rule, the unfunded actuarial liability
23 calculated by the PERS consulting actuary for the most recent actuarial report prepared
24 under ORS 238.605 as of the application period start date will be used.

1 (8) Notwithstanding section (6) of this rule, in the event that moneys in the Employer
2 Incentive Fund are not sufficient to match the entire 25% of an employer’s UAL lump-sum
3 payment commitment, only available moneys will be used in the match.

4 (9) PERS shall process the applications and allocate matching funds based upon the
5 order in which the applications are received.

6 (10) Except as otherwise provided in this rule, an employer will fail to qualify to
7 participate in the Employer Incentive Fund Program, thereby forfeiting any allocated
8 matching funds, if PERS does not receive the UAL lump-sum payment the employer has
9 committed under subsection (5)(a) of this rule on the due date specified in the application.

10 An employer may change, subject to PERS’ discretion and approval:

11 (a) The amount of the UAL lump-sum payment indicated in its application.

12 (A) If the UAL lump-sum payment amount is increased, only the original amount will
13 be eligible for matching funds; and

14 (B) If the UAL lump-sum payment amount is decreased:

15 (i) The new amount must be at least \$25,000; and

16 (ii) Any allocated matching funds will be decreased proportionately.

17 (b) The date of the UAL lump-sum payment indicated in its application.

18 (A) The employer must notify PERS at least five business days before the date the
19 employer indicated it would make the payment; and

20 (B) The new payment date must be within 12 months after the date the application
21 period opened.

22 (c) The rate offset date or UAL lump-sum payment amount for employers making
23 UAL lump-sum payments under OAR 459-009-0084.

24 (A) The employer will need to request and pay for a new actuarial calculation; and

1 (B) The UAL lump-sum payment must be made within 12 months after the date the
2 application period opens to remain eligible to receive matching funds.

3 (11) An employer must notify PERS and receive approval from PERS if it
4 intends to make the UAL lump-sum payment prior to the payment due date under
5 subsection (5)(b) or (10)(b) of this rule.

6 ~~[(11)]~~(12) Once all the funds identified in subsection (1)(b) of this rule have been
7 allocated, employers applying for matching funds will be placed on a waiting list.

8 (a) If moneys become available again during the same application period, the
9 employers on the waiting list will receive matching allocations based upon the order in
10 which their applications were received.

11 (b) If additional moneys become available on the last day of the application period,
12 employers on the waiting list that are notified they will receive a matching allocation will
13 have an additional five days to submit their UAL lump-sum payment.

14 (13) The Board is extending the EIF employer lump-sum payment deadline from
15 August 31, 2020 to December 1, 2020, for the application cycle established on
16 September 3, 2019. Employers that wish to extend their payment deadline under this
17 section of the rule must notify PERS of the new payment date at least five business
18 days before the date the employer indicated it would make the payment, and the new
19 payment date must be no later than December 1, 2020.

20 ~~[(12)]~~(14) OAR 459-009-0084(8), 459-009-0085(4) and (5), and 459-009-0086(7) do
21 not apply to UAL lump-sum payments receiving matching funds under this rule.

22 Stat. Auth.: ORS 238.650 & 238A.450

23 Stats. Implemented: ORS 238.225 - 238.229

**OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 009 – PUBLIC EMPLOYER**

1 **459-009-0092**

2 **Temporary Rule for Employer Incentive Fund Program**

3 The words and phrases used in this rule have the same meaning given them in OAR
4 459-009-0086.

5 (1) When the PERS Board determines that a sufficient amount of money has been
6 allocated to the Employer Incentive Fund, it shall open an application period by declaring:

7 (a) The date upon which the application period shall open; and

8 (b) The total amount of funds available for matching employer UAL lump-sum
9 payments during the application period.

10 (2) The application period shall end at the earlier of:

11 (a) 12 months after the application period start date; or

12 (b) Once all funds available for matching employer UAL lump-sum payments
13 declared in subsection (1)(b) of this rule have been paid out.

14 (3) Unless otherwise specified in this rule, all the requirements and timelines
15 established in OAR 459-009-0084, 459-009-0085, and 459-009-0086 apply to UAL lump-
16 sum payments made in association with the Employer Incentive Fund Program.

17 (4) During the first 90 days of an application period, applications for the Employer
18 Incentive Fund Program will only be open to employers with an unfunded actuarial
19 liability greater than 200 percent of the employer’s PERS payroll. After the first 90 days
20 have expired, applications will be open to all PERS participating employers.

21 (5) A PERS employer seeking participation in the Employer Incentive Fund Program
22 must submit an application to PERS and provide:

1 (a) The amount of the UAL lump-sum payment. The amount eligible for matching
2 funds excludes:

3 (A) Side account deposits of less than \$25,000; and

4 (B) Any amount that will be applied to any outstanding transition liability;

5 (b) The date the employer made, or intends to make, the UAL lump-sum payment.

6 Such date must be:

7 (A) No earlier than June 2, 2018; and

8 (B) No later than 12 months after the date the application period opens;

9 (c) A statement that the UAL lump-sum payment is not sourced from any type of
10 borrowed funds;

11 (d) The information required under OAR 459-009-0084(2)(c), if the employer is
12 making a UAL lump-sum payment under OAR 459-009-0084(2); and

13 (e) Proof of participation in the Unfunded Actuarial Liability Resolution Program as
14 provided under OAR 459-009-0091.

15 (6) PERS shall allocate a match amount equal to 25 percent of the eligible employer
16 UAL lump-sum payment amount indicated in subsection (5)(a) of this rule upon approval
17 of the employer's application; however, such allocated match amount may not exceed the
18 greater of:

19 (a) Five percent of the unfunded liability attributable to the employer applying to
20 participate in the Employer Incentive Fund Program; or

21 (b) \$300,000.

22 (7) For the purposes of sections (4) and (6) of this rule, the unfunded actuarial liability
23 calculated by the PERS consulting actuary for the most recent actuarial report prepared
24 under ORS 238.605 as of the application period start date will be used.

1 (8) Notwithstanding section (6) of this rule, in the event that moneys in the Employer
2 Incentive Fund are not sufficient to match the entire 25% of an employer’s UAL lump-sum
3 payment commitment, only available moneys will be used in the match.

4 (9) PERS shall process the applications and allocate matching funds based upon the
5 order in which the applications are received.

6 (10) Except as otherwise provided in this rule, an employer will fail to qualify to
7 participate in the Employer Incentive Fund Program, thereby forfeiting any allocated
8 matching funds, if PERS does not receive the UAL lump-sum payment the employer has
9 committed under subsection (5)(a) of this rule on the due date specified in the application.

10 An employer may change:

11 (a) The amount of the UAL lump-sum payment indicated in its application.

12 (A) If the UAL lump-sum payment amount is increased, only the original amount will
13 be eligible for matching funds; and

14 (B) If the UAL lump-sum payment amount is decreased:

15 (i) The new amount must be at least \$25,000; and

16 (ii) Any allocated matching funds will be decreased proportionately.

17 (b) The date of the UAL lump-sum payment indicated in its application.

18 (A) The employer must notify PERS at least five business days before the date the
19 employer indicated it would make the payment; and

20 (B) The new payment date must be within 12 months after the date the application
21 period opened.

22 (c) The rate offset date or UAL lump-sum payment amount for employers making
23 UAL lump-sum payments under OAR 459-009-0084.

24 (A) The employer will need to request and pay for a new actuarial calculation; and

1 (B) The UAL lump-sum payment must be made within 12 months after the date the
2 application period opens to remain eligible to receive matching funds.

3 (11) Once all the funds identified in subsection (1)(b) of this rule have been allocated,
4 employers applying for matching funds will be placed on a waiting list.

5 (a) If moneys become available again during the same application period, the
6 employers on the waiting list will receive matching allocations based upon the order in
7 which their applications were received.

8 (b) If additional moneys become available on the last day of the application period,
9 employers on the waiting list that are notified they will receive a matching allocation will
10 have an additional five days to submit their UAL lump-sum payment.

11 **(12) The Board is extending the EIF employer lump-sum payment deadline from**
12 **August 31, 2020 to December 1, 2020, for the application cycle established on**
13 **September 3, 2019. Employers that wish to extend their payment deadline under this**
14 **section of the rule must notify PERS of the new payment date at least five business**
15 **days before the date the employer indicated it would make the payment, and the new**
16 **payment date must be no later than December 1, 2020.**

17 ~~[(12)]~~**(13)** OAR 459-009-0084(8), 459-009-0085(4) and (5), and 459-009-0086(7) do
18 not apply to UAL lump-sum payments receiving matching funds under this rule.

19 Stat. Auth.: ORS 238.650 & 238A.450

20 Stats. Implemented: ORS 238.225 - 238.229



Oregon

Kate Brown, Governor

Public Employees Retirement System

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October 2, 2020

TO: Members of the PERS Board
FROM: Stephanie Vaughn, Manager, Policy Analysis & Compliance Section
SUBJECT: Adoption of Disability Definitions Rules:
OAR 459-015-0001, *Definitions*
OAR 459-076-0001, *Definitions*

OVERVIEW

- Action: Adopt the disability definitions rules.
- Reason: Include certain forms of gambling winnings under definition of “earned income” for purposes of disability benefit eligibility.
- Policy Issue: None identified.

BACKGROUND

PERS members who receive a disability retirement allowance (Tiers One and Two) or a disability benefit (OPSRP) are subject to certain limitations regarding the receipt of “earned income” while disabled. Under ORS 238.330(3), PERS must reduce a Tier One or Two member’s disability retirement allowance for any month in which the combined total of the disability retirement allowance plus earned income exceeds the member’s monthly salary at the time of disability retirement. Under OAR 459-076-0005(7), an OPSRP disability benefit will be discontinued if a member receiving the benefit “becomes employed or receives earned income.”

“Earned income” is defined in OAR 459-015-0001 (Tiers One and Two) and 459-076-0001 (OPSRP). These definitions provide that, in addition to salary and wages, “earned income” includes a variety of “self-employment income” sources, such as “hobby income.” Historically, PERS has considered most gambling winnings to be a form of “hobby income,” and therefore “earned income,” for purposes of disability income limitations. Members have raised concerns about this interpretation, noting that the current definition of “earned income” does not specify how PERS treats gambling income in the disability context. In addition, a member recently challenged PERS’ interpretation of the rule in a contested case hearing, arguing that gambling income should not be considered earned income. An administrative law judge upheld PERS’ interpretation of the rule in that case, noting that many forms of gambling require the application of skill, judgment, and effort, which distinguishes gambling from purely passive forms of income that are excluded from the definition of “earned income.”

To ensure that members have adequate notice of PERS’ treatment of gambling income in the disability context, the proposed rules modify the definition of “earned income” to explicitly include most forms of gambling income. Staff have recognized a need to exclude certain forms of “unskilled” gambling—such as slot machines and lotteries—from this definition in order to avoid extreme or inequitable outcomes for members, particularly in the OPSRP context where

receipt of earned income results in discontinuation of a member’s disability benefit. Therefore, the rules exclude gambling income derived from “sweepstakes, lotteries, bingo, keno, or slot machines.” These forms of gambling are reported via IRS Form W-2G and can be easily identified, as the nature of the gambling activity will be susceptible to documentary proof during a member’s disability income review.

SUMMARY OF MODIFICATIONS TO RULES SINCE NOTICE

No modifications were made to the rules.

PUBLIC COMMENT AND HEARING TESTIMONY

No rulemaking hearing was held because the PERS headquarters building was closed to the public. The public comment period ended September 1, 2020, at 5:00 p.m. No public comment was received.

LEGAL REVIEW

The attached draft rules were submitted to the Department of Justice for legal review and any comments or changes are incorporated in the rules as presented for adoption.

IMPACT

Mandatory: No.

Benefit: Clarifies what constitutes “earned income” for purposes of determining disability benefit eligibility.

Cost: There are no discrete costs attributable to the rules.

RULEMAKING TIMELINE

July 31, 2020	PERS Board notified that staff began the rulemaking process.
July 31, 2020	Staff filed a Notice of Rulemaking with the Secretary of State, which was published in the Oregon Administrative Rules Database. Notice was sent to employers, legislators, and interested parties. Public comment period began.
September 1, 2020	Public comment period ended at 5:00 p.m.
October 2, 2020	Board may adopt the rules.

BOARD OPTIONS

The PERS Board may:

1. Pass a motion to “adopt the disability definitions rules, as presented.”
2. Direct staff to make other changes to the rules or explore other options.

STAFF RECOMMENDATION

Staff recommends the PERS Board choose Option #1.

Adoption – Disability Definitions Rules

10/02/20

Page 3 of 3

- Reason: Include certain forms of gambling winnings under definition of “earned income” for purposes of disability benefit eligibility.

If the PERS Board does not adopt: Staff would return with rule modifications that more closely fit the board’s policy direction if the PERS Board determines that a change is warranted.

B.4. Attachment 1 – 459-015-0001, *Definitions*

B.4. Attachment 2 – 459-076-0001, *Definitions*

**OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 015 – DISABILITY RETIREMENT ALLOWANCES**

1 **459-015-0001**

2 **Definitions**

3 The words and phrases used in this division have the same meaning given them in
4 ORS Chapter 238 and OAR 459-005-0001. Additional terms are defined as follows unless
5 the context requires otherwise.

6 (1) “Any work for which qualified” means a job, not necessarily the last or usual job,
7 which the applicant for a disability retirement allowance:

8 (a) Is physically and psychologically capable of performing; and

9 (b) Has, or may obtain with reasonable training the knowledge, skills and abilities, to
10 perform the job.

11 (2) “Certified vocational consultant” means a person who satisfies the criteria set forth
12 under either of the following:

13 (a) A Master’s Degree in vocational rehabilitation, and one year of experience in
14 performing vocation evaluations or developing individualized return-to-work plans; or a
15 Bachelor’s Degree and two years of such experience. All degrees must have been earned at
16 an accredited institution; or

17 (b) Accredited as a Certified Rehabilitation Counselor (CRC) by the Commission on
18 Rehabilitation Counselor Certification; as a Certified Disability Management Specialist
19 (CDMS) by the Certification of Disability Management Specialists Commission; or a
20 Certified Vocational Evaluation Specialist (CVE) or a Certified Work Adjustment
21 Specialist (CWA) by the Commission on Certification of Work Adjustment and
22 Vocational Evaluation Specialists.

1 (3) “Confidential information” means information of a personal nature such that
2 disclosure would constitute an unreasonable invasion of privacy as defined by state law.

3 (4) “Date an application for disability retirement is filed” means the receipt date as
4 determined pursuant to OAR 459-005-0220.

5 (5) “Date of disability” means the later of:

6 (a) The date an active member ceased to work because of inability to perform any
7 work for which qualified due to injury or disease; or

8 (b) The date an inactive member became unable to perform any work for which
9 qualified provided such inability occurred within six months after the date of separation
10 from service.

11 (6) “Date of separation from service” means the later of: the last day worked or the
12 last day of paid leave with a PERS participating employer.

13 (7) “Date of termination” means the date a member terminates from employment such
14 that an employee/employer relationship no longer exists.

15 (8) “Earned income” means income that includes, but is not limited to:

16 (a) Salary or wages received as an employee;

17 (b) Self-employment income from:

18 (A) Services industry;

19 (B) Sales;

20 (C) Assembly or manufacturing;

21 (D) Consulting;

22 (E) Property management;

1 (F) Gambling, other than income from sweepstakes, lotteries, bingo, keno, or slot
2 machines;

3 ~~[F]~~(G) Hobby income; or

4 ~~[G]~~(H) Book advances.

5 (c) “Earned income” does not include:

6 (A) Investment income;

7 (B) Rent; and

8 (C) Royalties.

9 (d) Earned income is deemed to be received by the member on the date it is issued by
10 the payer.

11 (9) “Effective date of disability retirement” means the first day of the month

12 following the date of disability in which all of the following has been met:

13 (a) The member is paid no salary from a participating employer, and

14 (b) The member does not receive paid leave from a participating employer except for
15 any lump sum payment for accrued vacation leave or compensatory time.

16 (10) “Extended duration” means a period of not less than 90 consecutive calendar
17 days, unless the disability is expected to result in the death of the disabled member in less
18 than 90 days.

19 (11) “Granted service” means that portion of creditable service used solely to
20 calculate a disability retirement allowance under ORS 238.320 that is not performed or
21 earned.

1 (12) “Independent medical exam” means an exam or exams conducted by a physician
2 chosen by PERS for purposes other than treatment which results in the issuance of a report
3 or reports based on those exams, giving an opinion regarding the claimed injury or disease.

4 (13) “Material contributing cause” means the efficient, dominant, and proximate
5 cause of the disability, without which the member would not be disabled.

6 (14) “Monthly salary” means “salary” as defined in ORS 238.005 that is earned in the
7 last full calendar month of employment, and includes employer payments under ORS
8 238A.335 and differential wage payments as defined in OAR 459-005-0001.

9 (a) Retroactive payments or payments made due to clerical errors, paid in accordance
10 with ORS 238.005, are allocated to the period the salary was earned or should have been
11 earned.

12 (b) Payments of salary paid within 31 days of separation are allocated to the period
13 the salary was earned and should be considered as paid on the last date of employment.

14 (15) “Monthly salary received” means the greater of the monthly salary paid for the
15 last full calendar month of:

16 (a) Employment before the date of disability; or

17 (b) Differential wage payments made before the date of disability. This subsection is
18 effective January 1, 2009.

19 (16) “Normal retirement age” means the age at which a member can retire without a
20 reduced benefit as set forth under ORS 238.005 and 238.280.

21 (17) “Performance of duty” means whatever an employee may be directed, required
22 or reasonably expected to do in connection with his or her employment, and not solely the
23 duties particular to his or her position.

1 (18) “Periodic review” means a review of a member receiving a disability retirement
2 allowance to determine whether or not a continued allowance is warranted.

3 (19) “Physician” means a medical doctor, a doctor of osteopathy, a doctor of oral
4 surgery, a chiropractic doctor, a naturopathic doctor, or a doctor of psychology practicing
5 only within the purview of their license issued by the designated authority of a state.

6 (20) “Pre-existing condition” means a condition that was not sustained in actual
7 performance of duty in a qualifying position with a participating employer.

8 (21) “Protected health information” means health information created or received by a
9 health care provider, health plan, or health care clearinghouse, where an individual has a
10 reasonable belief that the information can identify the individual, which relates to:

11 (a) The past, present, or future physical or mental health of an individual;

12 (b) The provision of health care to an individual; or

13 (c) The past, present, or future payment for the provision of health care to an
14 individual.

15 (22) “Similar in compensation” means salary or other earned income, excluding
16 overtime, equaling at least 80% of the monthly salary.

17 (23) “Total disability” means the inability to perform any work for which qualified for
18 an extended duration due to physical or mental incapacitation.

19 (24) “Training or vocational rehabilitation program” means a comprehensive,
20 coordinated program, usually state or federally funded, to train and assist individuals with
21 disabilities in securing gainful employment commensurate with their abilities and
22 capabilities.

1 (25) “Vocational evaluation” means an evaluation conducted by a certified vocational
2 consultant, to determine the ability of an applicant to perform any work for which they are
3 qualified.

4 (26) “Work related stress” means conditions or disabilities resulting from, but not
5 limited to:

- 6 (a) Change of employment duties;
- 7 (b) Conflicts with supervisors;
- 8 (c) Actual or perceived threat of loss of a job, demotion, or disciplinary action;
- 9 (d) Relationships with supervisors, coworkers, or the public;
- 10 (e) Specific or general job dissatisfaction;
- 11 (f) Work load pressures;
- 12 (g) Subjective perceptions of employment conditions or environment;
- 13 (h) Loss of job or demotion for whatever reason;
- 14 (i) Fear of exposure to chemicals, radiation biohazards, or other perceived hazards;
- 15 (j) Objective or subjective stresses of employment; or
- 16 (k) Personnel decisions.

17 Stat. Auth.: ORS 238.650

18 Stats. Implemented: ORS 238.320 - 238.345

**OREGON ADMINISTRATIVE RULE
PUBLIC EMPLOYEES RETIREMENT BOARD
CHAPTER 459
DIVISION 076 – OPSRP DISABILITY BENEFIT**

1 **459-076-0001**

2 **Definitions**

3 The words and phrases used in this division have the same meaning given them in ORS
4 Chapter 238A and OAR 459-070-0001. Additional terms are defined as follows unless the
5 context requires otherwise.

6 (1) “Any work for which qualified” means a job, not necessarily the last or usual job,
7 which the applicant for disability benefits:

8 (a) Is physically and psychologically capable of performing; and

9 (b) Has, or may obtain with reasonable training, the knowledge, skills and abilities, to
10 perform the job.

11 (2) “Certified vocational consultant” means a person who satisfies the criteria set forth
12 under either of the following:

13 (a) A Master's Degree in vocational rehabilitation, and one year of experience in
14 performing vocation evaluations or developing individualized return-to-work plans; or a
15 Bachelor's Degree and two years of such experience. All degrees must have been earned at an
16 accredited institution; or

17 (b) Accredited as a Certified Rehabilitation Counselor (CRC) by the Commission on
18 Rehabilitation Counselor Certification; as a Certified Disability Management Specialist
19 (CDMS) by the Certification of Disability Management Specialists Commission; or a
20 Certified Vocational Evaluation Specialist (CVE) or a Certified Work Adjustment Specialist
21 (CWA) by the Commission on Certification of Work Adjustment and Vocational Evaluation
22 Specialists.

1 (3) “Confidential information” means information of a personal nature such that
2 disclosure would constitute an unreasonable invasion of privacy as defined by state law.

3 (4) “Date an application for a disability benefit is filed” means the receipt date as
4 determined pursuant to OAR 459-005-0220.

5 (5) “Date of disability” means the date an active member ceased to work because of
6 inability to perform any work for which qualified due to injury or disease.

7 (6) “Date of separation from service” means the later of: the last day worked or the last
8 day of paid leave with a PERS participating employer.

9 (7) “Date of termination” means the date a member terminates from employment such
10 that an employee/employer relationship no longer exists.

11 (8) “Earned income” includes, but is not limited to:

12 (a) Salary or wages received as an employee;

13 (b) Self-employment income from:

14 (A) Services industry;

15 (B) Sales;

16 (C) Assembly or manufacturing;

17 (D) Consulting;

18 (E) Property management;

19 **(F) Gambling, other than income from sweepstakes, lotteries, bingo, keno, or slot**
20 **machines;**

21 ~~(F)~~**(G)** Hobby income; or

22 ~~(G)~~**(H)** Book advances.

23 (c) “Earned income” does not include:

24 (A) Investment income;

1 (B) Rent; and

2 (C) Royalties.

3 (d) Earned income is deemed to be received by the member on the date it is issued by the
4 payer.

5 (9) “Effective date of disability benefit” means the first day of the month following the
6 date of disability, in which:

7 (a) The member is paid no salary from a participating employer; and

8 (b) The member does not receive paid leave from a participating employer, except for
9 any lump sum payment for accrued vacation leave or compensatory time.

10 (10) “Extended duration” means a period of not less than 90 consecutive calendar days
11 unless the disability is expected to result in the death of the disabled member in less than 90
12 days.

13 (11) “Independent medical exam” means an exam or exams conducted by a physician
14 chosen by PERS for purposes other than for treatment which results in the issuance of a report
15 or reports based on those exams, giving an opinion regarding the claimed injury or disease.

16 (12) “Material contributing cause” means the efficient, dominant, and proximate cause of
17 the disability, without which the member would not be disabled.

18 (13) “Monthly salary” means salary as defined in ORS 238A.005 that is earned in the last
19 full calendar month of employment and includes a differential wage payment, as defined in
20 OAR 459-005-0001.

21 (a) Retroactive payments or payments made due to clerical errors, paid in accordance
22 with ORS 238A.005, are allocated to the period the salary was earned or should have been
23 earned.

1 (b) Payments of salary paid within 31 days of separation are allocated to the period the
2 salary was earned and should be considered as paid on the last date of employment.

3 (14) “Monthly salary received” means the greater of the salary paid for the last full
4 calendar month of:

5 (a) Employment before the date of disability; or

6 (b) Differential wage payments made before the date of disability. This subsection is
7 effective January 1, 2009.

8 (15) “Performance of duty” means whatever an employee may be directed, required or
9 reasonably expected to do in connection with his or her employment, and not solely the duties
10 particular to his or her position.

11 (16) “Periodic review” means a review of a member receiving a disability benefit to
12 determine whether or not a continued benefit is warranted.

13 (17) “Physician” means a medical doctor, a doctor of osteopathy, a doctor of oral
14 surgery, a chiropractic doctor, a naturopathic doctor, or a doctor of psychology practicing
15 only within the purview of their license issued by the designated authority of a state.

16 (18) “Pre-existing condition” means a condition that was not sustained in actual
17 performance of duty in a qualifying position with a participating employer.

18 (19) “Protected health information” means health information created or received by a
19 health care provider, health plan, or health care clearinghouse, where an individual has a
20 reasonable belief that the information can identify the individual, which relates to:

21 (a) The past, present, or future physical or mental health of an individual;

22 (b) The provision of health care to an individual; or

23 (c) The past, present, or future payment for the provision of health care to an individual.

1 (20) “Total disability” means the inability to perform any work for which qualified for an
2 extended duration due to physical or mental incapacitation.

3 (21) “Vocational evaluation” means an evaluation conducted by a certified vocational
4 consultant, to determine the ability of an applicant to perform any work for which they are
5 qualified.

6 (22) “Work related stress” means conditions or disabilities resulting from, but not limited
7 to:

- 8 (a) Change of employment duties;
- 9 (b) Conflicts with supervisors;
- 10 (c) Actual or perceived threat of loss of a job, demotion, or disciplinary action;
- 11 (d) Relationships with supervisors, coworkers, or the public;
- 12 (e) Specific or general job dissatisfaction;
- 13 (f) Work load pressures;
- 14 (g) Subjective perceptions of employment conditions or environment;
- 15 (h) Loss of job or demotion for whatever reason;
- 16 (i) Fear of exposure to chemicals, radiation biohazards, or other perceived hazards;
- 17 (j) Objective or subjective stresses of employment; or
- 18 (k) Personnel decisions.

19 Stat. Auth.: ORS 238A.450

20 Stats. Implemented: ORS 238A.235



Oregon

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October 2, 2020

TO: Members of the PERS Board
FROM: Heather Case, Senior Policy Director
SUBJECT: Legislative Advisory Committee and Legislative Updates

PERS LEGISLATIVE ADVISORY COMMITTEE

ORS 238.660(9) allows the PERS Board to act as policy advisor to the Legislative Assembly on legislative proposals for changes to PERS benefits. ORS 238.660(10) requires the PERS Board to appoint a committee to advise the board on those proposals. The committee must include an equal number of members representing labor and management. In preparation for the 2021 legislative session, staff requests that the board confirm membership of the Legislative Advisory Committee (LAC).

RECOMMENDED APPOINTMENTS

The proposed membership is balanced between labor and management representatives, and includes members who participated in previous LAC meetings. Members have been contacted and are willing to serve on the committee.

Name	Representing
Joe Baessler	American Federation of State, County and Municipal Employees
Rob Bovett	Association of Oregon Counties
Jack Dempsey	Oregon Nurses Association/Oregon Association of Corrections Employees
Courtney Graham	Service Employees International Union
Karl Koenig	Oregon State Fire Fighters Council
Jared Mason-Gere	Oregon Education Association
Lori Sattenspiel	Oregon School Boards Association
Andrew Stolfi	Oregon Department of Consumer and Business Services
Scott Winkels	League of Oregon Cities
Hasina Wittenberg	Special Districts Association of Oregon

BOARD OPTIONS

1. Approve the recommended appointments, effective immediately.
2. Direct staff to solicit different or additional candidates for appointment.

Staff Recommendation:

Staff recommends the PERS Board choose Option #1

SECOND SPECIAL SESSION OF 2020

The legislature held a second special session, beginning and ending on Monday, August 10, 2020. This session was primarily focused on budget rebalancing, but did address a few bills regarding unemployment and police accountability.

The legislature passed two budget bills that pertain to PERS. HB 4304 contained the policy updates needed to complete the budget reductions passed in SB 5723. In SB 5723, the Employer Incentive Fund (EIF) was reduced by \$35,248,198, with that money going back to the general fund. Additionally, all current and future revenue streams for the EIF were eliminated. This reduces the money allocated to EIF to zero and eliminates the program until revenue streams are allocated into the EIF in the future. The School District Unfunded Liability Fund (SDULF) was reduced by \$11,539,471, with that money also going back to the general fund. All current and future revenue streams for the SDULF were also eliminated. At the time of writing, Governor Brown has published her intention to line item veto parts of the budget bills that will give both the EIF and the SDULF back their funding streams. While these funding streams currently have no income revenue, this does raise the possibility of both of these programs being funded again in the future.

Also in SB 5723, our SB 1049 implementation funding was reduced by a total of \$10,500,000. SB 1049 implementation will continue on as scheduled. Our policy option package in the 2021 agency request budget concerning SB 1049 has not changed.

In the 2020 regular legislative session, PERS had requested an Operations and Policy Analyst 3 position in actuarial services be re-classified to a principal executive manager F to accommodate hiring an actuary. PERS brought Jake Winship on to the team in hopes that this position would be re-classified in a future action following the abrupt end to the 2020 legislative session. The legislature re-classified this position in the Second Special Session of 2020.

Also in HB 4304, PERS was directed to increase the amount of data required when reporting preliminary earnings crediting to the legislature. This is information PERS has always collected, and the agency will have no issues complying with this increased reporting requirement.

SEPTEMBER LEGISLATIVE DAYS

Currently, September legislative days are scheduled to take place September 22, 2020 through September 25, 2020. While previously there was discussion of a third special session, at the time of this writing, Governor Brown's office confirmed Governor Brown is not planning on calling a third special session in September.

PERS has no concepts to bring before the legislature during legislative days. Among other items, the legislature will take up Senate confirmation of executive appointments during that time.

PRE-SESSION BILLS

The 2021 legislative session is set to begin on February 1, 2021. While PERS has filed its legislative concepts (as approved by the PERS Board) for this session, the agency is examining a couple of issues around member's changing work arrangements due to COVID-19, and may request pre-session filing around these issues. More information would be brought to the board in December if this is the case. Regarding the upcoming regular legislative session, PERS Director Kevin Olineck will be reporting to the Joint Legislative Committee on Information Management and Technology (JLCIMT) in February regarding implementation of SB 1049, as directed in SB 5723 (2020).

LEGISLATIVE CONCEPTS

Legislative concept drafts have been returned for all three legislative concepts approved by the PERS Board in March 2020. Currently, our policy team is reviewing those drafts and will suggest edits if applicable. The agency has one opportunity to suggest revisions to the bill drafts before they are filed for the 2021 legislative session.



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October 2, 2020

TO: Members of the PERS Board

FROM: MaryMichelle Sosne, Actuarial Business Specialist

SUBJECT: Employer Incentive Fund Update

BACKGROUND

The Employer Incentive Fund (EIF) provides a 25% match to employers making a lump sum payment into an new or existing side account. On August 10, 2020, during the Legislature's second Special Session, \$35.2 million was reallocated from the originally appropriated \$100 million and all current and future EIF funding sources were withdrawn, effectively ending the program. However, at the time of writing, Governor Brown, with the use of the line item veto, intends to restore the Oregon Lottery Scoreboard funding source to the EIF. While this does not currently give the EIF any additional funding, it does preserve the possibility that funds could come into the EIF in the future.

EMPLOYER INCENTIVE FUND

Through August, PERS had matched and deposited just over \$62 million into employer side accounts from the EIF. PERS has \$2,550,343.20 left to distribute to the remaining employers. This amount is less than the original total approved EIF matches remaining. As a result, PERS will allocate the remaining funds to employers based in the order their application was received. Seven employers will be offered a full EIF match and one employer will receive an offer for a partial match.¹ Nine previously approved employers have been moved to the top of the waitlist.

In the event that any of the eight approved employers rescind their application or reduce their match, the partially matched employer will be made whole first (if they have yet to make their payment) and any remaining funds will be offered to the waitlist according to OAR 459-009-0092.² With the addition of these employers, the waitlist now has 48 employers. This waitlist represents a potential of \$135 million in new employer payments, with associated EIF matches that would add nearly \$47 million to those employer payments, should the EIF fund return or be continued.

PERS will submit final details for the Employer Incentive Fund in the December 4, 2020 PERS Board meeting.

¹ This process is consistent with SB1049 Section 47 (4) (a) and (b), OAR, 459-009-0092(9). Additionally employers had been notified in advance that this would be our process should EIF funding be reduced.

² These 17 employers were originally anticipated to make lump sum payments totaling \$118,052,536.20 and receive a total EIF match of \$29,513,133.80.



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October 2, 2020

TO: Members of the PERS Board
FROM: Jordan Masanga, Chief Information Officer
SUBJECT: SB 1049 Implementation Update

Senate Bill 1049 was signed into law by the Governor on June 11, 2019. PERS staff continue to focus on completing work in an efficient and effective manner.

PROGRAM/PROJECT IMPLEMENTATION

The SB 1049 Implementation Program is being managed as one comprehensive program, with the following five individual projects. All projects are going through the Enterprise Information Services (EIS) stage gate process.

Project	Effective Date	Project Health and Status
SB 1049 Program		Program health: Red <ul style="list-style-type: none"> • Due to lack of an approved 21-23 budget, the program status will remain Red until the Governor's Recommended Budget is submitted to the legislature. • Focused effort on project schedule standardization and effort estimation validation with Deloitte.
Employer Programs Project	Effective 7/1/2019	Project health: Red <ul style="list-style-type: none"> • Project schedule is in the process of rebaselining, with a projected closure date of 7/31/21. • Legislative Special Session removed current funds and future funding streams for the Employer Incentive Fund. • Employer Rate Projection Tool contract for development resources completed.
Salary Limit Project	Effective 1/1/2020	Project health: Green <ul style="list-style-type: none"> • Work Package (WP) 3 on track for the 10/22/20 deployment. • Business Functional Testing (BFT) completed without any bugs; User Acceptance Testing (UAT) began on 9/16/20.
Work After Retirement Project	Effective 1/1/2020	Project health: Green <ul style="list-style-type: none"> • WP2 on track for the 10/22/20 deployment. • BFT completed without any issues or unfixed bugs; UAT began on 9/16/20.

Member Redirect Project	Effective 7/1/2020	Project health: Green <ul style="list-style-type: none"> • Voluntary Contributions Release 1 deployed on 9/22/20. • BFT for Release 2 began on 9/8/20 and is expected to be completed on 10/2/20. • Change Request for IAP Data Locking in development.
Member Choice Project	Effective 1/1/2021	Project health: Green <ul style="list-style-type: none"> • WP1 deployed successfully on 8/20/20. • Member choice election window opened from 9/1-9/30/20. Received over 450 elections in first two weeks of the election period. • Received Stage Gate 3 endorsement.

Highlighted activities completed or in progress since July 2020:

- Program and project activities
 - iQMS activities
 - Finalized the Periodic Quality Status Report on 8/24/20
 - Quarterly QA Status and Improvement Report in progress
 - Deloitte activities:
 - Phase 2 had sixteen deliverables
 - Post-release assessment for Member Choice received 9/14/20
 - Test Execution Planning and Dashboard continue to be supported and utilized
 - Organizational Change Management (OCM) structure developed
 - Resource based project validation in process
 - Will continue support through November 2020 in program, testing and OCM activities
 - Monthly project team meeting held September 14, 2020
- Resources
 - Staff recruitments; 43 total positions
 - Webmaster position in recruitment
 - 34 positions filled
 - Active Recruitments – 8
 - Hold - 1
- EIS Stage Gate process requirements
 - Member Redirect project received conditional Stage Gate 3 approval
 - Member Choice project received State Gate 3 approval
- Budget structure and reporting
 - Continuing monthly meetings with the Chief Financial Office (CFO), Legislative Fiscal Office (LFO), and the Governor’s office
 - LFO concerns about Member Redirect efforts projected into the next biennium
 - Impacts to the budget:
 - Employer Programs Rate Projection tool work order (approximately \$1.275 million)

- Change Request for Member Redirect IAP Data Lock (TBD)
- Communications
 - Internal communication activities have focused on:
 - Keeping staff informed of the project progress and various releases
 - Ensuring Member Services staff have talking points for calls and correspondence
 - External Communications activities include:
 - Employer Programs
 - Updating website with EIF changes
 - Preparing communications to impacted employers about the EIF funding changes
 - Drafted a UALRP Communications Plan
 - Member Choice
 - Refreshed our “What is the IAP” webpage and other website updates, including to PERS homepage, member homepage, minor changes to IAP Target-Date Funds page
 - GovDelivery email on 8/18/20 to 21,300+ contacts
 - September 1 GovDelivery email to same list plus key employer contacts
 - Worked with PERS Coalition partners; they shared and discussed with their constituents
 - Monthly Employer Newsletters
 - Next Employer Advisory Group meeting will be held October 16, 2020
 - Rulemaking for Member Redirect and WAR projects
- Organizational Change Management
 - Deloitte resources set-up foundational change management activities
 - Four work streams in process: Communications, Leadership, Change Impact and Readiness, and Training
 - Goal is to enable PERS staff to support on-going efforts

PROGRAM/PROJECT BUDGET

The budget information is contained within Page 2 of the attachment to agenda item A.2.c. PERS staff will continue to update the board as project implementation continues throughout the year.

C.1. Attachment 1 – *Monthly Project Status Report and Roadmap*

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Program information:

Program start: July 1, 2019 | **Program end:** April 30, 2024

Subprojects:

Project 1: Employer Programs

- Project start: July 1, 2019 | Project end September 4, 2020
 - Rebaseline planning in process
- Project status: **Red**

Project 2: Work After Retirement (WAR)

- Project start: July 1, 2019 | Project end: June 11, 2021
- Project status: **Green**

Project 3: Salary Limit

- Project start: July 1, 2019 | Project end: April 15, 2021
- Project status: **Green**

Program statement:

SB 1049 is comprehensive legislation intended to address the increasing cost of funding Oregon's Public Employees Retirement System (PERS), reduce system Unfunded Actuarial Liability (UAL) obligations, and provide relief to escalating contribution rate increases for public employers. Implementation will occur across five subprojects.

Project 4: Member Redirect

- Project start: July 1, 2019 | Project end: April 24, 2024
- Project status: **Green**

Project 5: Member Choice

- Project start: October 23, 2019 | Project end: August 4, 2021
- Project status: **Green**

For details regarding individual project status, please refer to the respective project section(s) below.

Overall program status: **Red**

The program status continues to be red. Member Redirect and Member Choice will not be complete in the 2019-2021 biennium, and funding is not yet approved beyond this biennium.

All project teams except Employer Programs continue to execute according to baselined schedules. Recent production deployments by Member Redirect and Member Choice were completed on-time, and upcoming production deployments for Member Redirect, WAR, and Salary Limit remain on-schedule. Development quality appears to be good, with few defects being identified after production releases and few critical and high defects being identified during User Acceptance Testing cycles.

Employer Programs, severely impacted by COVID-19, is in the final stage of review for schedule rebaseline, expected to be complete by 9/21/2020.

Deloitte continues to be engaged, focusing efforts on validating schedule estimates and resources and on planning Organizational Change Management (OCM) activities.

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Budget health: **Red**

Budget health is red: Activities planned beyond 2019-21 biennium, but 2021-2023 budget has not been approved.

29560- SB 1049 Implementation Program by POP							
Other Funds Lmt	19-21 Budget	Actual to Date	Projections	19-21 Total	Variance	21-23 Policy Package	Program Cost
802- Project Management & Admin	\$ 2,500,000	\$ 1,033,100	\$ 1,174,200	\$ 2,207,300	\$ 292,700	\$ 2,044,800	\$ 4,252,100
803- Quality Assurance and Testing	\$ 2,500,000	\$ 786,050	\$ 1,589,066	\$ 2,375,116	\$ 124,884	\$ 812,500	\$ 3,187,616
804- Info Technology Applications	\$ 15,992,000	\$ 7,256,610	\$ 8,735,390	\$ 15,992,000	\$ 0	\$ 13,000,000	\$ 28,992,000
805- Operational Implementation	\$ 7,567,714	\$ 2,499,901	\$ 1,750,996	\$ 4,250,897	\$ 3,316,817	\$ 6,397,673	\$ 10,648,570
806- Contingency Reserve	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$ 28,559,714	\$ 11,575,662	\$ 13,249,652	\$ 24,825,314	\$ 3,734,401	\$ 22,254,973	\$ 47,080,287

AFN
\$ 18,520,573

Schedule health: **Red**

Member Redirect and Member Choice have activities scheduled beyond the 2019-21 biennium which has not been budgeted yet. Employer Programs is delayed due to COVID-19 impacts. Change request to rebaseline the schedule approved and schedule updates are in process.

Scope health: **Green**

The program and project scope is understood and has been incorporated into program-level plans and schedules.

Quality Assurance activities:

- iQMS Deliverable 3.3.2 Periodic Quality Status Report started on 6/30/2020, completed 8/31/2020.
- iQMS Deliverable 3.3.3 Periodic Quality Status Report to begin on 9/30/2020, due 12/11/2020.
- iQMS Deliverable 4.1.3 Quarterly QA Status and Improvement Report started on 9/9/2020, due 11/3/2020.

Emerging concerns/needs/impacts:

- Member Redirect and Member Choice have activities scheduled beyond the 2019-21 biennium which has not been budgeted yet.
- Resource constraints - resources working on multiple SB 1049 projects is constraining availability for individual projects.

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Program Risks and Mitigation

Listed below are the most critical risks for this project.

For the complete Risk Log, please see the Risk Log tab in the most recent weekly status report: [SB 1049 Program Weekly Status Report](#)

#	Risk Description	Mitigation and/or Contingency Plan	Notes
38	Schedule impact due to competing resources: Critical resources are involved in multiple concurrent SB 1049 projects, limiting availability for individual projects	➤ Coordinated schedule planning and priorities within the Program and all projects; reassign other staff to help cover absences or help offset extreme workload periods.	Contracted with Deloitte to estimate remaining work and resource assignments to develop an effort-based resource-loaded plan to validate resource assignments and proactively prevent over-allocation of resources. Validation of schedules is in process.

Program Issues and Action Plans

Listed below are the most critical issues for this project.

For the complete Issue Log, please see the Issue Log tab in the most recent weekly status report: [SB 1049 Program Weekly Status Report](#)

No	Issue	Resolution / Notes	Estimated Resolution Date
9	Realized Risk #9: Project Budget Not Sufficient: The approved project budget is not sufficient to cover all required expenses.	➤ Work is needed beyond the 2019-2021 biennium to complete long-term Member Redirect and Member Choice activities, but budget has not been approved for the 2021-2023 biennium. PERS has submitted a budget business case for the required funding. Deloitte engaged to validate budget estimates for remaining work.	3/1/2021
10	Realized Risk # 10: Training is inadequate or not timely: The training needed to use the system or solution is not well understood.	➤ Deloitte deliverables D2.3.8 and D2.3.9 will put a plan and strategy in place for training creation and execution.	9/30/2020

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Program Schedule



Senate Bill (SB) 1049 Implementation Road Map

2019-2021 Biennium

	2019						2020												2021					
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
Employer Programs	<ul style="list-style-type: none"> 7/1/19 – Effective Date 9/3/19 – Employer Incentive Fund (EIF) Application #1 Opens 11/27/19 – EIF Application #1 Closes 12/2/19 – EIF Application #2 Opens 						<ul style="list-style-type: none"> 8/6/20 – Employer Rate Projection Tool (ERPT) Assessment Complete 12/1/20 – EIF Application #2 Closes 5/19/2021 – Work Package (WP) 1 (ERPT Conversion) – Tentative → 6/10/2021 – WP2 (Unfunded Actuarial Liability Resolution Program (UALRP) Launch) – Tentative → 																	
Salary Limit							<ul style="list-style-type: none"> 12/24/19 – Work Package (WP) 1 Short Term 1/1/20 – Effective Date 1/24/20 – WP2 (Post 2020 Salary Limit) Long Term 10/22/20 – WP3 (User Screens to record annual salary limit) Long Term 4/1/21 – WP4 (Proration reports and workflow) Long Term 4/15/21 – Project Close 																	
Work After Retirement							<ul style="list-style-type: none"> 12/19/19 – Work Package (WP) 1 (Retiree Wages Suspended) Short Term 1/1/20 – Effective Date 10/22/20 – WP2 (New Wage Codes with General Ledger (GL) Integration) Long Term 4/22/21 – WP3 (OPSRP Return to Work Defect & Retro Rate Changes) Long Term → 6/11/21 – Project Close → 																	
Member Redirect							<ul style="list-style-type: none"> 6/18/20 – Work Package (WP) 1 Release (Employee Pension Stability Account Set Up/Batch/ General Ledger) – Short Term → 7/1/20 – Effective Date → 1/26/2021 – WP2 (Voluntary Contribution Off-Line Tools) Long Term → 9/22/20 – Voluntary Contributions Initial Functionality – Long Term 11/19/20 – Voluntary Contributions Final Functionality Release – Long Term 3/23/2021 – WP3 (EPSA Earnings) Long Term 6/24/2021 – WP4 (EPSA Maintenance) Long Term → 																	
Member Choice							<ul style="list-style-type: none"> 10/23/19 – Project Kick Off 5/15/20 – Member Annual Statements (MAS) Flyer Communication → 8/19/20 – Member Choice Notification → 8/20/20 – Work Package (WP) 1 Online Member Services (OMS) Changes Deployed 9/1-30/20 – Election Period 3/4/21 – WP2 OMS & jClarety Enhancements (Long Term) → 1/1/21 – Effective Date 5/1/21 – Member Choice reflected in MAS → 6/30/21 – WP3 Earnings Rates and Validation Updates (Long Term) → 																	

Revised: September 17, 2020

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

2021-2023 Biennium

PROJECTS	2021						2022												2023					
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
 Employer Programs	• 7/13/2021 – Project Close – Tentative																							
 Salary Limit																								
 Work After Retirement																								
 Member Redirect							• 10/29/2021 – WP5 (Voluntary Contribution Maintenance) Long Term						• 11/17/2022 – WP9 (Withdrawals) Long Term						• 3/31/2023 – WP10 (Post-Retirement Death) Long Term					
							• 1/27/2022 – WP6 (EPSA Retirement) Long Term						• 4/28/2022 – WP7 (EPSA Divorce) Long Term						• 7/28/2022 – WP8 (Pre-Retirement Death) Long Term					
 Member Choice	• 8/4/21 – Project Close																							

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

2023-2025 Biennium

PROJECTS	2023						2024												2025							
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN		
 Employer Programs																										
 Salary Limit																										
 Work After Retirement																										
 Member Redirect																										<ul style="list-style-type: none"> 8/24/2023 – WP11 (Maintaining Benefits) Long Term 12/21/2023 – WP12 (Full EPSA Set up Screen) Long Term 3/29/2024 – Migration Finalization 4/24/24 – Project Close
 Member Choice																										

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Project information: Employer Programs

Project start: July 1, 2019 | **Project end:** September 4, 2020

Project Manager: Joli Whitney

Note: Rebaseline planning in process. Project end date will change once rebaseline planning is complete (planned by 9/15/2020).

Overall project status: **Red**

Project Narrative: Project schedule rebaseline activities are in process. The schedule is in final quality check point (QCP) scheduled for completion on September 21. Work Order Contract (WOC) to obtain the necessary resources to assist with this tool implementation is under final review at the Department of Justice. The new staff are anticipated to begin work on October 1. The projected IT Professional services budget needed to obtain these contracted resources leaves a total project budget variance of just under 8%.

The August 10 Legislative Special Session removed substantial current funds and redirected future funding sources from the Employer Incentive Fund (EIF) in Senate Bill 5723. Once the bill has been signed by the Governor the team will deploy notification to impacted employers of the status of their previously approved applications. 16 employers will be impacted by this action. Of these, eight more employers will be added to the waitlist. The current status of the EIF is below.

Employer Incentive Fund (EIF) Status

- Opened 9/3/2019
- 152 total applications were approved through 8/1/2020
- \$ 57,778,890 distributed to employers as of 8/1/2020
- Application period closes 12/1/2020
- 40 employers are currently on the waitlist

Project objective:

The Employer Programs section of SB 1049 expands the requirements for the Employer Incentive Fund (EIF); and appropriates \$100 million from the General Fund to the Employer Incentive Fund; directs net proceeds from Oregon Lottery Sports betting to the Employer Incentive Fund; allows participating public employers who make larger than \$10 million deposits to side accounts to determine when they wish to have these funds included in their employer rate assessment; and requires all public employers to participate in the Unfunded Actuarial Liability Resolution Program (UALRP).

Employer Rate Projection Tool Work Packages

WP1

- Convert tool to use PERS standard platform
 - Move from Oracle to SQL

WP2

- Enhance external facing requirements
- Cloud hosting

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Budget health: Green

Employer Programs is currently within the budget allocated by the Legislature. Projected budget for IT Professional expenses has increased to reflect the work order contract for the required technical resources to implement the employer rate projection tool.

29560 SB1049 - Employer Programs Project					
Expenses	Budget	Actual to Date	Projections	Total	Variance
*Personal Services - PERS	\$ 463,000	\$ 443,561	\$ 20,000	\$ 463,561	\$ (561)
General Overhead Allocation	\$ 220,138	\$ 130,454	\$ 88,000	\$ 218,454	\$ 1,684
Personal Services - SB1049	\$ 165,402	\$ 85,850	\$ 79,500	\$ 165,350	\$ 52
Office Expenses	\$ 5,000	\$ 77	\$ 4,000	\$ 4,077	\$ 923
IT Professional Services	\$ 1,456,083	\$ 17,256	\$ 1,418,536	\$ 1,435,792	\$ 20,291
Professional Services	\$ 170,752	\$ -	\$ -	\$ -	\$ 170,752
IT Expendable Prop	\$ 10,000	\$ 5,883	\$ 4,000	\$ 9,883	\$ 117
SB1049 Expenses	\$ 2,027,375	\$ 239,520	\$ 1,594,036	\$ 1,833,556	\$ 193,819
Project Total	\$ 2,490,375	\$ 683,081	\$ 1,614,036	\$ 2,297,117	\$ 193,258
Average Monthly Spend (Burn Rate)		\$ 18,424.61	\$ 1,594,036		
*Not included in SB1049 Expenses					

Schedule health: Red

The schedule is in the final stages of rebaseline. We anticipate this category to return to green status once the QCP is approved and the schedule is rebaselined on Sept 21.

Scope health: Yellow

The initial scope of requirements for deploying the ERPT into PERS environment has completed elaboration. Elaboration of the second and final work package is in process. We anticipate a return to green in this category in the coming weeks as elaboration continues and the complete scope is better understood.

Quality Assurance activities:

- QCP of Project schedule will be complete on Sept 21.

Emerging concerns/needs/impacts:

- None at this time

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

High Level Project Risks and Mitigation

Listed below are the most critical risks for this project.

For the complete Risk Log, please see the Risk Log tab in the most recent weekly status report: [Employer Programs Weekly Status Report](#)

#	Risk Description	Mitigation and/or Contingency Plan	Notes
1	Internal Staffing- Resource shifting, competing priorities, or over allocation impact the availability of dedicated project resources, or a key resource leaves PERS or is out for an extended period, and/or staff experience levels are inadequate.	➤ Business Owner or Program Business Owner may reassign other staff to help cover the absence or affected staff may work overtime if needed.	The Actuarial Services Team is very small and specialized. There will be times their participation will be critical to this project when they may have other duties which are also critical. The project schedule will need careful coordination with the Associate Actuary to ensure all needs can be met.

Project Issues and Action Plans

Listed below are the most critical issues for this project.

For the complete Issue Log, please see the Issue Log tab in the most recent weekly status report: [Employer Programs Weekly Status Report](#)

No	Issue	Resolution / Notes	Estimated Resolution Date
5	Schedule Delay or Rebaseline Planning- The project schedule does not have capacity for all scope needed and is delayed or requires a rebaseline.	➤ 9/20 Update- The schedule rebaseline is in the final stages of approval. Once the QCP has been accepted, this issue will be resolved.	9/21/2020
7	EIF Funding Uncertainty- unclear funding schedule and shifting legislative priorities, leave employers unwilling or unable to participate in EIF and UALRP	➤ The 8/10 Special Legislative Session passed Senate Bill 5723 which removed over \$35m in remaining funds from the EIF. The risk was realized and is now an issue. We will consider this issue resolved once the Governor signs SB 5723 and we officially communicate that the EIF has been depleted.	9/30/2020
8	COVID 19- Economic Impacts - Employers withdraw from or do not participate in the EIF due to financial strain of pandemic in providing basic government services	➤ The 8/10 Special Legislative Session passed Senate Bill 5723 which removed over \$35m in remaining funds from the EIF. The risk was realized and is now an issue. We will consider this issue resolved once the Governor signs SB 5723 and we officially communicate that the EIF has been depleted.	9/30/2020

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Project Schedule Deliverables and Milestones

Milestones Schedule				
Milestone	Percent Complete	Baseline Finish Date	Actual / Forecast Finish Date*	Status/ Notes
Evaluate Employer Rate Projection Tool (ERPT)	100%	5/6/2020	8/6/2020	The tool analysis is complete and has informed the rebaseline schedule.
Rebaseline Project Schedule	0%	n/a	9/21/2020	This activity is on track to complete on time
Receive EIS Endorsement Memo	0%	1/31/2020	10/5/2020	This has been updated to occur after the schedule has been rebaselined.
EIF Application Closes (Window #2)	0%	9/3/2020	12/1/2020	The PERS Board adopted a temporary OAR change on 5/29/2020 to extend the EIF application closure to 12/1/2020. This milestone date will be updated in the schedule rebaseline.
WP1 Development Complete	0%	n/a	3/23/2021	
WP1 Business Functional Testing Complete	0%	n/a	4/12/2021	
WP1 User Acceptance Testing Complete	0%	n/a	5/14/2021	
WP1 Deployment Complete	0%	n/a	5/19/2021	
WP2 Development Complete	0%	n/a	4/1/2021	
WP2 Business Functional Testing Complete	0%	n/a	4/21/2021	
WP2 User Acceptance Testing Complete	0%	n/a	5/28/2021	
WP2 Deployment Complete (ERPT Complete)	0%	n/a	6/10/2021	

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Milestones Schedule				
Milestone	Percent Complete	Baseline Finish Date	Actual / Forecast Finish Date*	Status/ Notes
Launch UALRP	0%	8/31/2020	6/10/2021	This is a new forecast finish date from rebaseline planning. This is subject to change until the rebaseline is approved.
Project End	0%	9/4/2020	7/13/2021	This is the new project end date with all closure activities following rebaseline

*Finish Date Color: Green = on Schedule, Yellow = in Jeopardy, Red = Late

Project information: Work After Retirement (WAR)

Project start: July 1, 2019 | **Project end:** June 11, 2021
Project Manager: Susan K. Mundell

Overall project status: **Green**

Project Narrative: Business Functional Testing (BFT) for Work Package 2: New Wage Codes with General Ledger (G/L) Integration began as planned on 8/17/2020 with a couple of known development activities still outstanding. BFT has progressed but remained behind and was not able to complete on the 9/4/2020 deadline as planned. A decision was made to continue BFT until completion including, if necessary, concurrently with UAT. The technical team have really worked hard and have completed BFT two days later on 9/8/2020 with all test scripts passed and no outstanding issues.

The Product Owner team has developed the UAT test scripts and entered them into the PERS test tracking software. UAT began on time on 9/16/2020 and is scheduled to continue until 10/13/2020.

The non-technical team is ready for the 10/22/2020 deployment. Procedures and Processes have been developed and trained against. Communications to employers have been developed and published.

Work Packages:

Work Package 1: Suspend DTL2-07 Retiree Wage Codes – Short-term

- Production Deployment Date: 12/19/2019 (Complete)

Work Package 2: New Wage Codes with G/L Integration – Long-term

- Production Deployment Date: 10/22/2020
- Business Functional Testing completed on 9/8/2020
- User Acceptance Testing began on 9/16/2020
- User Acceptance Testing is scheduled for completion on 10/13/2020.

Project objective:

Effective January 1, 2020, the Work After Retirement (WAR) sections of SB 1049 allow most service retirees to work unlimited hours for PERS participating employers in calendar years 2020-2024 while retaining their retirement benefit. It also requires employers to pay employer contributions on retirees' salary during that period.

Work Package 3: OPSRP Return to Work Issue and Retro Rate Change – Long-term

- Production Deployment Date: 4/22/2021
- Oregon Public Service Retirement Plan (OPSRP) Return to Work Technical Debt Defect: DTL2-07 posting adds an active status to a retiree segment that has to be manually removed.
- Retro Rate Change: Modification of SD610 Batch Job requires significant testing
- Development is scheduled to begin 10/28/2020

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Budget health: Green

The WAR Project is currently within the budget allocated by the Legislature.

29560 SB1049 - Work After Retirement (WAR) Project					
Expenses	Budget	Actual to Date	Projections	Total	Variance
*Personal Services - PERS	\$ 1,214,174	\$ 693,998	\$ 500,000	\$ 1,193,998	\$ 20,176
General Overhead Allocation	\$ 440,275	\$ 260,908	\$ 159,000	\$ 419,908	\$ 20,367
Personal Services - SB1049	\$ 236,253	\$ 172,527	\$ 63,500	\$ 236,027	\$ 226
Office Expenses	\$ 2,194	\$ 97	\$ 500	\$ 597	\$ 1,597
Professional Services	\$ 140,000	\$ -	\$ 140,000	\$ 140,000	\$ -
IT Professional Services	\$ 931,392	\$ 392,558	\$ 489,173	\$ 881,731	\$ 49,661
IT Expendable Property	\$ 10,000	\$ 5,536	\$ 3,000	\$ 8,536	\$ 1,464
SB 1049 Total Expenses	\$ 1,760,114	\$ 831,626	\$ 855,173	\$ 1,686,799	\$ 73,315
Project Total	\$ 2,974,288	\$ 1,525,624	\$ 1,355,173	\$ 2,880,797	\$ 93,491
Average Monthly Spend (Burn Rate)		\$ 63,971.22	\$ 77,743.00		
*Not included in SB1049 expenses					

Schedule Health: Green

BFT is complete with no issues or unfinished bugs. UAT has begun and is reporting a clean test so far. The project is marching toward the 10/22/20 deployment date.

Scope health: Green

The scope for the remaining Work Packages has been defined and is understood.

Quality Assurance activities:

- The Quality Check Point (QCP) review was completed since our last report for two contractual deliverables: D1.0.12 Contractor Support Log and D3.1.1 Draft Work Package Development.
- A ready for User Acceptance Testing Quality Gate was completed on 9/15/20.
- A ready for Release to Production Quality Gate is planned for 10/21/20.

Emerging concerns/needs/impacts:

- WAR's top concern, at this point, is the over allocation of testing resources. Subject Matter Experts (SME) and Associate Product Owners (APO) are often moving their focus from one project testing cycle to another project testing cycle. This can lead to confusion and mental exhaustion for many of the program staff.

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

High Level Project Risks and Mitigation

Listed below are the most critical risks for this project.

For the complete Risk Log, please see the Risk Log tab in the most recent weekly status report: [WAR Weekly Status Report](#)

Risk Description	Mitigation and/or Contingency Plan	Notes
<p>APO & SME User Acceptance Testing Capacity: The resources, time, and/or tools are not adequate to support user acceptance testing. Over allocation of testers between projects are hindering testing efforts.</p>	<ul style="list-style-type: none"> ➤ Adding additional resources ➤ Extending the scheduled deployment ➤ Reduce the scope of testing and rely on BFT ➤ Adding overtime ➤ Communicate and monitor testing activities on the schedule. 	<p>9/11/20: SMEs and APOs are moving quickly from one project test cycle to another project test cycle. This can lead to confusion and mental exhaustion. Additionally, APOs are tasked with testing M&E functionality in addition to the program UATs.</p>
<p>Competing SB 1049 Resources: Critical resources are involved in multiple concurrent SB 1049 projects, limiting availability for individual projects. This cross program over allocation can negatively affect the quality of the work being performed.</p>	<ul style="list-style-type: none"> ➤ Careful coordinated schedule planning and priorities within the Program and all projects. ➤ Affected staff are setting priorities and working overtime if needed. ➤ Additional staff may be assigned 	<p>9/11/20: POs, APOs and PM have concerns about allocated UAT prep time not being sufficient to the task. Additional assistance is being provided to the APO who is doing the work.</p>
<p>Project Scope: Change Requests (CR) adding additional scope to project resulting in requiring additional effort from resources, changes to the baselined schedule and/or additional required funding.</p>	<ul style="list-style-type: none"> ➤ Closely follow the documented CR process to ensure any additional scope is necessary for the success of the project. 	<p>9/11/20: Current CR WAR-03 Side Accounts is under consideration. If this CR is added to the scope of WAR, the WAR schedule may extend beyond the end of the 2019-2021 biennium.</p>

Project Issues and Action Plans

Listed below are the most critical issues for this project.

For the complete Issue Log, please see the Issue Log tab in the most recent weekly status report: [WAR Weekly Status Report](#)

Risk Description	Mitigation and/or Contingency Plan	Notes
No Current Issues		

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Project Schedule Deliverables and Milestones

Milestones Schedule				
Milestone	Percent Complete	Baseline Finish Date	Actual / Forecast Finish Date*	Status/ Notes
WP1 - Phase Closure Complete	100%	2/13/2020	2/13/2020	
Baselined Project Schedule	100%	2/25/2020	2/25/2020	
WP2 - Requirements Complete	100%	3/2/2020	3/2/2020	
WP2 - Development Complete	0%	8/14/2020	8/21/2020	Delayed Development cycle did not affect
WP2 - Business Functional Testing (BFT) Complete	0%	9/15/2020	9/8/2020	critical path. UAT still started on time.
WP2 - Ready for User Acceptance Testing (UAT) Quality Gate	0%	09/15/202	09/16/2020	
WP2 - User Acceptance Testing (UAT) Complete	0%	10/13/202	10/13/2020	
WP2 - Quality Assurance Testing Complete	0%	10/21/202	10/21/2020	
WP2 - Move to Production Quality Gate Complete	0%	10/21/202	10/21/2020	
WP2 - Deployment Complete	0%	10/22/202	10/22/2020	
WP3 - Requirements Complete	0%	10/27/202	10/27/2020	
WP3 - Development Complete	0%	2/3/2021	1/27/2021	
WP3 - Business Functional Testing (BFT) Complete	0%	3/11/2021	2/26/2021	
WP3 - Ready for User Acceptance Testing (UAT) Quality Gate	0%	4/1/2021	3/19/2021	
WP3 - User Acceptance Testing Complete	0%	4/1/2021	3/29/2021	
WP3 - Quality Assurance Testing Complete	0%	4/1/2021	4/7/2021	
WP3 - Move to Production Quality Gate Complete	0%	4/16/2021	4/7/2021	
WP3 - Deployment Complete	0%	4/22/2021	4/22/2021	
WP3 - Phase Closure Complete	0%	6/4/2021	4/29/2021	
WAR Project Complete	0%	8/6/2021	6/11/2021	

*Finish Date Color: Green = on Schedule, Yellow = in Jeopardy, Red = Late

Project information: Salary Limit

Project start: 7/01/ 2019 | Project end: 4/15/2021

Project Manager: Bruce Rosenblatt

Project objective:

The Salary Limit Project is necessary because SB 1049 redefined “salary,” which changes the calculation method for Final Average Salary, and contributions for members with subject salary greater than \$195,000. This limit is on salary for plan purposes, and is not a salary cap. The Salary Limit will be indexed annually to the Consumer Price Index, beginning on or after 1/01/2021. The redefinition impacts the data and business processes used by diverse teams at PERS, including Benefit Calculations, Member Estimates, Data Verifications, Employer Data Reporting, and Account Data Reviews and Reporting.

Overall project status: **Green**

Project Narrative: The 2020 Salary Limit Project is comprised of four Work Packages. Work Package 1 (WP1) delivered a short-term solution in 2019, delivering new reports so PERS can manually report on impacted members and their employers for Tier 1/Tier 2, and Oregon Public Service Retirement Plan (OPSRP). Work Package 2 (WP2) implemented a Data Change Request (DCR) on 1/23/2020 to post the 2020 limit. Work Package 3 (WP3) provides entry screens and approval roles to record annual salary limit changes and effective dates for all plans. Work Package 4 addresses the proration processes for full and partial year activities. Work Package 4 (WP4) uses the new Wages Codes that will be introduced by the Work After Retirement (WAR) project.

Work Packages:

Work Package 3: User screens to record annual salary limit, adding Tier1 to messages for Salary Limit, similar to Tier2 and Oregon Public Service Retirement Plan (OPSRP) – Long-term

- Production Deployment Date: 10/22/2020
- Completed Business Functional Testing (BFT) on schedule 9/4/2020
- Began User Acceptance Testing (UAT) on schedule 9/16/2020, on target to complete by 10/13/2020

Work Package 4 - Addresses Proration work processes - Long-term

- Production Deployment Date: 4/01/2021
- Started WP4 technical elaboration the week of 9/14/2020
- Development to be completed by 1/19/2021

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Budget Health: **Green**

Salary Limit Project budget projections are currently lower than the budget allocated by the Legislature.

29560 SB1049 - Salary Limit					
Expenses	Budget	Actual to Date	Projections	Total	Variance
*Personal Services - PERS	\$ 970,000	\$ 589,809	\$ 375,000	\$ 964,809	\$ 5,191
General Overhead Allocation	\$ 220,138	\$ 130,454	\$ 88,000	\$ 218,454	\$ 1,684
Personal Services - SB1049	\$ 130,947	\$ 85,850	\$ 43,500	\$ 129,350	\$ 1,597
Services and Supplies	\$ 1,088	\$ 240	\$ 500	\$ 740	\$ 348
IT Professional Services	\$ 860,000	\$ 127,656	\$ 648,291	\$ 775,947	\$ 84,053
IT Expendable Prop	\$ 10,000	\$ 5,535	\$ 4,000	\$ 9,535	\$ 465
SB1049 Total Expenses	\$ 1,222,173	\$ 349,735	\$ 784,291	\$ 1,134,026	\$ 88,147
Project Total	\$ 2,192,173	\$ 939,544	\$ 1,159,291	\$ 2,098,835	\$ 93,338
Average Monthly Spend (Burn Rate)		\$ 26,903	\$ 87,143.44		
*Not included in SB1049 Expenses					

Schedule health: **Green**

Completed WP3 Business Functional Testing (BFT) 2 days early on 9/02/2020

Coordinated transition from WP3 BFT to Quality Assurance (QA) for User Acceptance Testing (UAT) due 10/13/2020

Resumed WP4 technical elaboration and other critical path activities are now on schedule.

Deloitte Consultants inspected project plans, to validate our resources assignments, in order to identify any over-allocations of resources that could possibly impact project timelines. WP3 is on track for production deployment on 10/22/2020

Scope health: **Green**

Scope, including detailed requirements contained in Business Requirements Documents (BRD), has been defined for all work packages

Quality Assurance activities:

- The Release to Production Quality Gate is being planned for WP3 in mid-October
- Next Quality Check Point (QCP) for Work Package 4 is the Final Functional Design Specification document, due 11/05/2020

Emerging concerns/needs/impacts:

- No emerging concerns

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

High Level Project Risks and Mitigation

Listed below are the most critical risks for this project.

For the complete Risk Log, please see the Risk Log tab in the most recent weekly status report: [Salary Limit Weekly Status Report](#)

#	Risk Description	Mitigation and/or Contingency Plan	Notes
71	Possible resource constraint for developer tasks when transitioning from Work Package 3 (WP3) to Work Package 4 (WP4)	Release Manager, Product Owner, and Business Sponsor adjusted project activities to accommodate the resource constraint without affecting the project's critical path.	Technical elaboration for WP4 can follow completion of Business Function Testing (BFT) for WP3, on 9/04/2020. Therefore Construction can begin on WP4 on 10/20/2020
77	Salary Limit WP3 deploys to production without WAR WP2	Mitigate by planning the tasks, and time required, to decouple the code, which is currently combined. Allow time to repeat Salary Limit UAT independently from WAR; UAT will identify references to the new Wage Codes, developed specifically for this new version of WAR; Contingency plan could defer Salary Limit release, since the changes are primarily required for January 2021.	Downgraded this risk. Both Salary Limit and WAR were able to complete BFT in sufficient time to start UAT on-time on 9/16/2020 and are on target for the planned production implementation date of 10/22/2020.

Project Issues and Action Plans

Listed below are the most critical issues for this project.

For the complete Issue Log, please see the Issue Log tab in the most recent weekly status report: [Salary Limit Weekly Status Report](#)

No	Issue	Resolution / Notes	Estimated Resolution Date
	No current issues		

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Project Schedule Deliverables and Milestones

Milestones Schedule				
Milestone	Percent Complete	Baseline Finish Date	Actual / Forecast Finish Date*	Status/ Notes
WP2 - Post New Salary Limit - Release to Production	100%	1/23/2020	1/23/2020	
WP3 - Requirements Complete	100%	3/13/2020	3/13/2020	
Change Request Approval (SL_01)	100%	5/15/2020	5/15/2020	
Baseline the project schedule	100%	6/17/2020	6/17/2020	
WP4 - Requirements Complete	100%	7/14/2020	7/14/2020	
WP3 - Development Complete	100%	8/14/2020	8/14/2020	
WP3 - Business Function Testing (BFT) Complete	0%	9/04/2020	9/02/2020	
WP3 - User Acceptance Testing (UAT) Complete	0%	9/04/2020	10/13/2020	
WP3 - Deployment Complete	0%	10/22/2020	10/22/2020	
WP4 - Signoff User Stories & Acceptance Criteria Complete	0%	8/18/2020	11/17/2020	Adjusted schedule to mitigate Risk #71 (above); Not expected to impact critical path
WP4 - Development Complete	0%	1/19/2021	1/19/2021	
WP4 - Business Function Testing (BFT) Complete	0%	2/09/2021	2/09/2021	
WP4 - User Acceptance Testing (UAT) Complete	0%	3/23/2021	3/23/2021	
WP4 - Deployment Complete	0%	4/01/2021	4/01/2021	
Project Complete	0%	4/15/2021	4/15/2021	

*Finish Date Color: Green = on Schedule, Yellow = in Jeopardy, Red = Late

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Project information: Member Redirect

Project start: July 1, 2019 | Project end: April 24, 2024
Project Manager: Chris Yu

Overall project status: **Green**

Project Narrative: The User Acceptance Testing was completed on 9/14/2020. The current priority is to deploy the work package VC1: Voluntary Contributions Initial Functionality on 9/22/2020 into production, and continue the tasks for the Final Functionality of Voluntary Contributions, which will deploy on 11/19/2020. As a result, and due to the team continuing to perform as-planned, the project health status continues to be green. The Project Manager and Deloitte resources have updated the project schedule to reflect an effort based duration for each task and will now analyze the schedule for possible resource contention.

Work Packages:

Work Package VC1: Voluntary Contributions Initial Functionality - Long-Term

- Production Deployment Date: 9/22/2020
- User Acceptance Testing was completed on 9/11/2020
- Deployment planning was completed on 9/15/2020
- The Quality Gate to release to production was completed on 9/16/2020

Work Package 2.1: Voluntary Contributions Off-line Tools SSIS - Long-term

- Production Deployment Date: 1/26/2021
- Construction is currently in process and will be due on 9/28/2020
- BFT will begin on 9/29/2020

Project objective:

Effective July 1, 2020 this section of the bill redirects a portion of member contributions to a new Employee Pension Stability Account (EPSA) when the funded status of the plan is below 90% and the member's monthly salary is more than \$2,500.

Work Package VC1: Voluntary Contributions Final Functionality - Long-Term

- Production Deployment Date: 11/19/2020
- Construction was completed on 8/28/2020
- Business Functional Testing is currently in progress and is due on 10/2/2020
- UAT will begin on 10/5/2020

Work Package 2.2 Voluntary Contribution Off-line Tools Forecaster Tool Long-Term

- Production Deployment Date: 1/26/2021
- Construction will begin on 9/14/2020
- BFT will begin on 10/26/2020

Additional long-term work packages exist. See the Milestones Schedule for a complete list of work packages

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Budget health: Red Activities are planned beyond 2019-21 biennium, but the 2021-2023 budget has not been approved.

29560 SB1049 - Member Redirect Project					
Expenses	Budget	Actual to Date	Projections	Total	Variance
*Personal Services - PERS	\$ 1,370,000	\$ 738,520	\$ 609,000	\$ 1,347,520	\$ 22,480
General Overhead Allocation	\$ 3,302,063	\$ 1,956,814	\$ 1,328,000	\$ 3,284,814	\$ 17,249
Personal Services - SB1049	\$ 5,024,767	\$ 1,288,889	\$ 1,630,777	\$ 2,919,666	\$ 2,105,101
Services and Supplies	\$ 426,890	\$ 190,174	\$ 133,958	\$ 324,132	\$ 102,758
IT Professional Services	\$ 12,100,000	\$ 5,544,222	\$ 5,462,956	\$ 11,007,178	\$ 1,092,822
IT Expendable Property	\$ 200,000	\$ 88,573	\$ 110,000	\$ 198,573	\$ 1,427
Data Processing Hardware	\$ 200,000	\$ 193,798	\$ 6,000	\$ 199,798	\$ 202
SB1049 Total Expenses	\$ 21,253,720	\$ 9,262,469	\$ 8,671,691	\$ 17,934,160	\$ 3,319,560
Project Total	\$ 22,623,720	\$ 10,000,989	\$ 9,280,691	\$ 19,281,680	\$ 3,342,040
Average Monthly Spend (Burn Rate)		\$ 712,497.61	\$ 788,335.55		
*Not included in SB1049 Expenses					

Schedule Health: Green

The current project tasks are on schedule for all current milestone dates.

Scope health: Green

The project scope is understood for all releases.

Quality Assurance activities:

- The Quality Gate for Voluntary Contributions Release 1 was complete and approved to production on 9/16/2020.
- The Quality Gate Meeting for Voluntary Contributions Release 2 will be on 11/18/2020.

Emerging concerns/needs/impacts:

- No emerging concerns or needs.

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

High Level Project Risks and Mitigation

Listed below are the most critical risks for this project.

For the complete Risk Log, please see the Risk Log tab in the most recent weekly status report: [Member Redirect Weekly Status Report](#)

#	Risk Description	Mitigation and/or Contingency Plan	Notes
59	Staffing risk: The current Test Analyst retired on 8/31/2020. There is a risk that the Voluntary Contributions Release 1 will not have a facilitator for the Quality Gate meetings.	➤ Carole Scheck will be coordinating the Quality Gate meetings for the 9/22/2020 Voluntary Contributions Deployment.	The new QA Analyst, Om Raj Singh, is also being trained to conduct future Quality Gate meetings
60	Scope Change: When a change request is approved, there is a likely hood of scope creep and rework on requirements. Any additional scope will also impact schedule and budget because the 2021-2023 biennium is yet to be approved.	➤ The project manager, program manager and business process analyst will work with the change request authors to ensure that it is indeed critical to SB 1049 and not part of modernization.	There is a change request currently being drafted in regards to the IAP lock data. In order to make a lock of the VC data work correctly, PERS staff would also need to be able to lock the member's IAP and EPSA data at the same time, preventing one account from being locked while another can still be modified. The draft of this CR was submitted to the Core team on 9/17/2020.

Project Issues and Action Plans

Listed below are the most critical issues for this project.

For the complete Issue Log, please see the Issue Log tab in the most recent weekly status report: [Member Redirect Weekly Status Report](#)

No	Issue	Resolution / Notes	Estimated Resolution Date
	No current issues		

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Project Schedule Deliverables and Milestones

Milestones Schedule				
Milestone	Percent Complete	Baseline Finish Date	Actual / Forecast Finish Date*	Status/ Notes
WPVC - Release 1 - (Capture Election, Collecting Contribution, Retroactive Reporting and General Ledger) - Construction Complete	100%	6/30/2020	6/30/2020	
WPVC - Release 1- (Capture Election, Collecting Contribution, Retroactive Reporting and General Ledger) - BFT Complete	100%	8/7/2020	8/7/2020	
WPVC - Release 1 - Capture Election, Collecting Contribution, Retroactive Reporting and General Ledger) - UAT Complete	100%	9/11/2020	9/14/2020	
WPVC - Release 1 -(Capture Election, Collecting Contribution, Retroactive Reporting and General Ledger) - Deployment complete	0%	9/22/2020	9/22/2020	
WPVC - Release 2 (Full Functionality)	0%	11/19/2020	11/19/2020	
WP2 - Voluntary Contribution Off-Line Tools	0%	1/26/2021	1/26/2021	
WP3 - EPSA Earnings	0%	2/25/2021	2/25/2021	
WP4 - EPSA Maintenance	0%	6/24/2021	6/24/2021	
WP5 - Voluntary Contribution maintenance	0%	10/29/2021	10/29/2021	
WP6 - EPSA Retirement	0%	1/27/2022	1/27/2022	
WP7 - EPSA Divorce	0%	4/28/2022	4/28/2022	
WP8 - Pre-Retirement Death	0%	7/28/2022	7/28/2022	
WP9 - Withdrawals	0%	11/17/2022	11/17/2022	
WP10 - Post-Retirement Death	0%	3/31/2023	3/31/2023	

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Milestones Schedule				
Milestone	Percent Complete	Baseline Finish Date	Actual / Forecast Finish Date*	Status/ Notes
WP11 - Maintaining Benefits	0%	8/24/2023	8/24/2023	
WP12 - Full EPSA Set up screen	0%	12/21/2023	12/21/2023	
Migration Finalization	0%	3/29/2024	3/29/2024	
Project Complete	0%	4/24/2024	4/24/2024	

*Finish Date Color: Green = on Schedule, Yellow = in Jeopardy, Red = Late

Project information: Member Choice

Project start: October 23, 2019 | **Project end:** August 4, 2021

Project Manager: Joli Whitney

Overall project status: **Green**

Project Narrative: The short term solution to meet the January 1, 2021 legislative mandate for Member Choice launched as scheduled on September 1. PERS provided access for members through Online Member Services (OMS) to make their optional TDF "Member Choice" election. A paper form for members who are unable or unwilling to use OMS was also be available on September 1. In the first week over 250 members submitted a choice for a TDF different than their default fund.

The team has begun construction on the next body of work, Work Package 2.1 (WP2.1) which contains only backlog items from the first work package.

Short-term Solutions (to meet 1/1/21 Member Choice effective date)

WP1: Member Election - Short-term

WP1.1 Online Election

- Production Deployment Date: 8/20/2020 (Complete)
- OMS Election Ability
- jClarety User Interface

Other Sub-packages of WP1

- WP1.2 Voya's updates to website and nightly sweep program- Deploys 1/19/2021
- WP1.3 PERS paper form election process including workflow (Complete- Deployed 8/12/2020)
- WP1.4 Development of new reports (to Voya and internal) - Deploys 10/2/2020

Project objective:

The Member Choice sections of SB 1049 give members a say in how their Individual Account Program (IAP) accounts will be invested. Members' regular IAP accounts are currently allocated to Target-Date Funds (TDF) based on their year of birth. Beginning with calendar year 2021, members will be able to elect a TDF other than the default TDF.

WP2- Refining TDF Processes - Long-term

WP2.1 WP1.1 Backlog

- Production Deployment Date: 3/4/2021

WP2.2 TDF Daily File Validator Tool

- Production Deployment Date: 5/27/21

WP3- Earnings Rates and Validations Updates in jClarety - Long-term

- Production Deployment Date: 6/30/2021
- Add IAP Earnings Rate table to jClarety
- Date of Birth (DOB) validation updates for jClarety employer reporting

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Budget health: Green

Member Choice Project is currently within the budget allocated by the Legislature.

29560 SB1049 - Member Choice Project Budget					
Expenses	Budget	Actual to Date	Projections	Total	Variance
*Personal Services - PERS	\$ 860,000	\$ 506,020	\$ 350,000	\$ 856,020	\$ 3,980
General Overhead Allocation	\$ 220,138	\$ 130,454	\$ 88,000	\$ 218,454	\$ 1,684
Personal Services - SB1049	\$ 569,354	\$ 85,850	\$ 449,500	\$ 535,350	\$ 34,004
Office Expenses	\$ 500	\$ 114	\$ 250	\$ 364	\$ 136
Professional Services	50,000	\$ 50,000		\$ 50,000	\$ -
IT Professional Services	\$ 1,450,000	\$ 620,355	\$ 806,211	\$ 1,426,566	\$ 23,434
IT Expendable Prop	\$ 6,340	\$ 5,535	\$ 500	\$ 6,035	\$ 305
SB1049 Total Expenses	\$ 2,296,332	\$ 892,309	\$ 1,344,461	\$ 2,236,770	\$ 59,562
Project Total	\$ 3,156,332	\$ 1,398,329	\$ 1,694,461	\$ 3,092,790	\$ 63,542
Average Monthly Spend (Burn Rate)		\$ 68,639.14	\$ 122,223.73		
*Not included in SB1049 Expenses					

Schedule Health: Green

Project activities are proceeding according to schedule. Activities continue with Deloitte to perform a detailed assessment to validate the effort estimates and resources for the schedule.

Scope health: Green

The project scope is well understood.

Quality Assurance activities:

- Quality Check Point (QCP) of System Design Specification (SDS) v2.0 (for WP2) was approved on 9/9/20
- A QCP of the Work Package Construction Development Draft (WPD) was approved on 9/8/2020

Emerging concerns/needs/impacts:

- No emerging concerns

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

High Level Project Risks and Mitigation

Listed below are the most critical risks for this project.

For the complete Risk Log, please see the Risk Log tab in the most recent weekly status report: [Member Choice Weekly Status Report](#)

#	Risk Description	Mitigation and/or Contingency Plan	Notes
17	Competing SB 1049 Resources: Critical resources are involved in multiple concurrent SB 1049 projects, limiting availability for individual projects	➤ Careful coordinated schedule planning with Program Manager and Member Redirect Project Manager; affected staff are setting priorities and working overtime if needed. Business Owner or Program Business Owner may reassign other staff to help cover absences or help offset extreme workload periods. Deloitte continues to work with PERS to build an effort-based resource-loaded schedule to validate project assignments across all projects in the program	Shared resources across the SB 1049 Program continue to be a challenge. Schedule assessment from Deloitte should help identify resource contention and proactive planning of activities. Concerns over quality of work have been expressed, but these concerns have not resulted in any issues.

Project Issues and Action Plans

Listed below are the most critical issues for this project.

For the complete Issue Log, please see the Issue Log tab in the most recent weekly status report: [Member Choice Weekly Status Report](#)

No	Issue	Resolution / Notes	Estimated Resolution Date
	No current issues		

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

Project Schedule Deliverables and Milestones

Milestones Schedule				
Milestone	Percent Complete	Baseline Finish Date	Actual / Forecast Finish Date*	Status/ Notes
Baseline Project Schedule	100%	7/7/2020	7/7/2020	
WP1.1 Development Complete	100%	6/26/2020	6/26/2020	
WP1.1 Business Functional Testing Complete	100%	7/17/2020	7/17/2020	
WP1.1 User Acceptance Testing Complete	100%	8/14/2020	8/14/2020	
WP1.1 Deployment Complete	100%	8/20/2020	8/20/2020	
Member Choice Election Period Opens	100%	9/1/2020	9/1/2020	
WP2.1 Requirements Complete	100%	7/24/2020	8/25/2020	More detailed business requirements were requested by the technical team
Member Choice TDFs Effective (Legislative deadline)	0%	1/1/2021	1/1/2021	
WP2.1 Development Complete	0%	1/5/2021	1/20/2021	More development time was requested following updated requirements
WP2.1 Business Functional Testing Complete	0%	1/26/2021	1/15/2021	
WP2.1 User Acceptance Testing Complete	0%	2/4/2021	2/19/2021	
WP2.1 Deployment Complete	0%	2/23/2021	3/4/2021	The overall impact to schedule is deployment 1 week later than projected
WP3 Requirements Complete	0%	1/21/2021	1/21/2021	
WP3 Development Complete	0%	5/4/2021	5/4/2021	

SB 1049 Implementation Program

Status Report for September 18, 2020

Executive Sponsor: Kevin Olineck
Program Manager: Christa Harrison

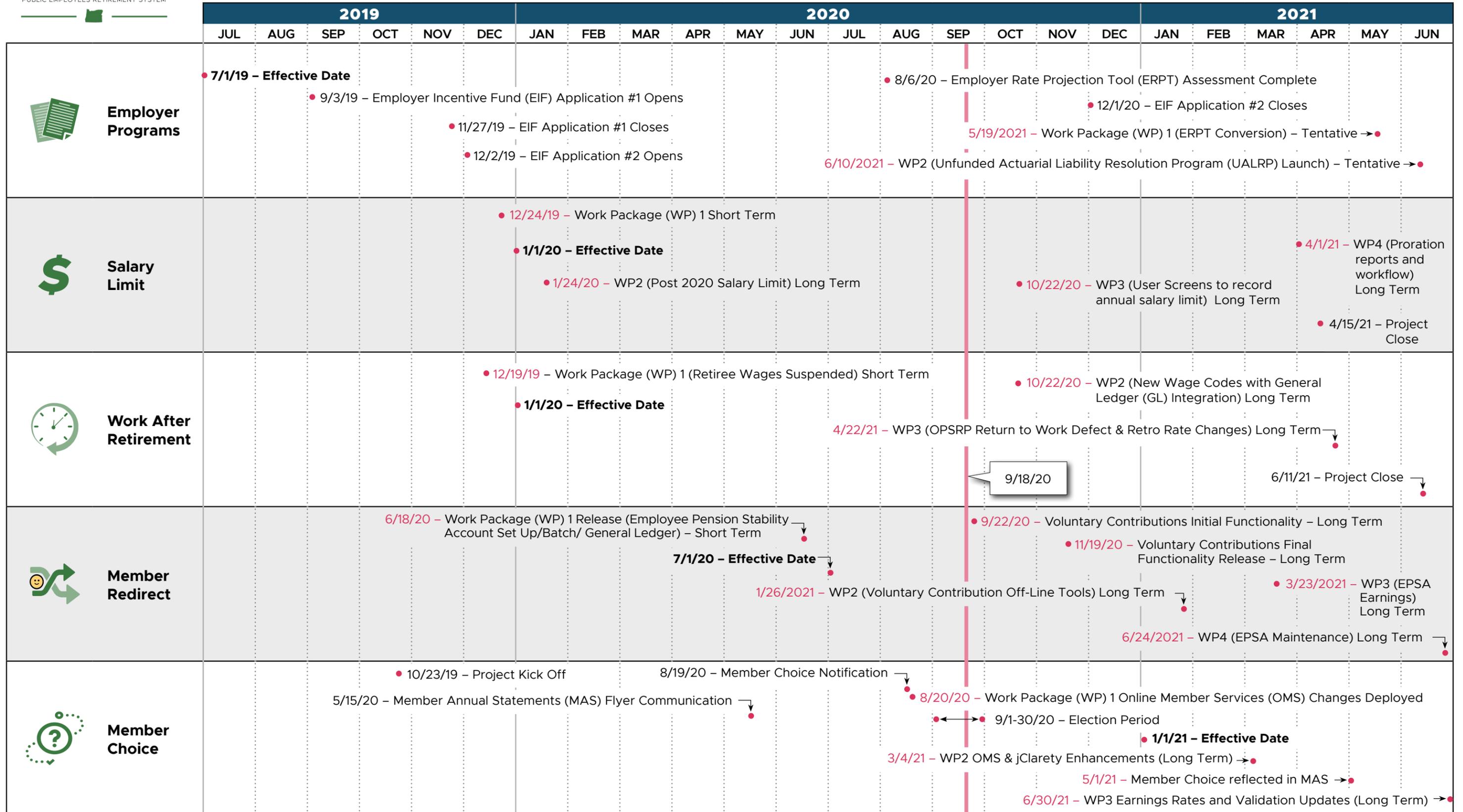
Milestones Schedule

Milestone	Percent Complete	Baseline Finish Date	Actual / Forecast Finish Date*	Status/ Notes
WP3 Business Functional Testing Complete	0%	5/24/2021	5/24/2021	
WP3 User Acceptance Testing Complete	0%	6/23/2021	6/23/2021	
WP3 Deployment Complete	0%	6/30/2021	6/30/2021	
Project Close	0%	8/4/2021	8/4/2021	

*Finish Date Color: Green = on Schedule, Yellow = in Jeopardy, Red = Late

Senate Bill (SB) 1049 Implementation Road Map

2019-2021 Biennium



2021-2023 Biennium

PROJECTS	2021						2022						2023										
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
 Employer Programs	<ul style="list-style-type: none"> 7/13/2021 – Project Close – Tentative 																						
 Salary Limit																							
 Work After Retirement																							
 Member Redirect							<ul style="list-style-type: none"> 10/29/2021 – WP5 (Voluntary Contribution Maintenance) Long Term 1/27/2022 – WP6 (EPSA Retirement) Long Term 4/28/2022 – WP7 (EPSA Divorce) Long Term 						<ul style="list-style-type: none"> 11/17/2022 – WP9 (Withdrawals) Long Term 3/31/2023 – WP10 (Post-Retirement Death) Long Term 7/28/2022 – WP8 (Pre-Retirement Death) Long Term 										
 Member Choice	<ul style="list-style-type: none"> 8/4/21 – Project Close 																						

2023-2025 Biennium

PROJECTS	2023						2024						2025											
	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN
 Employer Programs																								
 Salary Limit																								
 Work After Retirement																								
 Member Redirect																								
 Member Choice																								

- 8/24/2023 – WP11 (Maintaining Benefits) Long Term
- 12/21/2023 – WP12 (Full EPSA Set up Screen) Long Term
- 3/29/2024 – Migration Finalization
- 4/24/24 – Project Close



Oregon

Kate Brown, Governor

Public Employees Retirement System

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October 2, 2020

TO: Members of the PERS Board
FROM: Kevin Olineck, Director
SUBJECT: Board Funding Policy

OVERVIEW

Action: Adopt the proposed Board Funding Policy

BACKGROUND

As a follow up to the October 2019 Secretary of State Actuarial Review entitled: *A Review of the Oregon Public Employees Retirement System*, management was to develop a single written funding policy document that incorporates the entire rate setting policy, including rate collaring.

Attachment 1 is the proposed Funding Policy (the “Policy” in this memo) for the board’s review and adoption. Management reviewed numerous peer organizations’ policies and related professional literature regarding the development of funding policies and is proposing one that reflects the current rate setting process, as well as incorporates the funding guidelines the board adopted in 2005.

This Policy was discussed at the August 7, 2020 Audit Committee meeting. After review, the Committee recommended that it be brought to the October board meeting for review and adoption.

BOARD OPTIONS

The PERS Board may:

1. Pass a motion to “adopt the Board Funding Policy, as presented.”
2. Direct staff to make other changes to the Policy or explore other options

STAFF RECOMMENDATION

Staff recommends the PERS Board choose Option #1

Attachment 1 –*Board Funding Policy*



PERS Funding Policy

Statutory Authority

Oregon Revised Statutes Chapter 238 sets out the statutory duties of the PERS Board (“the Board” for the purposes of this document) including:

- Administer the system to create and maintain long-term stability and viability in the system, and shall act to achieve full funding for the benefits provided by the system, giving equal consideration to the interests of the public employer and the employee, to the extent that treatment does not violate the fiduciary duties of the Board.
- Publish an actuarial report at least once every two years, evaluating the system’s current and prospective assets and liabilities and its financial condition, including the mortality, disability, and other experience of the members and employers.
- Adopt actuarial equivalency factor tables at least once every two years, using the best actuarial information on mortality available at the time of adoption.

Funding Policy Background

A funding policy provides a transparent, dependable and systematic process to ensure System funding objectives are met over the long-term. As fiduciaries of the PERS System, the Board has a fundamental objective to ensure the System is adequately funded, through current plan assets and future contributions and investment earnings, in order to provide the benefits to the members when due.

In 2004, the Board adopted high-level objectives to assist in guiding the funding of the System as follows:

- Transparency of shortfall and funded status calculations
- Predictable and stable employer contribution rates
- Protection of the System’s funded status to enhance benefit security for members
- Equity across generations of taxpayers funding the program
- Actuarial soundness – the objective is to craft a funding policy that will fully fund the System over a selected time period if assumptions are met
- Compliance with GASB (Governmental Accounting Standards Board) requirements

While the Board acknowledges there are inherent conflicts and tensions between the objectives noted above, it recognizes that funding policy decisions should be aligned with the long-term nature of the plans and the System’s funding objectives.

The PERS Funding Equation

The Board, as part of this Funding Policy, acknowledges the fundamental equation of pension plan financing, the role that various entities, including the Board, play within that equation, and the fact that the Board's primary responsibility within the equation is to set a contribution rate that balances this equation.

$$B = C + E$$

BENEFITS	=	CONTRIBUTIONS	+	EARNINGS
present value of earned benefits		employer and member funds to pay pension benefits		future returns on invested funds
Design set by: Oregon Legislature		Set by: PERS Board		Managed by: Oregon Investment Council

Investment Decisions and Oversight

The Board is not charged, in Statute, with the investment of the PERS Fund. The Oregon Investment Council (OIC) oversees the investment and allocation of all State of Oregon trust funds, including the Oregon Public Employees Retirement Fund (OPERF). The three primary governance documents that guide the OIC are as follows:

Statement of OIC Investment Beliefs and Management Beliefs

Statement of Funds Governance

Statement of Investment Objectives and Policy Framework for the Oregon Public Employees Retirement Fund

While the Board and the OIC are separate entities and operate accordingly, there is an obvious and necessary requirement for the two entities to be aware of and informed by the other's decisions. To that end, the Board and OIC have instituted regular joint meetings that take place in June of odd-numbered years. This meeting follows the April OIC meeting where the OIC reviews and adopts the OPERF asset allocation policy, including up-to-date market expectations for future investment returns, and precedes the PERS Board meeting where the Board adopts new actuarial assumptions and methodologies, including the actuarial assumed rate of return to be used in future actuarial valuations and actuarial equivalency factors.

Additionally, the PERS Director is an ex-officio member of the OIC and is charged with keeping the OIC informed of any changes to the PERS System that may impact OPERF. As an OIC member, the PERS Director also keeps the PERS Board informed of OIC policies that may impact OPERF.

Contribution Rate Setting Cycle

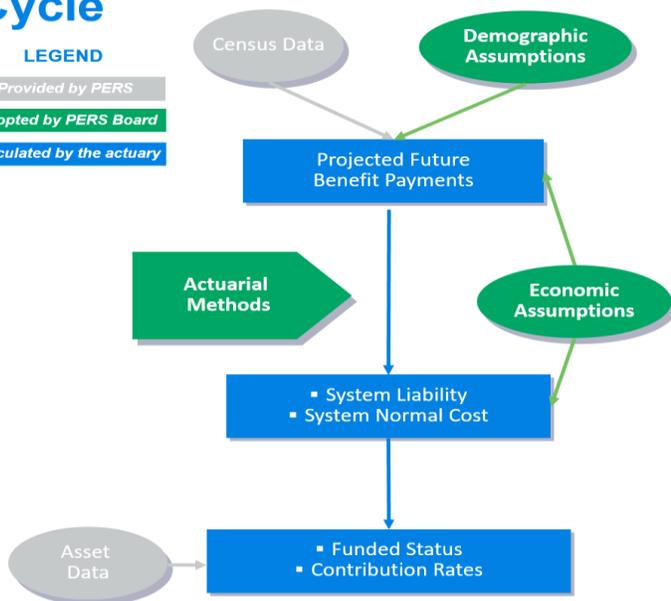
The Board has established a two-year cycle for completing actuarial valuations. The analysis and valuations done in an odd-numbered year (i.e., 2019, with results as of December 31, 2018) are deemed to be "advisory" valuations, in that they do not directly impact employer contribution rates. Instead, these results allow employers an opportunity to understand what their estimated contribution rates are, in order to appropriately budget for future contributions. In the even-numbered years (i.e., 2020, with results as of December 31, 2019) the actuarial results are reviewed and formally adopted by the Board

and the next biennium's (i.e. July 1, 2021 through June 30, 2023) employer contribution rates are set based on those results.

Two-Year Rate-Setting Cycle

- July 2019: Assumptions & methods adopted by Board in consultation with the actuary

- October 2019: System-wide 12/31/18 actuarial valuation results
- December 2019: Advisory 2021-2023 employer-specific contribution rates
- July 2020: System-wide 12/31/19 actuarial valuation results
- September 2020: Disclosure & adoption of employer-specific 2021-2023 contribution rates



Biennial Actuarial Experience Studies and Adoption of Actuarial Assumptions & Methodologies

In odd-numbered years, as part of the biennial Contribution Rate Setting Cycle noted above, the Board, over multiple meetings, shall review, and ultimately adopt as necessary, revised actuarial assumptions and methodologies. As part of this review cycle, the consulting actuary will perform an actuarial experience study to assist the Board in reviewing the experience of the System and provide a recommendation on changes to assumptions and methodologies.

The adopted assumptions and methodologies shall remain in effect for the next two-year valuation cycle absent any subsequent action by the Oregon Legislature that would modify either the assumptions and methods or the level of projected System benefits.

Actuarial Methodology

The following are the key actuarial assumptions and methodologies adopted by the Board in 2019.

Method	December 31, 2018 and 2019 Valuations
Investment Return Assumption	7.20%
Cost Method	Entry Age Normal
Funded Status	The actuarial value of assets expressed as a percentage of the actuarial accrued liability. For the purposes of this policy, funded status is determined without taking side account balances into effect.
Asset valuation method	Market value of assets, excluding amounts in the Contingency Reserve, Capital Preservation Reserve, and Tier 1 Rate Guarantee Reserve. The Tier 1 Rate Guarantee Reserve will not be excluded if it is in deficit status.

Unfunded Actuarial Liability (UAL) Amortization Method	UAL amortized using closed, layered periods as a level percent of combined Tier 1/Tier 2 and OPSRP payroll.
UAL Amortization Period	<p>UAL bases – closed amortization from the first rate-setting valuation in which experience is recognized.</p> <ul style="list-style-type: none"> • For the December 31, 2019 Valuation only, all existing Tier 1 and Tier 2 UAL will be re-amortized over a 22 year period as per SB 1049 (2019). • For future valuations, new layers of Tier 1 and Tier 2 UAL will revert back to a 20 year amortization period. • OPSRP – 16 year amortization period. • RHIA – 10 year amortization period. • Newly established side accounts – Typically amortized over the remainder of the 20-year period from the most recent rate-setting valuation. Employers who make lump sum payments in accordance with the rules of OAR 459-009-0086(9) may select a shorter amortization period of either 6, 10, or 16 years since the most recent rate-setting valuation. • Newly established transition liabilities or surpluses – 18 years from the date joining the SLGRP (State & Local Government Rate Pool).
Rate Collar	Change in the base contribution rate for an experience-sharing pool limited (i.e., collared) to greater of 20% of current base rate or 3% of payroll, when the funded status is 70% or greater. Size of collar doubles if funded percentage excluding side accounts falls below 60% or increases above 140%. If the funded percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale. Exclude RHIA and RHIPA (retiree medical) rates from the rate collar calculation.

Actuarially Determined Contributions & Rate Collaring

It is the Board’s intent to determine, for the next biennium, the actuarially determined contribution rate (ADC). This contribution rate will be calculated in a manner that will, ultimately, fully and systematically fund the long-term costs of promised benefits, while balancing, as best possible, the at-times competing funding objectives noted above.

It is important to note that, for the purposes of describing the ADC, the Board takes into account the rate collaring process set out in the actuarial assumptions and methodologies. The ADC is then described as the collared rate. This policy for determining the ADC has been in effect since it was adopted by the Board for the December 31, 2005 actuarial valuation, which set contribution rates for the 2007-2009 biennium. The collared rate for an experience-sharing pool consists of the normal cost rate and the UAL rate, as limited by the rate collar.

In addition to the pension contributions noted above, all employers contribute to the Retirement Health Insurance Account (RHIA). Further, State Agencies and State Judiciary also contribute to the Retiree

Health Insurance Premium Account (RHIPA). While Only Tier 1 and Tier 2 members are eligible for these benefits, the Board has determined that the normal cost rates are only charged to Tier 1/Tier 2 payroll, but the UAL rates are charged to all payrolls.

Contribution rate volatility under ADC funding can be mitigated using a number of smoothing techniques, either on the inputs (e.g., asset smoothing) or the output, which is the contribution rate, (i.e. rate collaring). Asset smoothing is an actuarial method used to systematically recognize gains and losses in assets over a pre-determined period of time (typically five years) to reduce the effects of market volatility and provide stability to actuarially calculated contribution levels. The net effect is the same: smoothing of contribution rates.

The Conference of Consulting Actuaries has stated that use of the rate collaring methodology is acceptable so long as it is “supported by analysis and projections to show the effect on future funded status and future policy based contribution requirements (prior to the application of the contribution collar). There may also need to be a mechanism to ensure adequate funding following extraordinary actuarial losses.” These two elements form part of PERS’ rate collaring methodology.

Funding Risks

In order to fund the plans at an acceptable projected budgetary contribution cost over the long term, taking on a degree of investment and other funding risks is considered appropriate. The Board is responsible for determining the appropriate overall level of funding risk and determining strategies to mitigate the following funding risks. Examples of these strategies include performing yearly actuarial valuations, yearly stochastic financial modeling exercises, and a full experience study on a biannual basis.

The plans are impacted by a range of economic risk factors, including inflation rates and interest rates. Inflation rates can affect overall salary increases, while interest rates can impact the present value of plan liabilities and investment returns.

Investment risk is a significant risk factor that affects the funding of the plans. Investment performance has a direct influence on the plans’ funded status, and changes to future investment return expectations influence both the funded status and the projected level of the plans’ actuarially calculated contribution rates. The Board takes into account the OIC’s up-to-date market expectations for future investment returns into consideration, which includes investment risk, as part of their overall risk review.

Demographic risk factors for the plans include the general characteristics of the plans’ populations, such as member age, sex, marital status, expected longevity, salary progression rates, termination rates, and early retirement rates. These variables directly impact the projected pension liability, and there is a risk that the plans’ demographic experience varies from the projection. While demographic factors, in general, change slowly over the short term, they are important drivers of long-term plan funding risk, particularly long-term longevity factors for retiree life expectancy.

The distinction between Tier 1, Tier 2, and OPSRP membership is an important demographic risk factor, since the contribution rates paid by an employer vary by payroll type.

The risks related to having assets readily available to fund benefit payments, when needed, requires effective management of the plans’ liquidity. To the extent that the average duration of the plans’ liabilities are relatively long, with no immediate net cash outflow, the assets may be managed with a

longer time horizon, exhibiting low liquidity and higher equity allocation. When a greater proportion of assets invested by the OIC are expected to directly support near-term benefit payments, managing the liquidity risk related to asset-liability matching will be increasingly important.

Public sector pension plans face a level of scrutiny and attention not faced by other pension plans. There is a risk that funding decisions can become unduly influenced by temporary external pressures or opinions. Adopting a funding policy establishes a solid framework for funding decisions and helps mitigate this risk.

Governance of the plans requires careful coordination between many entities – the PERS Board, OIC and the Oregon Legislature. Authority, accountability, cost monitoring, and reporting related to the plans can be challenging, given the distributed nature of the governance structure.

Confidence in the risk assessment of the plans depends on plan data, computer systems, programs and risk models used to conduct this assessment. Confidence also depends on the transparency, understandability, and soundness of the Board's funding policy. Ensuring accuracy of plan data, systems, and models is important to mitigate risk.

Review Cycle

This funding policy will be reviewed biennially as part of the odd-numbered year review of the System's actuarial assumptions and methodologies.

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Kate Brown, Governor

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www.oregon.gov/pers

October 2, 2020

TO: Members of the PERS Board
FROM: Dean Carson, Susannah Bodman, and Shawn Dempewolf,
PERS Communications Section
SUBJECT: 2020 Member and Employer Satisfaction Survey Results

In 2005, the Legislature required all agencies to survey for standardized customer service performance measures and report results in their budget presentations. In continued accordance with this requirement, PERS conducted annual satisfaction surveys for members and employers in May 2020. Similar to previous years, PERS informed members and employers about the survey opportunity primarily through GovDelivery emails. Information about the surveys was also made available in the April 2020 member newsletter, *Perspectives*, the May monthly employer newsletter, and on numerous pages on the PERS website.

2020 MEMBER SATISFACTION SURVEY KEY FINDINGS

- 7,711 total responses (2,959 total nonretirees, 38% of respondents)
 - Highest response rate in PERS' recent history, most nonretiree responses ever
- Percent rating PERS' overall quality of service as "excellent" or "good" = 89.4% (94.9% among retirees, 78.4% among nonretirees)
- Primary communication channel: GovDelivery (e.g., May 1 email to 38,000 contacts, ~20% response rate)

Overall, PERS' 2020 results for members show an increase in satisfaction from 2019 and were fairly similar to 2018 results, following the trend of higher satisfaction during years when the Legislature is not in regular session. This is notable as overall member response rates continued to increase year-to-year, including from nonretired members.

2020 EMPLOYER SATISFACTION SURVEY KEY FINDINGS

- 270 total responses
- Percent rating PERS' overall quality of service as "excellent" or "good" = 88.6%
- Primary communication channels: GovDelivery (e.g., May 1 email to 2,765 contacts, ~9.7% response rate)

2020 results for employers show a small increase in overall satisfaction. The results do reflect a much lower response rate. PERS employers may have been focused on other reporting requirements during the COVID-19 pandemic.

Analysis and Results: Included with this memo is a presentation outlining the key survey results, analysis, and discussion of themes from member and employer comments. PERS' Senior Marketing and Communications Specialist, Member Communications Specialist, and Employer Communications Specialist will highlight key data during the presentation to the board.

C.5. Attachment 1 - 2020 Member and Employer Satisfaction Survey Results

OREGON PERS

PUBLIC EMPLOYEES RETIREMENT SYSTEM



2020 Member and Employer Satisfaction Survey Results

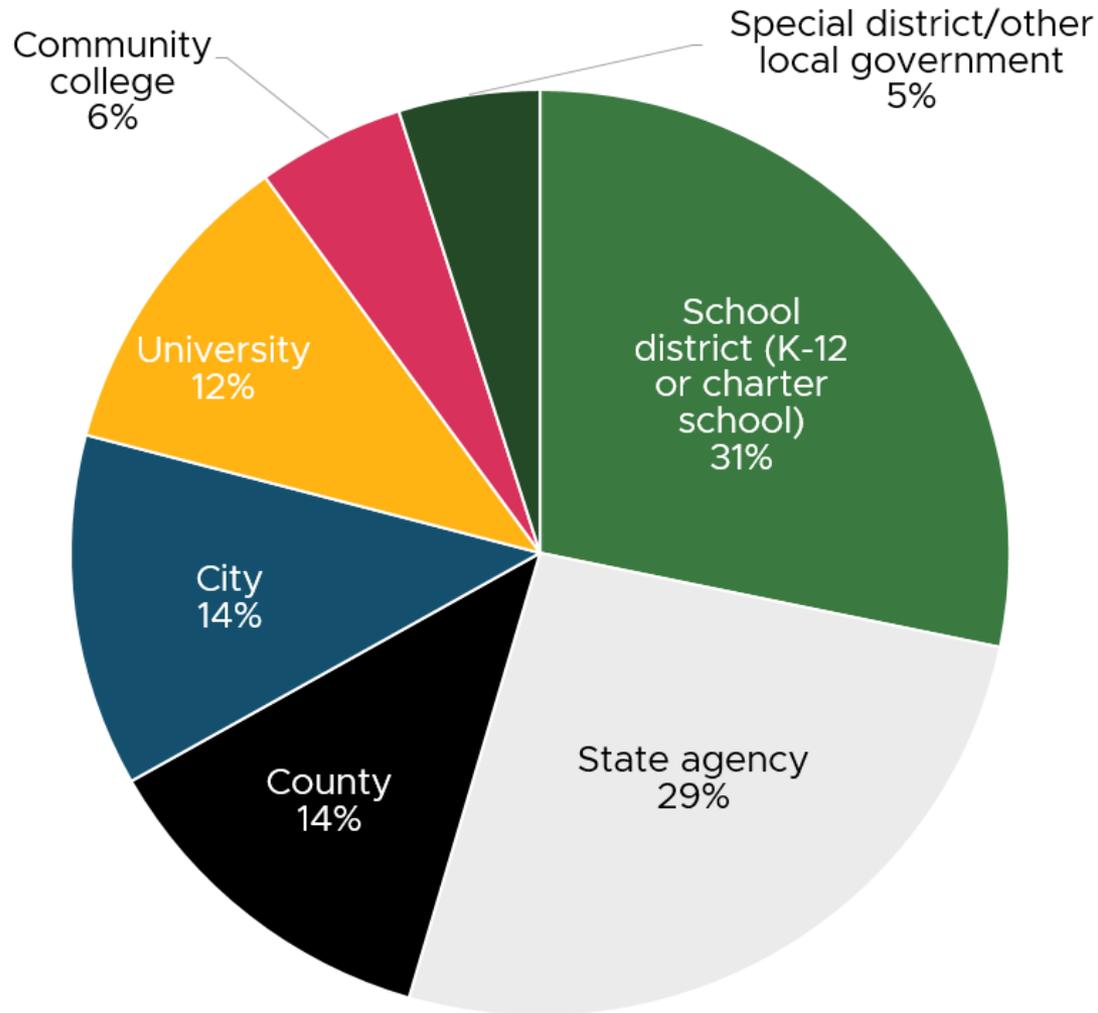


2020 Member Satisfaction Survey

Overview

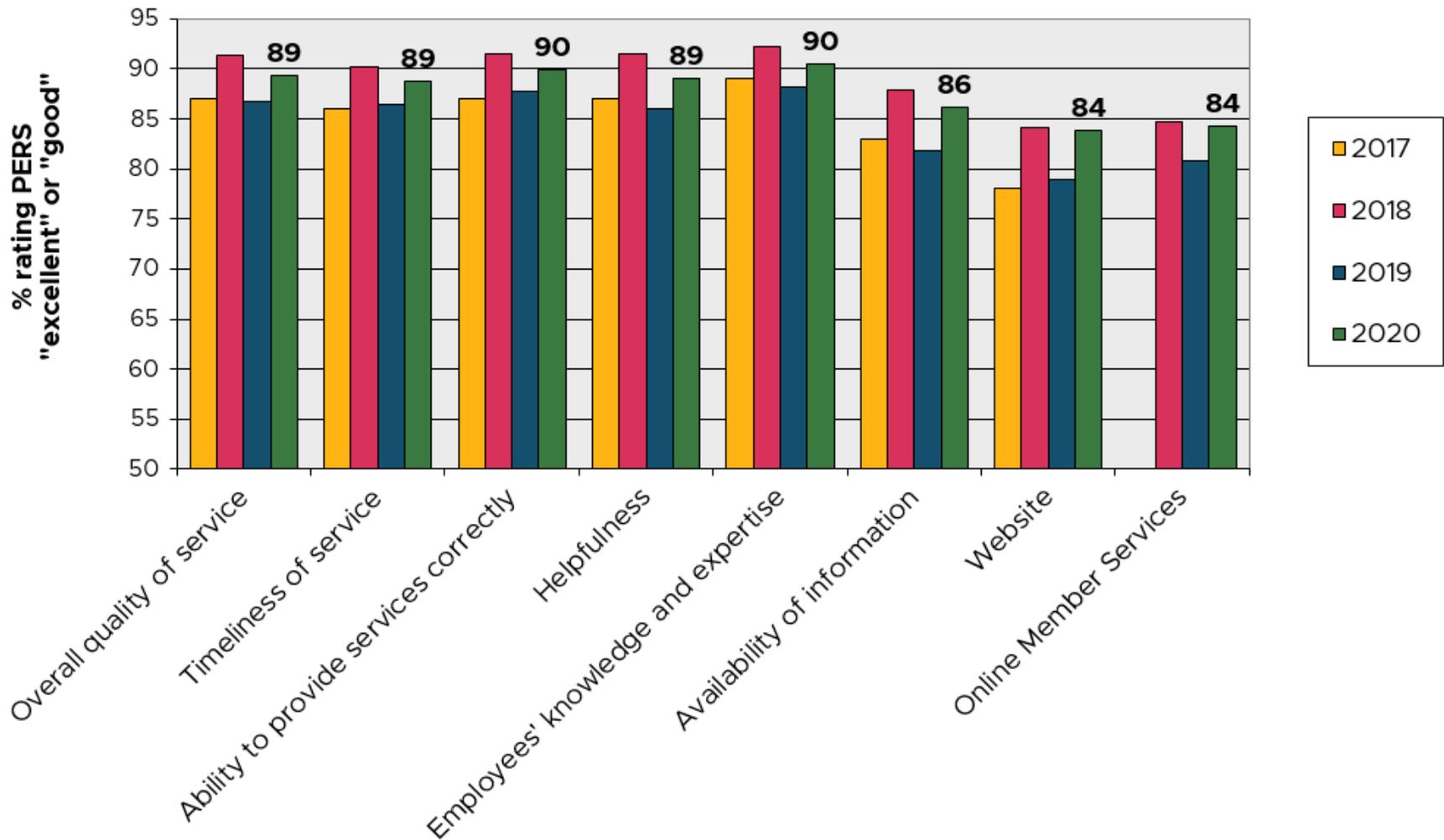
- Conducted May 2020
- Simpler, shorter survey than in 2019
- More than 38,000 members notified primarily via GovDelivery emails
- **7,711 members responded** (~20% response rate)
- ~60% retirees, ~40% nonretirees (rounded)
 - Tier One members most responsive, especially among retirees
 - Tier One/Tier Two and OPSRP evenly represented (nonretirees)
 - Most nonretiree respondents ever – nearly 3,000

Where nonretired members work

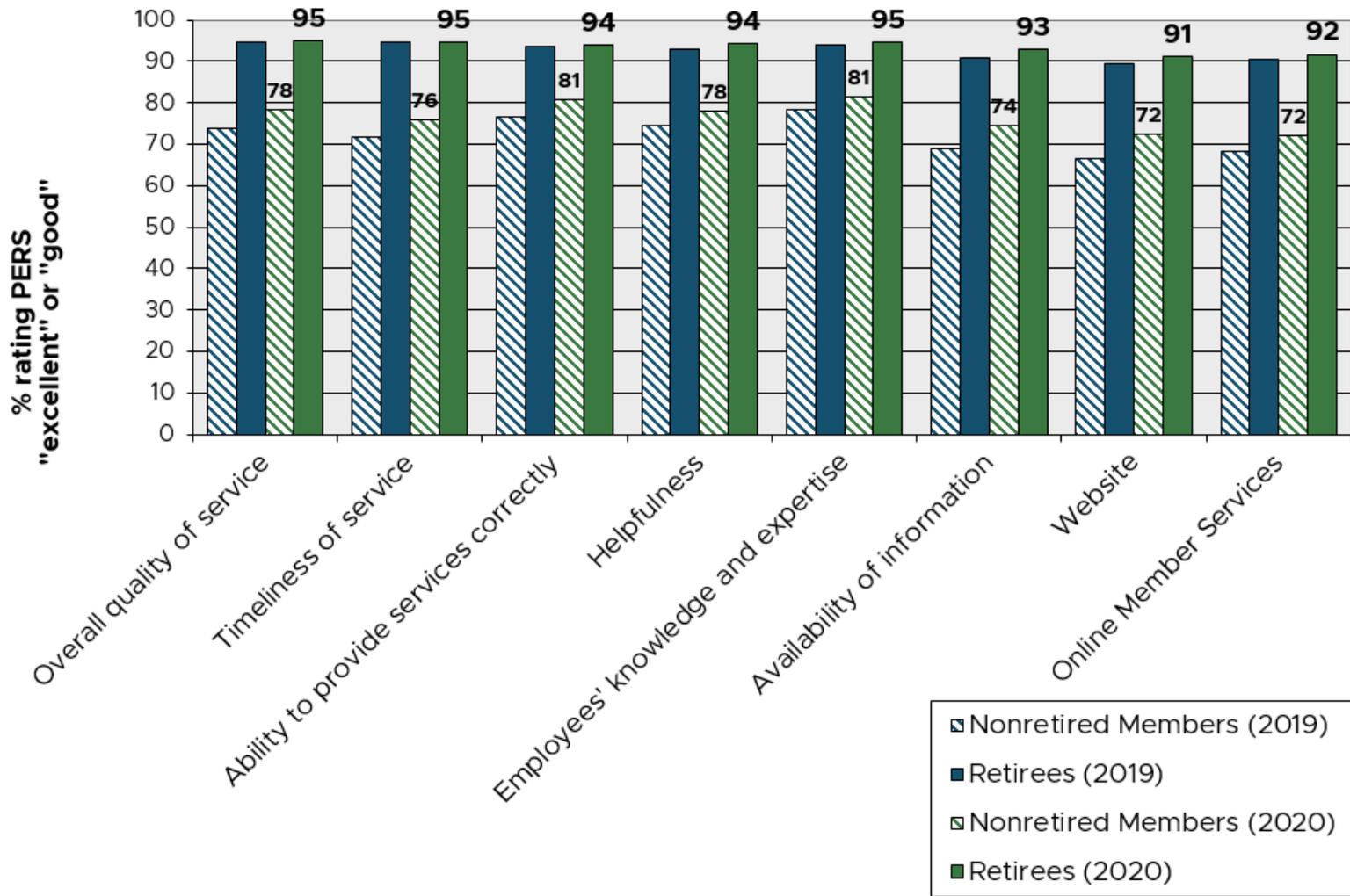


▪ Percentages rounded up

Member satisfaction ratings: 2017-20



Nonretired members vs. retirees: 2019-20



Top member issues in comments

- **Security of retirement benefits** – COVID-19 market volatility and economic concerns
- **Action steps:**
 - Regularly updated PERS website with COVID-19-related information, including links to statements from Oregon Treasury and other resources



[READ ALL UPDATES.](#)

Public Employees Retirement System

PERS Updates on Novel Coronavirus (COVID-19)

For the latest information on the coronavirus in Oregon, visit the [Oregon Health Authority \(OHA\)](#). Resources for reopening and “Building a Safe and Strong Oregon” are available on Governor Brown’s [website](#).

The safety of PERS members and our staff remains our top concern.

To continue to help slow the spread of the novel coronavirus, which causes COVID-19, and to protect members and employees, **Oregon PERS’ headquarters in Tigard and its shared office with the Oregon Savings Growth Plan (OSGP) in Salem remain closed to the public**, and will remain closed until at least December 31, following direction from Gov. Kate Brown.

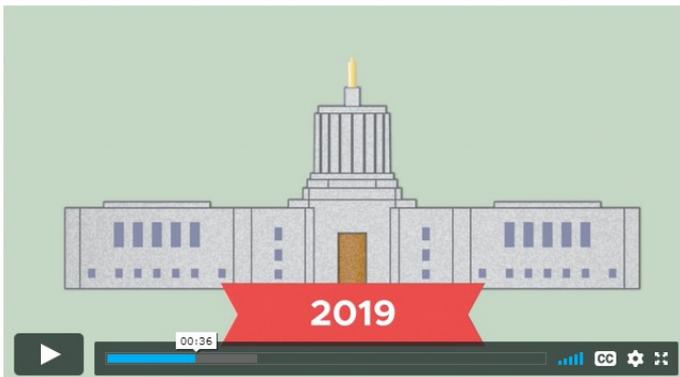
During this closure, PERS continues to serve members and employers through modified operations during [regular business hours](#). PERS, OSGP, and [PERS Health Insurance Program \(PHIP\)](#) member and employer resources can still be reached by phone and email.

Top member issues in comments

- **Senate Bill 1049 changes to benefits** – Especially Member Redirect
- **Action steps:**
 - Information provided to members via multiple updates to SB 1049-related PERS webpages, GovDelivery emails, and newsletter articles
 - New materials planned for 2021 to help members understand agency versus Legislature's roles

IAP Redirect Begins July 1

Starting July 1, 2020, because of SB 1049, if you earn **more than \$2,500 a month**, a **portion** of your 6% IAP contributions will be redirected to a new "Employee Pension Stability Account" (EPSA). Your EPSA will be used to pay for part of **your** future pension benefit. These changes to your IAP contributions will not affect the amount you will receive as your monthly pension benefit when you retire.



PERSPECTIVES

For OPSRP members (hired after August 28, 2003)
August 2020 edition



SENATE BILL 1049

Member Choice window on horizon, IAP Redirect in effect

Find the latest information about Senate Bill (SB) 1049 on the PERS website, and stay informed by signing up for GovDelivery email or text updates.

September 1, 2020
Member Choice window opens

Between **September 1** and **September 30**, you can elect, via PERS Online Member Services, to invest your Individual Account Program (IAP) balance in an IAP Target-Date Fund (TDF) that better reflects your retirement savings goals. PERS will provide more

Choice on the PERS website. If you are signed up for the [IAP Target-Date Fund/Member Choice Updates](#) topic in GovDelivery, you will receive an email or text alert once the window opens.

Changes now in effect
IAP Redirect

Watch our new, animated videos that explain the [two parts to your retirement](#) and [what SB 1049 changed](#) with your IAP contributions. Find full details on our webpage about [SB 1049 changes to member contributions](#).

COVID-19: PERS remains committed to our members

PERS members and staff have weathered many challenges these past few months in the wake of COVID-19. While we have not yet put the pandemic behind us, as PERS director, I wanted to take a moment to express the agency's appreciation for you, our members, during these unprecedented times.

Thank you for your patience, understanding, and flexibility



KEVIN OLINECK
PERS Director

Top member issues in comments

- **Website and member information/account access** – Members want simpler information and better web and account tools
- **Action steps:**
 - Website redesign plans for 2021
 - Continue to work with members, internal subject matter experts to ensure accuracy and clarity of information online

The image displays four screenshots of website navigation menus for different user groups:

- Tier One/Tier Two:** I Want to Retire, Benefit Estimates, Pre-Retirement Guide, Forms (Including Retirement Application), Retirement Application Assistance Sessions (RAAS), Education Sessions, Purchases, Quick Answers.
- OPSRP:** I Want to Retire, Benefit Estimates, Pre-Retirement Guide, Forms (Including Retirement Application), RAAS, Education Sessions, Overview and Benefit Calculation (Information for New Members), Quick Answers.
- Inactive Member Account Withdrawal:** Withdrawal/Inactive Member Information, Member Account Withdrawal Application Packet, Federal Tax Information and Acknowledgement.
- Get Help:** What Do I Do If I..., Most Requested Forms, Data Verification, Death/Divorce/Disability, Publications, Judge Members, Plan Definitions, Benefit Components Comparison, IAP Account Log-On Information.

New Communications POBMS measure

- Level of agreement with survey prompt **“PERS sends communications that are relevant to my needs”** now tracked as annual PERS Outcome-Based Management System (POBMS) measure for Communications
 - Retirees: 94% agree
 - Nonretirees: 77% agree

PROCESS MEASURES: Communicating Internally & Externally														
No.	Measure Name	Measure Calculation	RANGE			Target	Desired Perform	Data Collectio	Data Source	Measure Owner	Last Status	Status	Trend	
			Red	Yellow	Green									
Quality	SP1b	Communications Relevance	% of members who agree that PERS sends communications relevant to their needs	<70%	70-80	>80%	90%	↑	Annually	Member Sat Survey	D. Carson	83%	88%	+

2020 Employer Satisfaction Survey

Overview

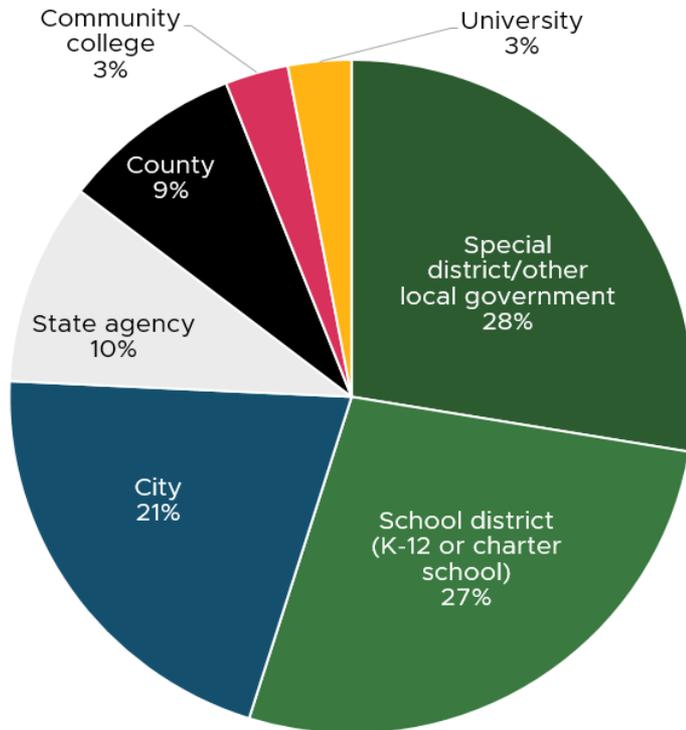
- Conducted May 2020
- Sent to 2,765 employer contacts

Responses

- **270**
 - ~10% response rate
- Lower than previous two years
 - 377 responses last year

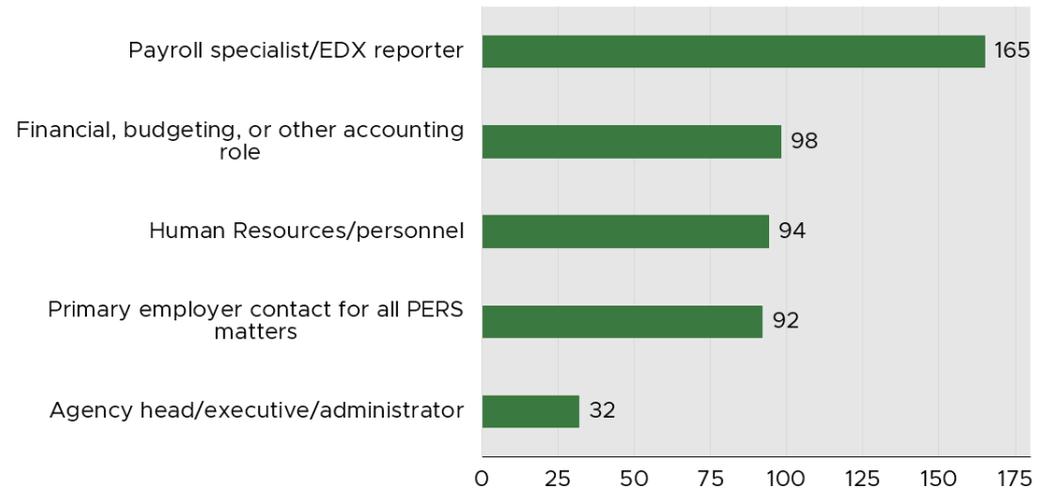
Employer types and roles

Employer Category



- Percentages rounded up

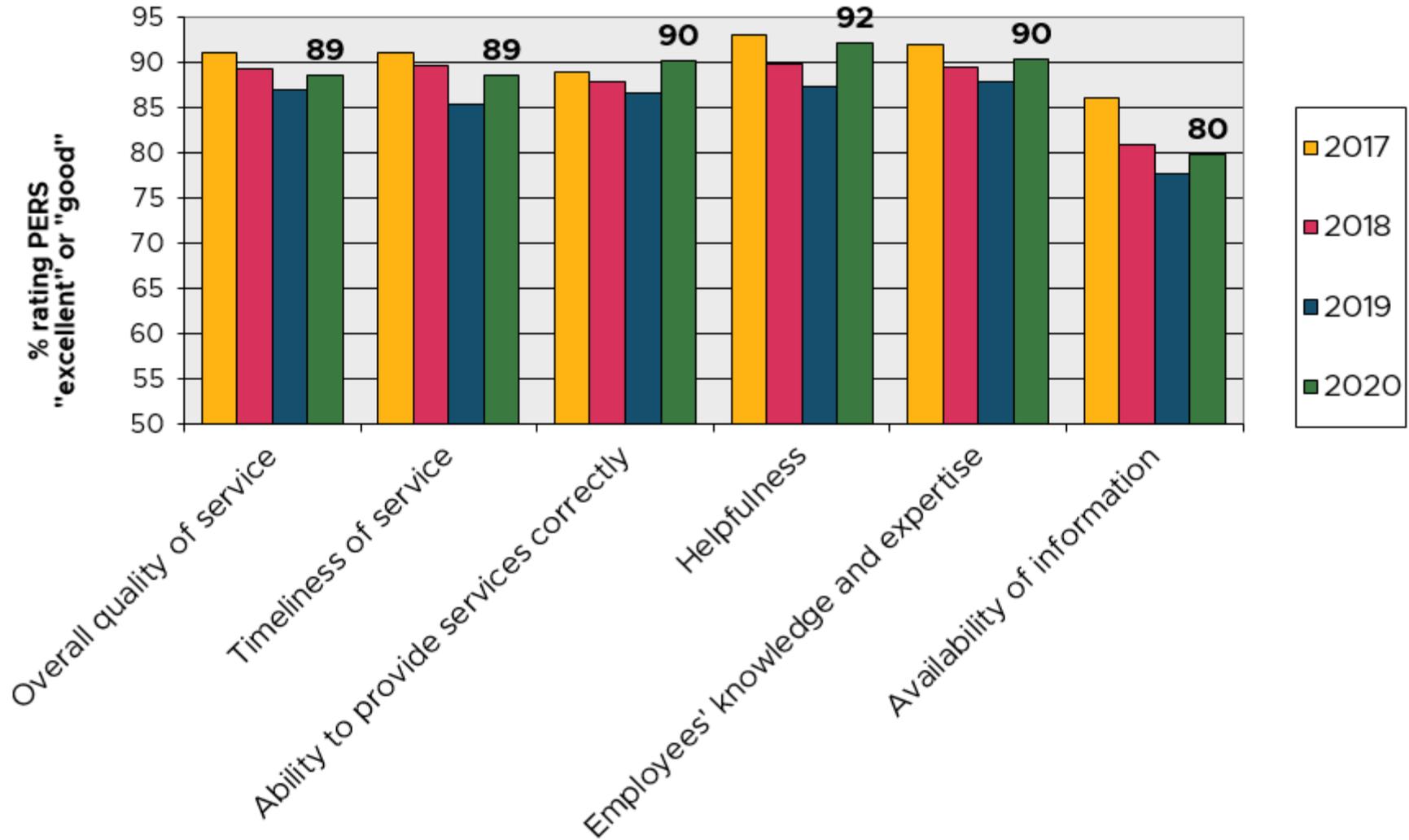
Job Function



- Designates quantity

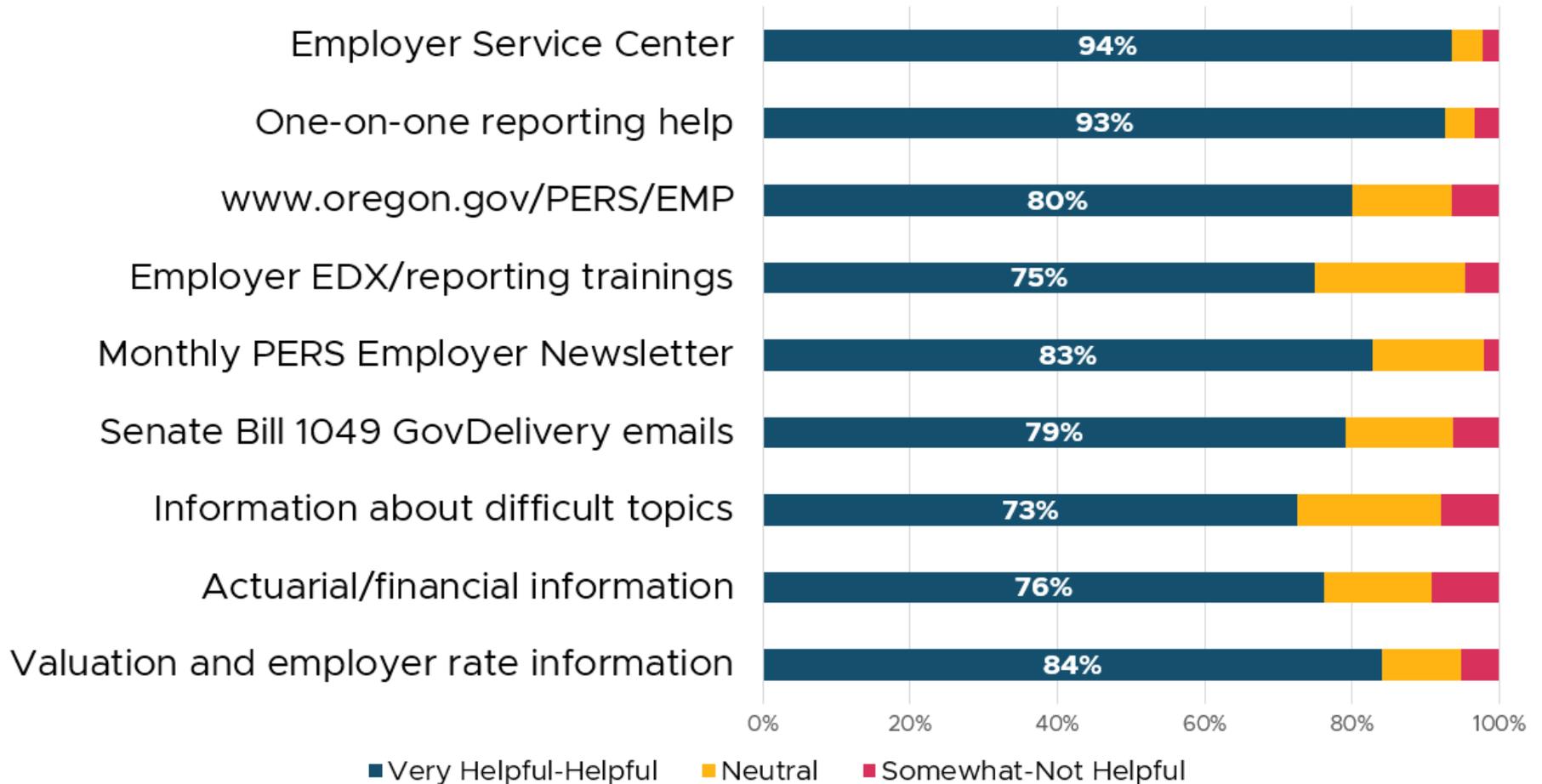
- Similar distribution to 2019 results

Employer satisfaction ratings 2017-20



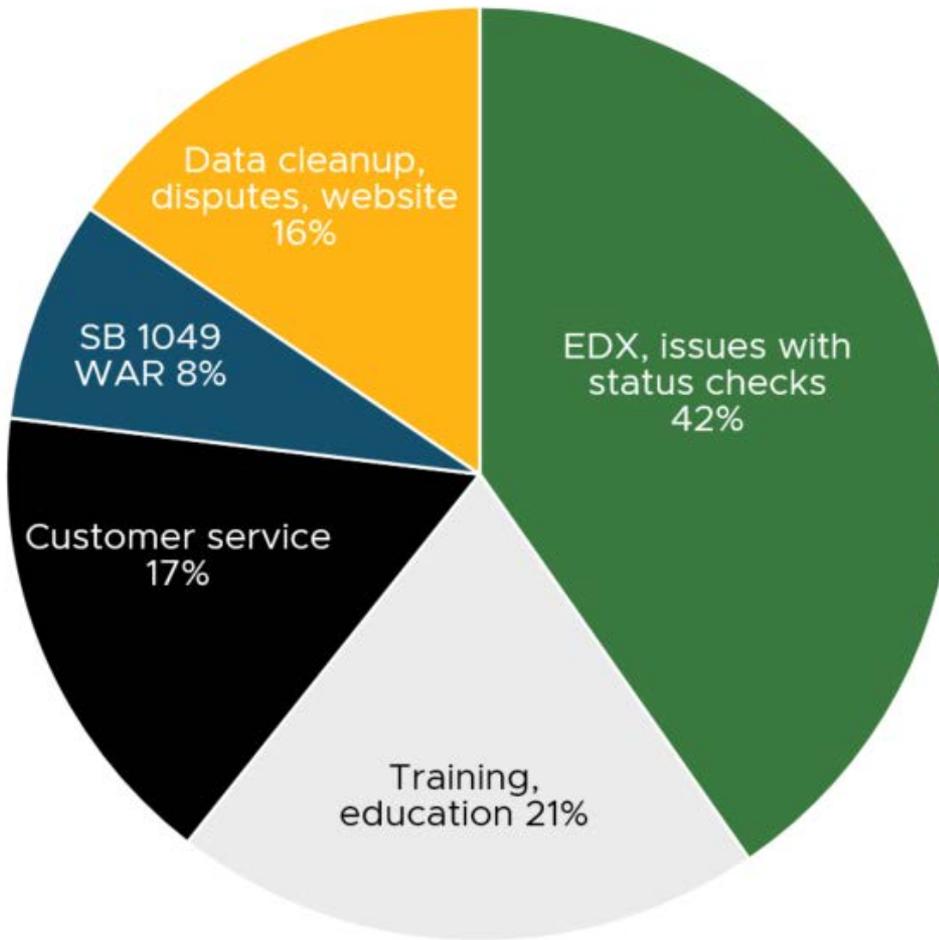
Employer resource ratings

How helpful are the following PERS employer resources?



N/A (I do not use this PERS employer resource) answers removed

Top employer comments: Payroll/EDX reporters



- Customer service comments were mostly positive
- Employers looking for more training, simpler information
- Challenges with known EDX issues, retiree (SB 1049 Work After Retirement) reporting

- Percentages rounded up

Top issues: Action steps

Website and employer information

- Website redesign plans for 2021
 - Improved navigation, including simplified information for HR reps and new PERS reporters
 - Better-organized actuarial/financial information and new content through UAL Resolution Program

The screenshot displays the Oregon PERS website interface for employers. At the top left is the Oregon PERS logo (PUBLIC EMPLOYEES RETIREMENT SYSTEM). The main header is 'Employers' with an 'EDX Login' button and a navigation menu including 'EDX Login', 'Password Reset', 'EDX Availability', 'Report EDX Problem', 'Contact ESC', 'Employer News', and 'EAG'. Below the header is a notice: 'Contact your Account Representative Monday-Friday, 8 a.m. - 5 p.m.' The main content area is divided into four columns: 'EDX' (Troubleshoot EDX Reports, Late Reporting Issues, Quick References, Automated Data Upload, Test Site/Instructions), 'Resources' (Find Your Account Representative, Employer Tools, Laws, Rules, & Policies, Training & Presentation Schedules, Oregon Savings Growth Plan (OSGP), Employer Participation, Forms, FAQs), 'Financials' (Understanding Your Statement, Contribution Rates, Actuarial & Financial Information for Employers, Employer Rate Projection Tool, Employer Rate Relief Programs), and 'Get Help' (Employer Appeal Rights, Publications, Coverage Changes, General Plan Information, More Help).

Top issues: Action steps

Senate Bill 1049 Work After Retirement

- October 2020 Work Package will provide wage codes and invoicing

PERS EMPLOYER NEWSLETTER July 2020

New EDX wage codes for rehired retirees coming this fall

This October, once we inform you, employers will begin using new wage codes to report hours worked by their employees who have already retired from PERS. The new codes, which will be available in EDX in late October, reflect changes to Work After Retirement rules established by [Senate Bill \(SB\) 1049](#). The new codes will be used to report salary and hours for service retirees with pay dates of January 1, 2020, and later.

Action you may need to take to prepare for the new wage codes

If you use an automated financial package to create .dat files for report uploads in EDX (or use a third-party reporter), you will need to begin to update your .dat file format this summer to be ready for the EDX update this fall.

For instructions, read the newly revised "[EDX File Format and Development Guide](#)" (page 25 contains the new wage codes — no other changes were made). You can also find this document from the PERS Employer website's [Quick References](#) and [Employer Publications](#) pages.



EDX File Format and Development Guide

June 15, 2020
Version 2.4

Top issues: Action steps

Training

- EDX tips of the month in the employer newsletter
- Increase communication through website, the employer newsletter, and GovDelivery, educating employers on what trainings are available and for whom they are designed

EDX tip of the month: How to do a status check

The Status Check Member Search screen allows you to view an employee's contribution status. This information helps you determine if PERS is expecting contributions for the employee or if you should contact PERS to discuss the employee's contribution status.

1. To access the screen, click on the Status Check link. (See *Figure 1* below.)
2. On the next screen, enter the member's name or Social Security number (SSN). (See *Figure 2* below.)
3. On the Status Check Member Search screen, check the Plan and Contribution Status columns to know if PERS is expecting contributions for that employee. (See *Figure 3* for examples of results.)

Figure 1

Site Navigation

[Employer Home](#)
[View Your Statement](#)
[Work on Reports](#)

Figure 2

Status Check Member Search

Search for a member to display their member contribution status.

Search for a Member

Enter Last Name: or SSN No:

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Thank you!

Questions?





Oregon

Kate Brown, Governor

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October 2, 2020

TO: Members of the PERS Board
FROM: Jake Winship, Associate Actuary
Kevin Olineck, Director
SUBJECT: Milliman Actuarial Contract Renewal

OVERVIEW

PERS' actuarial services contract with Milliman will terminate December 31, 2021, unless the PERS Board takes specific action to extend the contract. This contract took effect on January 1, 2015, and, after an initial four year period, was further extended for a two-year period that ends on December 31, 2021. The contract allows for an extension of additional two-year periods, for a total term not to exceed 10 years.

BACKGROUND

Milliman became the PERS Actuary, replacing Mercer, in January 2012, as a result of Mercer assigning their contractual obligation to Milliman. Mercer had decided that they would no longer provide services to public sector entities. Subsequently, Milliman was awarded the current contract, through a request for proposal (RFP) process.

RECOMMENDATION

Staff recommends that the PERS Board extend the Milliman contract for two additional two-year periods through to the end of the total maximum extension period, December 31, 2025. Staff makes this recommendation based on the following:

1. Milliman has performed more than adequately under the current contract.
2. Changing actuaries at this time would result in a significant disruption in PERS' ability to deliver critical and timely information to the PERS Board, Legislature, and other stakeholders. The learning curve required for a new actuarial firm may not allow for the same level of timeliness or accuracy that Milliman currently provides. This is particularly important, since SB 1049 implementation has significant agency impacts to actuarial services.

PERS has recently hired an Associate Actuary to head up the Actuarial Activities Section of PERS, however, a significant amount of the Associate Actuary's time will be spent building out the Unfunded Actuarial Liability Reporting Program (UALRP) component of SB 1049 and determining what the future operating model of that area should be. Consequently, PERS will

not have the requisite time or resources required to build out a fulsome consulting actuary RFP process in the next few years.

3. There is a scarcity of actuarial firms that: a) have the level of expertise required to properly support PERS, both the system and the agency, b) have a local presence, and c) have the corporate capacity to take on substantial Indemnification and Liability contractual obligations. Consequently, regardless of when the board decides to move forward with an RFP for actuarial services, that decision would need to be made a minimum of 12 to 15 months prior to the end of the term of the contract to allow for a comprehensive transition of information and data, should a new firm be chosen. We propose that an RFP be launched in 2024 in order to provide for a planned handover of actuarial services prior to January 1, 2026.

BOARD OPTIONS

The PERS Board may:

1. Pass a motion to extend the current actuarial services contract with Milliman to December 31, 2025; or
2. Direct staff to make changes to these terms or explore other options.

STAFF RECOMMENDATION

Staff recommends the PERS Board approve the contract renewal as presented in Option #1.



Adoption of 2021-2023 Employer Contribution Rates

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

Presented by:

Matt Larrabee, FSA, EA
Scott Preppernau, FSA, EA

October 2, 2020

This work product was prepared for discussion purposes only 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. Any recipient of this work product who desires professional guidance should engage qualified professionals for advice appropriate to its own specific needs.

Introduction

- At the July meeting we reviewed summary valuation results as of December 31, 2019 for:
 - Tier 1/Tier 2 & OPSRP retirement programs
 - Retiree Health Insurance Account (RHIA), and
 - Retiree Health Insurance Premium Account (RHIPA)
- In September we published our full detailed December 31, 2019 System-Wide Actuarial Valuation Report
- Based upon that valuation at today's meeting we are presenting 2021-2023 employer contribution rates for adoption by the PERS Board
- PERS staff will provide detailed reports for each employer

Valuation Process and Timeline

- Actuarial valuations are conducted annually
 - Alternate between “rate-setting” and “advisory” valuations
 - This valuation as of 12/31/2019 is rate-setting
- Board adopts contribution rates developed in rate-setting valuations, and those rates go into effect 18 months after the valuation date

Valuation Date	Employer Contribution Rates
12/31/2017	July 2019 – June 2021
12/31/2019	July 2021 – June 2023
12/31/2021	July 2023 – June 2025

This work product was prepared for discussion purposes only 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. Any recipient of this work product who desires professional guidance should engage qualified professionals for advice appropriate to its own specific needs.

Funded Status & Unfunded Actuarial Liability (UAL)

- Comparison of two most recent rate-setting valuations

Valuation Date	Excluding Side Accounts		Including Side Accounts	
	UAL	Funded Status	UAL	Funded Status
12/31/2017	\$ 22.3 B	73%	\$ 16.7 B	80%
12/31/2019	\$ 24.6 B	72%	\$ 19.1 B	79%

Summary of Valuation Results - Contributions

- Uncollared Total Base Rate decreased from 19-21 to 21-23
 - Primarily due to reamortization of Tier 1/Tier 2 UAL per Senate Bill 1049
- Collared Total Base Rate decreased for some rate pools, and increased for others
 - Increases tied to “collared off” rate increases deferred from the prior biennium
- SB 1049 introduced member redirect contributions, which partially offsets the “total rate” to arrive at the “employer rate”
 - As discussed in July, employer contribution rates presented for adoption today reflect system-average, tier-specific member redirect offset rates of:
 - **2.45%** of Tier 1/Tier 2 payroll
 - **0.70%** of OPSRP payroll
 - The rates above are 0.05% of payroll lower than the redirect rates noted in statute, reflecting the projected effect that contributions are not redirected for members with monthly pay below \$2,500 (indexed)

School District Weighted Total* Pension-Only Rates

2009-2011 rates set prior to economic downturn

2011-2013 rates first to reflect -27% return in 2008

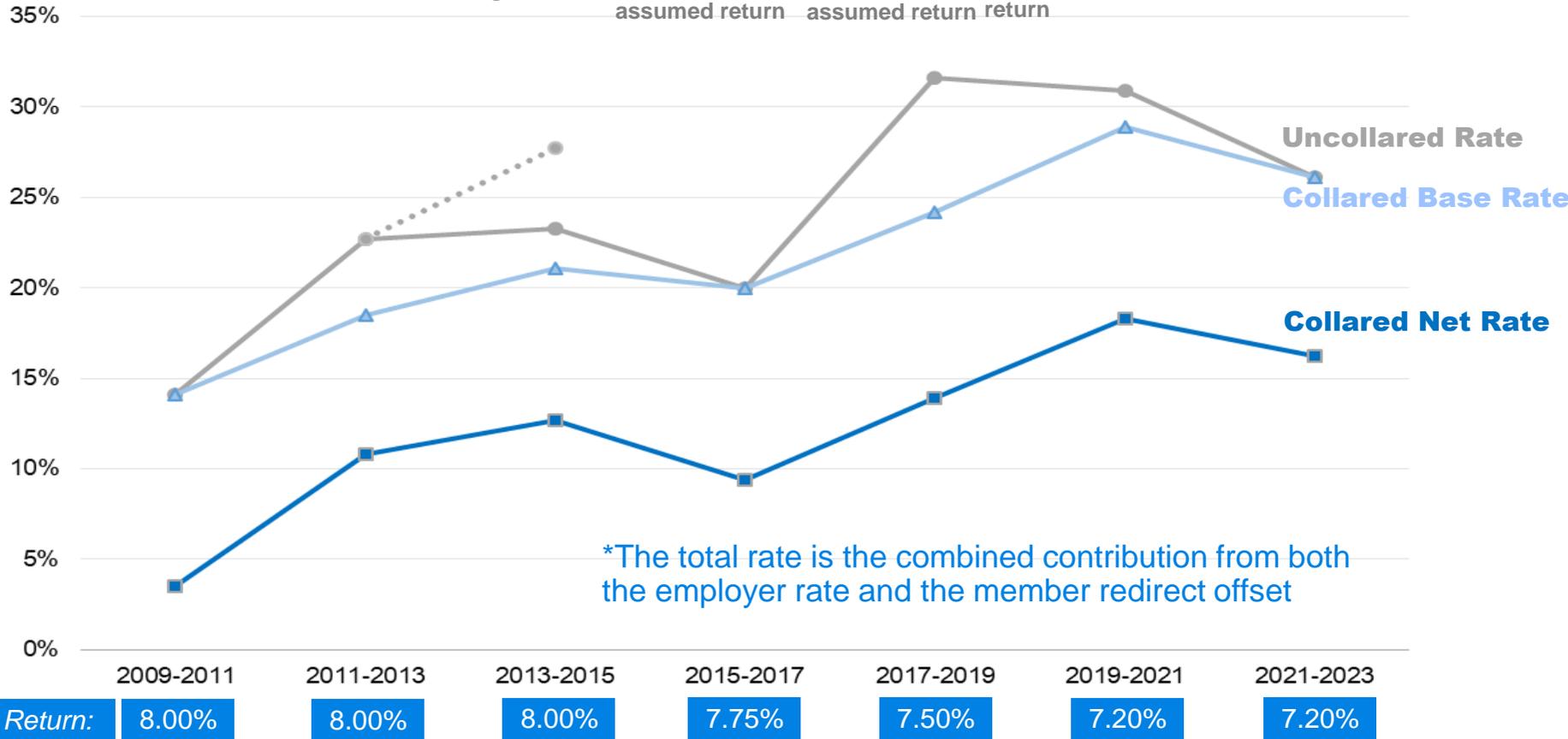
2013-2015 shown before (dotted line) and after (solid line) legislated changes

2015-2017 set pre-Moro reflecting 2012 (+14.3%) & 2013 (+15.6%) returns, first decrease in assumed return

2017-2019 set post-Moro, reflecting 2015 return (+2.1%) and second decrease in assumed return

2019-2021 reflects 2017 return (+15.4%) and third decrease in assumed return

2021-2023 reflects legislatively-mandated Tier 1/Tier 2 UAL reamortization; rates shown are total rates before reduction for effect of SB 1049 member redirect offset contributions.



SLGRP Weighted Total* Pension-Only rates

2009-2011 rates set prior to economic downturn

2011-2013 rates first to reflect -27% return in 2008

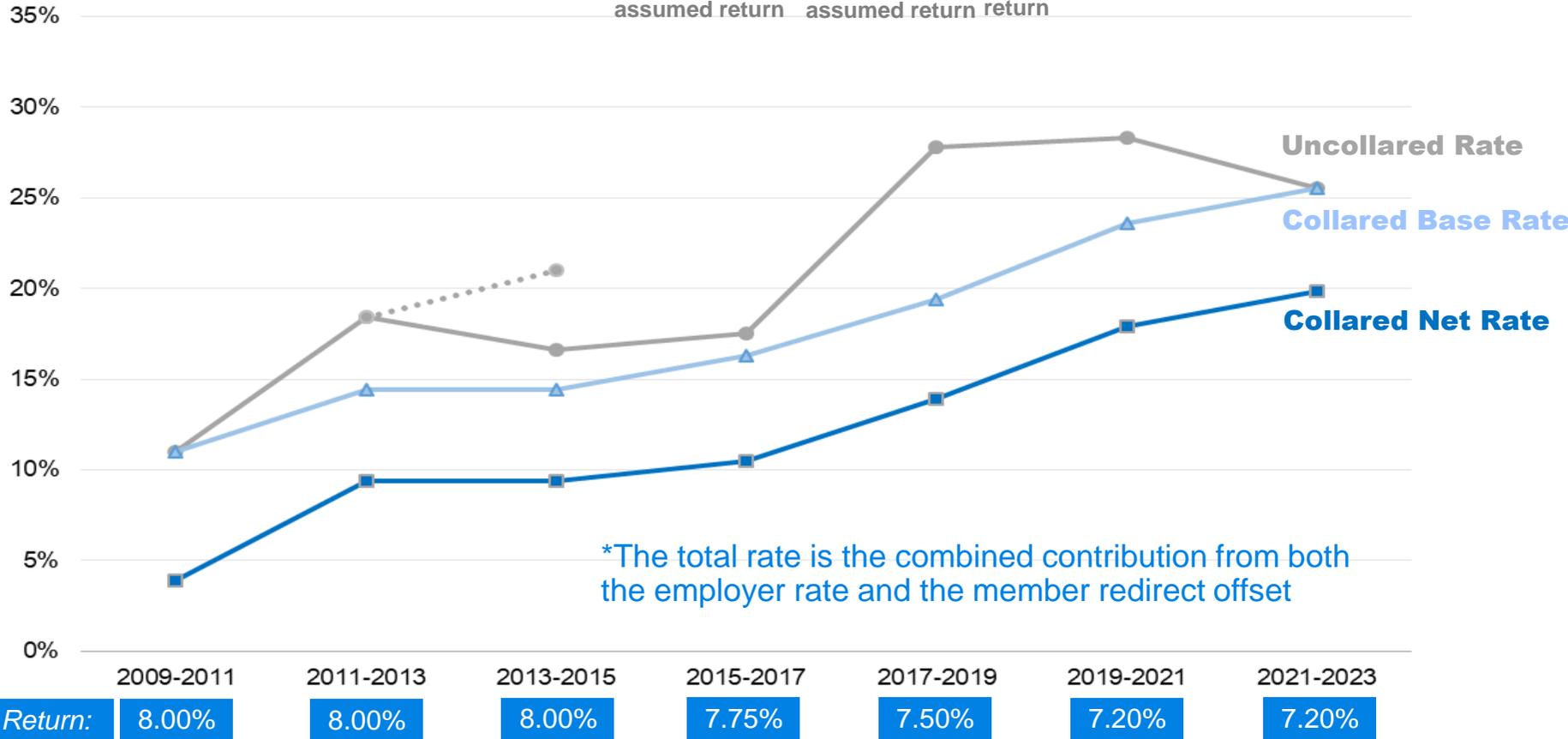
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2021-2023 reflects legislatively-mandated Tier 1/Tier 2 UAL reamortization; rates shown are total rates before reduction for effect of SB 1049 member redirect offset contributions.



System-average Weighted Total* Pension-Only rates

2009-2011 rates set prior to economic downturn

2011-2013 rates first to reflect -27% return in 2008

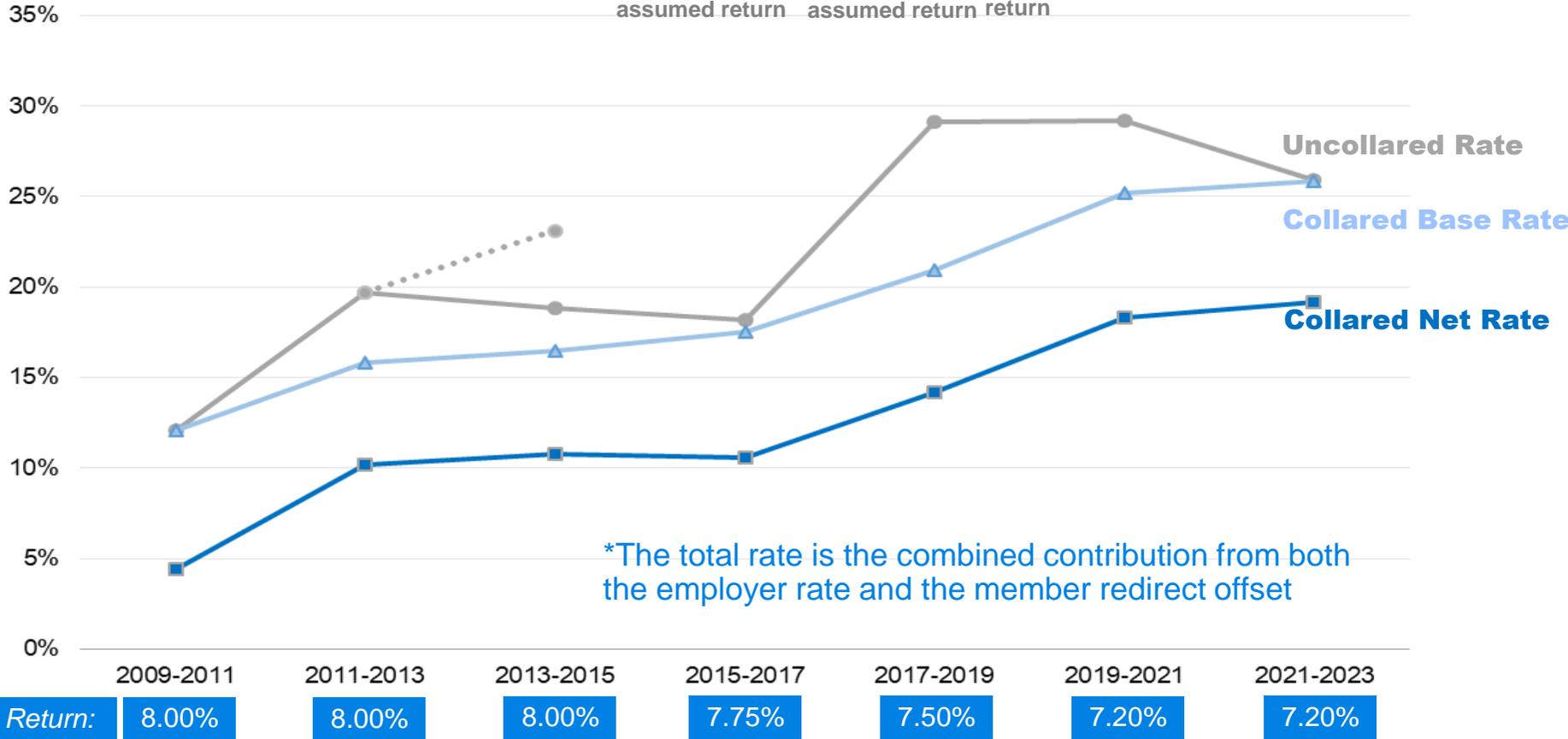
2013-2015 shown before (dotted line) and after (solid line) legislated changes

2015-2017 set pre-Moro reflecting 2012 (+14.3%) & 2013 (+15.6%) returns, first decrease in assumed return

2017-2019 set post-Moro, reflecting 2015 return (+2.1%) and second decrease in assumed return

2019-2021 reflects 2017 return (+15.4%) and third decrease in assumed return

2021-2023 reflects legislatively-mandated Tier 1/Tier 2 UAL reamortization; rates shown are total rates before reduction for effect of SB 1049 member redirect offset contributions.



Individual Employer Rates

- Employers pay separate rates on different payrolls:
 - Tier 1/Tier 2 payroll
 - Some SLGRP employers can pay distinct General Service and Police & Fire rates on their Tier 1/Tier 2 payroll
 - OPSRP General Service payroll
 - OPSRP Police & Fire payroll
- Individual rates (and accompanying detailed reports) provided for about 600 employers
 - 361 SLGRP employers
 - 129 Independent employers
 - 109 School District employers with side accounts
 - An additional 188 School District employers without a side account all receive an identical report
- Detail for State Agencies shown on following slides
 - Note that side accounts specific to individual state agencies are reflected separately

Individual Employer Rates

- From the employer rate listing provided in today’s meeting materials
- “State Agencies” in this context includes: the agencies of state government, semi-independent agencies, boards, commissions, public universities and public corporations

Summary of PERS Employer Contribution Rates

Rates shown reflect the effect of side account rate offsets and retiree healthcare contributions, and exclude contributions to the IAP and debt service for pension obligation bonds.

Employer Number	Employer Name	Net Employer Contribution Rate 7/1/19 - 6/30/21			Net Employer Contribution Rate 7/1/21 - 6/30/23		
		Tier 1/ Tier 2 Payroll	OPSRP General Service Payroll	OPSRP Police and Fire Payroll	Tier 1/ Tier 2 Payroll (reflects 2.45% member redirect offset)	OPSRP General Service Payroll (reflects 0.70% member redirect offset)	OPSRP Police and Fire Payroll
State (excluding Agency specific side accounts)							
1000	State Agencies	22.24%	14.75%	19.38%	22.38%	17.29%	21.65%

Individual Employer Rates

- From the detailed report PERS will provide to each employer:

Employer Rates Effective July 1, 2021 for State Agencies

	Payroll				
	Tier 1/Tier 2			OPSRP	
	Default	Optional Separate Rates		General Service	Police & Fire
	All T1/T2 Payroll	General Service	Police & Fire		
Pension					
Normal cost rate	15.32%	14.30%	20.29%	8.64%	13.00%
Tier 1/Tier 2 UAL rate ¹	12.60%	12.60%	12.60%	12.60%	12.60%
OPSRP UAL rate	1.69%	1.69%	1.69%	1.69%	1.69%
Pre-SLGRP pooled liability rate	1.52%	1.52%	1.52%	1.52%	1.52%
Transition liability/(surplus) rate ²	0.00%	0.00%	0.00%	0.00%	0.00%
Side account rate relief ²	(6.63%)	(6.63%)	(6.63%)	(6.63%)	(6.63%)
Member redirect offset ³	(2.45%)	(2.45%)	(2.45%)	(0.70%)	(0.70%)
Net employer pension contribution rate	22.05%	21.03%	27.02%	17.12%	21.48%
Retiree Healthcare					
Normal cost rate	0.16%	0.16%	0.16%	0.00%	0.00%
UAL rate	0.17%	0.17%	0.17%	0.17%	0.17%
Net retiree healthcare rate	0.33%	0.33%	0.33%	0.17%	0.17%
Total net employer contribution rate	22.38%	21.36%	27.35%	17.29%	21.65%
<i>Total net rate effective July 1, 2019:</i>	<i>22.24%</i>			<i>14.75%</i>	<i>19.38%</i>

This work product was prepared for discussion purposes only 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. Any recipient of this work product who desires professional guidance should engage qualified professionals for advice appropriate to its own specific needs.

Individual Employer Pension Rates

- Focusing on just the Net Employer Pension Rates circled in green from the prior slide, we can illustrate the weighted average rate calculation for State Agencies, reflecting estimated 2021-23 biennium payroll

State Agencies	Tier 1 / Tier 2	OPSRP General Service	OPSRP Police & Fire	Total
Projected 2021-23 Biennium Payroll (\$ millions)	\$1,950	\$4,760	\$690	\$7,400
2021-23 net employer pension contribution rates	22.05%	17.12%	21.48%	18.85%*
Contribution for weighting	\$430	\$815	\$150	\$1,395

* Weighted average: $\$1,395 / \$7,400 = 18.85\%$

- Projected 2021-2023 payroll is based on State Agencies payroll from this valuation increased with the 3.50% annual payroll growth assumption

Wrap Up / Next Steps

- Adoption of employer-specific rates for 2021-23 biennium
- PERS to distribute detailed valuation reports to employers
- In December, we will present contribution rate and funded status projections
 - Focus on system-average results
 - Will use the latest year-to-date investment return information at the time the projections are made
 - Projections will be developed using two types of models
 - Steady return
 - Variable return



Appendix

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Certification

This presentation summarizes key preliminary results of an actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2019, for the Plan Year ending December 31, 2019. The results are high-level in nature and may not be relied upon to, for example, prepare the System’s Consolidated Annual Financial Report (CAFR). The full development of detailed results is shown in the formal December 31, 2019 System-Wide Actuarial Valuation Report.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the System’s staff. This information includes, but is not limited to, statutory provisions, employee 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 our best estimate of anticipated experience affecting the System.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan 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 plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. Our annual financial modeling presentation to the PERS Board should be referenced for additional analysis of the potential variation in future measurements. Our December 31, 2019 Actuarial Valuation Report provides additional discussion of the System’s risks. The PERS Board has the final decision regarding the appropriateness of the assumptions.

Actuarial computations presented in this report are for purposes determining the recommended funding amounts for the System. The computations prepared for other 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 plan provisions described in the appendix of this report. 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.

This work product was prepared for discussion purposes only 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. Any recipient of this work product who desires professional guidance should engage qualified professionals for advice appropriate to its own specific needs.

Certification

Milliman's work is prepared solely for the internal business use of the Oregon Public Employees Retirement System. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to 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 its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exception(s):

- (a) The System may provide a copy of Milliman's work, in its entirety, to the System's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the System.
- (b) The System may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third party recipient of Milliman's work product should rely upon Milliman's work product. 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 actuaries are independent of the plan sponsors. 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 claims costs and healthcare trend (cost inflation) rates for the retiree healthcare program discussed in this report were determined by Milliman actuaries qualified in such matters.

Data Exhibits

	December 31, 2019			December 31, 2018	
	Tier 1	Tier 2	OPSRP	Total	Total
Active Members					
Count	17,317	32,191	131,249	180,757	176,763
Average age	56.9	52.2	43.0	46.0	46.1
Average total service	26.5	18.8	6.7	10.7	10.9
Average prior year covered salary	\$84,259	\$76,946	\$55,279	\$61,914	\$59,632
Inactive Members¹					
Count	11,237	14,189	21,366	46,792	45,945
Average age	60.8	54.7	47.8	53.0	53.1
Average monthly deferred benefit	\$2,192	\$833	\$439	\$980	\$983
Retired Members and Beneficiaries¹					
Count	129,711	16,718	6,549	152,978	148,893
Average age	73.0	68.2	67.6	72.2	72.0
Average monthly benefit	\$2,995	\$1,138	\$550	\$2,687	\$2,634
Total Members	158,265	63,098	159,164	380,527	371,601

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

Retirement System Risks

- Oregon PERS, like all defined benefit plans, is subject to various risks that will affect future plan liabilities and contribution requirements, including:
 - **Investment risk:** the potential that investment returns will be different than expected
 - **Demographic risks:** the potential that mortality experience, retirement behavior, or other demographic experience for the plan population will be different than expected
 - **Contribution risk:** the potential that actual future contributions will be materially different than expected, for example if there are material changes in the System's covered payroll
- The results of an actuarial valuation are based on one set of reasonable assumptions, but it is almost certain that future experience will not exactly match the assumptions.
- Further discussion of plan risks and historical information regarding plan experience are shown in our annual actuarial valuations. In addition, our annual financial modeling presentation to the PERS Board illustrates future outcomes under a wide range of future scenarios reflecting variation in key risk factors.

Actuarial Basis

Data

We have based our calculation of the liabilities on the data supplied by the Oregon Public Employees Retirement System and summarized in the data exhibits on the preceding slides.

Assets as of December 31, 2019, were based on values provided by Oregon PERS reflecting the Board's earnings crediting decisions for 2019.

Methods / Policies

Actuarial Cost Method: Entry Age Normal, adopted effective December 31, 2012.

UAL Amortization: The UAL for OPSRP, and Retiree Health Care as of December 31, 2007 are amortized as a level percentage of combined valuation payroll over a closed 16 year period for OPSRP and a closed 10 year period for Retiree Health Care. For the Tier 1/Tier 2 UAL, the amortization period was reset at 20 years as of December 31, 2013. Senate Bill 1049 was signed into law in June 2019 and requires a one-time re-amortization of Tier 1/Tier 2 UAL over a closed 22 year period at the December 31, 2019 rate-setting valuation which will set actuarially determined contribution rates for the 2021-2023 biennium. Gains and losses between subsequent odd-year valuations are amortized as a level percentage of combined valuation payroll over the amortization period (20 years for Tier 1/Tier 2, 16 years for OPSRP, 10 years for Retiree Health Care) from the odd-year valuation in which they are first recognized.

Actuarial Basis

Methods / Policies (cont'd)

Contribution rate stabilization method: Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts, OPSRP) are confined to a collar based on the prior contribution rate (prior to application of side accounts, pre-SLGRP liabilities, and 6 percent Independent Employer minimum). The new contribution rate will generally not increase or decrease from the prior contribution rate by more than the greater of 3 percentage points or 20 percent of the prior contribution rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funded percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.

Expenses: Tier 1/Tier 2 administration expenses are assumed to be equal to \$32.5M, while OPSRP administration expenses are assumed to be equal to \$8.0M. The assumed expenses are added to the respective normal costs.

Actuarial Value of Assets: Equal to Market Value of Assets excluding Contingency and Tier 1 Rate Guarantee Reserves. The Tier 1 Rate Guarantee Reserve is not excluded from assets if it is negative (i.e. in deficit status).

Assumptions

Assumptions for valuation calculations are as described in the 2018 Experience Study for Oregon PERS and in the December 31, 2019 Actuarial Valuation Report. The assumptions were presented to the PERS Board in July 2019 and formally adopted in October 2019.

Provisions

Provisions valued are as detailed in the December 31, 2019 Actuarial Valuation Report.

Summary of PERS Employer Contribution Rates

Rates shown reflect the effect of side account rate offsets and retiree healthcare contributions,
and exclude contributions to the IAP and debt service for pension obligation bonds.

Employer Number	Employer Name	Net Employer Contribution Rate 7/1/19 - 6/30/21			Net Employer Contribution Rate 7/1/21 - 6/30/23		
		Tier 1/ Payroll	Tier 2 Payroll	OPSRP General Service Payroll	OPSRP Police and Fire Payroll	Tier 1/ Payroll (reflects 2.45% member redirect offset)	Tier 2 Payroll
Independent Employers							
City							
2167	City of Athena	13.89%	12.38%	17.01%	14.67%	14.75%	19.11%
2106	City of Beaverton	21.45%	12.45%	17.08%	24.42%	17.79%	22.15%
2107	City of Bend	24.22%	15.54%	20.17%	21.52%	14.71%	19.07%
2149	City of Canyonville	20.88%	14.84%	19.47%	20.29%	16.77%	21.13%
2186	City of Chiloquin	15.51%	7.28%	11.91%	11.56%	5.24%	9.60%
2162	City of Clatskanie	23.41%	15.96%	20.59%	27.32%	16.46%	20.82%
2152	City of Coos Bay	24.50%	13.41%	18.04%	26.88%	16.75%	21.11%
2165	City of Cornelius	19.16%	12.95%	17.58%	20.47%	15.83%	20.19%
2127	City of Cottage Grove	25.27%	13.87%	18.50%	27.80%	20.51%	24.87%
2257	City of Culver	28.12%	23.67%	28.30%	35.31%	30.26%	34.62%
2262	City of Dufur	23.61%	15.03%	19.66%	27.14%	20.61%	24.97%
2282	City of Eagle Point	22.91%	13.10%	17.73%	27.11%	18.80%	23.16%
2111	City of Eugene	25.07%	16.23%	20.86%	27.56%	21.10%	25.46%
2112	City Of Forest Grove	18.69%	10.27%	14.90%	15.90%	10.15%	14.51%
2248	City of Fossil	15.92%	0.00%	1.74%	16.70%	10.17%	14.53%
2309	City of Gearhart	19.22%	9.43%	14.06%	20.54%	12.91%	17.27%
2264	City of Gervais	17.88%	13.79%	18.42%	16.65%	17.99%	22.35%
2250	City of Gold Beach	18.93%	11.62%	16.25%	16.13%	10.47%	14.83%
2114	City of Gresham	18.66%	8.29%	12.92%	23.21%	15.30%	19.66%
2210	City of Helix	15.86%	7.28%	11.91%	16.64%	10.11%	14.47%
2115	City of Hillsboro	22.95%	14.99%	19.62%	23.46%	17.45%	21.81%
2222	City of Jacksonville	21.86%	12.34%	16.97%	24.93%	19.50%	23.86%
2232	City of Joseph	24.91%	16.33%	20.96%	21.02%	14.49%	18.85%
2279	City of Keizer	20.65%	9.49%	14.12%	24.18%	15.04%	19.40%
2283	City of Maupin	15.97%	6.76%	11.39%	17.65%	10.64%	15.00%
2246	City of Merrill	12.98%	0.00%	4.33%	13.76%	2.34%	6.70%
2195	City of Metolius	7.45%	0.00%	0.00%	5.24%	0.00%	0.00%
2290	City of Molalla	17.33%	10.94%	15.57%	16.21%	11.97%	16.33%
2174	City of Mt Angel	17.05%	10.33%	14.96%	17.94%	9.03%	13.39%
2118	City of Ontario	32.82%	22.60%	27.23%	35.65%	26.32%	30.68%
2218	City of Prairie City	16.23%	14.81%	19.44%	18.51%	18.62%	22.98%
2146	City of Prineville	13.27%	5.62%	10.25%	17.46%	12.43%	16.79%
2297	City of Rainier	19.22%	8.75%	13.38%	20.54%	13.64%	18.00%
2101	City of Salem	25.49%	16.41%	21.04%	24.21%	17.40%	21.76%
2219	City of Sheridan	17.90%	13.52%	18.15%	18.96%	15.84%	20.20%
2213	City of Stanfield	10.01%	0.00%	0.00%	10.79%	0.94%	5.30%
2129	City of Sweet Home	12.98%	3.36%	7.99%	13.76%	5.66%	10.02%

Summary of PERS Employer Contribution Rates

Rates shown reflect the effect of side account rate offsets and retiree healthcare contributions,
and exclude contributions to the IAP and debt service for pension obligation bonds.

Employer Number	Employer Name	Net Employer Contribution Rate 7/1/19 - 6/30/21			Net Employer Contribution Rate 7/1/21 - 6/30/23		
		Tier 1/ Tier 2 Payroll	OPSRP General Service Payroll	OPSRP Police and Fire Payroll	Tier 1/ Tier 2 Payroll (reflects 2.45% member redirect offset)	OPSRP General Service Payroll (reflects 0.70% member redirect offset)	OPSRP Police and Fire Payroll
Independent Employers							
City							
2261	City of Waldport	15.20%	7.83%	12.46%	15.98%	10.53%	14.89%
2189	City of Willamina	7.45%	0.00%	3.24%	5.24%	1.05%	5.41%
2253	Town of Butte Falls	15.92%	8.58%	13.21%	16.70%	10.17%	14.53%
County							
2001	Clackamas County	27.07%	19.22%	23.85%	26.81%	21.26%	25.62%
2002	Curry County	26.06%	15.46%	20.09%	28.75%	21.66%	26.02%
2003	Douglas County	38.00%	27.86%	32.49%	43.08%	35.68%	40.04%
2006	Jefferson County	21.97%	12.20%	16.83%	20.10%	13.61%	17.97%
2008	Lane County	21.87%	14.22%	18.85%	23.72%	18.09%	22.45%
2014	Linn County	27.17%	18.55%	23.18%	29.86%	23.43%	27.79%
2039	Malheur County	20.90%	12.90%	17.53%	22.17%	16.33%	20.69%
2037	Polk County	24.54%	16.76%	21.39%	26.31%	20.83%	25.19%
2050	Wallowa County	14.03%	0.00%	0.75%	14.81%	0.00%	1.88%
2015	Yamhill County	19.22%	10.98%	15.61%	20.22%	14.11%	18.47%
Special Districts							
2664	Applegate Valley Rural Fire Protection District #9	20.70%	10.76%	15.39%	26.16%	14.42%	18.78%
2702	Banks Fire District #13	27.02%	13.83%	18.46%	26.54%	15.32%	19.68%
2596	Bend Parks & Recreation	18.82%	13.75%	18.38%	18.10%	14.92%	19.28%
2648	Black Butte Ranch Rural Fire Protection District	16.13%	2.53%	7.16%	17.36%	10.83%	15.19%
2833	Boardman Rural Fire Protection District	23.91%	11.09%	15.72%	17.21%	10.68%	15.04%
2779	Brownsville Rural Fire Protection District	19.11%	7.33%	11.96%	20.41%	10.90%	15.26%
2890	Central Cascades Fire & EMS	N/A	N/A	N/A	16.30%	9.77%	14.13%
2678	Central Oregon Regional Housing Authority	15.49%	12.70%	17.33%	14.92%	13.95%	18.31%
2645	Chiloquin Agency Lake Rural Fire Protection District	22.40%	13.82%	18.45%	26.51%	16.19%	20.55%
2693	City-County Insurance Services	15.94%	11.43%	16.06%	15.30%	13.14%	17.50%
2518	Clackamas County Housing Authority	25.27%	17.75%	22.38%	22.24%	17.54%	21.90%
2870	Clackamas River Water Providers	12.50%	12.13%	16.76%	11.12%	12.44%	16.80%
2679	Columbia River Public Utility District	20.78%	16.53%	21.16%	26.26%	23.54%	27.90%
2828	Deschutes Public Library District	19.39%	14.29%	18.92%	17.72%	14.48%	18.84%
2527	Deschutes Valley Water District	19.47%	14.17%	18.80%	20.76%	16.82%	21.18%
2729	Douglas County Fire District #2	44.82%	32.41%	37.04%	59.92%	49.78%	54.14%
2743	Douglas Soil & Water Conservation District	8.45%	0.00%	0.75%	10.43%	0.00%	0.83%
2529	East Fork Irrigation District	16.80%	2.81%	7.44%	17.64%	3.84%	8.20%
2618	Estacada Cemetery District	7.45%	0.00%	0.00%	5.24%	0.00%	0.00%
2623	Evans Valley Fire District #6	11.44%	0.00%	3.13%	12.22%	5.69%	10.05%
2785	Fern Ridge Community Library	13.69%	2.01%	6.64%	14.47%	7.94%	12.30%
2608	Gaston Rural Fire Protection District	16.73%	8.15%	12.78%	20.59%	14.06%	18.42%

Summary of PERS Employer Contribution Rates

Rates shown reflect the effect of side account rate offsets and retiree healthcare contributions,
and exclude contributions to the IAP and debt service for pension obligation bonds.

Employer Number	Employer Name	Net Employer Contribution Rate 7/1/19 - 6/30/21			Net Employer Contribution Rate 7/1/21 - 6/30/23		
		Tier 1/ Payroll	Tier 2 Payroll	OPSRP General Service Payroll	OPSRP Police and Fire Payroll	Tier 1/ Payroll (reflects 2.45% member redirect offset)	Tier 2 Payroll
Independent Employers							
Special Districts							
2891	Grant County Emergency Communications Agency	N/A	N/A	N/A	10.73%	10.01%	14.37%
2894	Greater Toledo Pool Recreation District	N/A	N/A	N/A	16.30%	9.77%	14.13%
2698	Halsey Shedd Rural Fire Protection District	16.49%	10.12%	14.75%	19.97%	15.15%	19.51%
2771	Harbor Water PUD	16.55%	5.50%	10.13%	18.85%	14.12%	18.48%
2717	Ice Fountain Water District	19.22%	12.83%	17.46%	18.32%	14.00%	18.36%
2556	Jackson County Fire District #5	32.25%	19.23%	23.86%	40.42%	30.55%	34.91%
2575	Jefferson County Rural Fire Protection District #1	20.78%	13.34%	17.97%	20.67%	14.94%	19.30%
2841	Jefferson County Soil & Water Conservation District	14.01%	11.52%	16.15%	12.35%	11.59%	15.95%
2809	Juntura Road District #4	N/A	N/A	N/A	21.44%	14.91%	19.27%
2646	Keno Rural Fire Protection District	N/A	N/A	N/A	78.37%	71.84%	76.20%
2515	Klamath County Fire District #1	34.78%	23.01%	27.64%	44.73%	35.45%	39.81%
2760	Knappa Svensen Burnside Rural Fire Protection District	N/A	N/A	N/A	23.59%	23.11%	27.47%
2881	Lake Chinook Fire and Rescue District	18.58%	10.00%	14.63%	16.29%	9.76%	14.12%
2644	Lakeside Water District	16.41%	12.90%	17.53%	12.56%	10.90%	15.26%
2521	League of Oregon Cities	25.16%	22.19%	26.82%	25.87%	24.41%	28.77%
2597	Mapleton Water District	18.12%	9.41%	14.04%	12.78%	6.79%	11.15%
2877	Mid-Columbia Fire And Rescue V1-801	19.98%	10.20%	14.83%	16.94%	10.41%	14.77%
2889	Mid-valley Behavioral Care Network	N/A	N/A	N/A	17.21%	9.87%	14.23%
2782	Millington Rural Fire Protection District	12.98%	0.00%	2.29%	16.76%	10.23%	14.59%
2861	Mt Angel Fire District	19.68%	8.51%	13.14%	20.28%	10.50%	14.86%
2724	Nehalem Bay Wastewater Agency	15.92%	7.67%	12.30%	16.70%	10.91%	15.27%
2740	Neskowin Regional Sanitary Authority	11.97%	6.05%	10.68%	5.24%	0.00%	2.88%
2835	North Clackamas County Water Commission	20.14%	13.26%	17.89%	23.02%	18.96%	23.32%
2637	Northeast Oregon Housing Authority	17.08%	7.21%	11.84%	18.59%	13.12%	17.48%
2550	Nyssa Road Assessment District #2	29.33%	18.42%	23.05%	34.28%	30.86%	35.22%
2685	Oregon Community College Association	12.67%	8.61%	13.24%	13.45%	5.17%	9.53%
2876	Oregon Municipal Electric Utilities Association	14.72%	6.14%	10.77%	15.50%	8.97%	13.33%
2533	Owyhee Irrigation District	31.91%	23.94%	28.57%	28.70%	22.78%	27.14%
2688	Polk County Fire District #1	26.42%	15.24%	19.87%	25.76%	16.50%	20.86%
2613	Polk Soil & Water Conservation District	20.77%	13.14%	17.77%	14.70%	13.55%	17.91%
2507	Port of Astoria	15.70%	12.83%	17.46%	13.36%	11.64%	16.00%
2633	Port of Cascade Locks	13.26%	7.44%	12.07%	14.04%	10.43%	14.79%
2570	Port of Columbia County	11.34%	8.38%	13.01%	12.12%	5.59%	9.95%
2788	Port of Hood River	19.13%	14.02%	18.65%	19.55%	15.72%	20.08%
2581	Port of Umatilla	25.93%	9.10%	13.73%	28.59%	18.84%	23.20%
2689	Redmond Area Park & Recreation District	16.33%	11.27%	15.90%	14.80%	11.48%	15.84%
2672	Rockwood Water PUD	22.65%	16.76%	21.39%	24.65%	20.50%	24.86%

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Independent Employers							
Special Districts							
2747	Salem Housing Authority	23.83%	19.02%	23.65%	26.52%	23.53%	27.89%
2675	Salmon Harbor-Douglas County	15.92%	12.87%	17.50%	16.10%	14.89%	19.25%
2885	Siletz Rural Fire Protection District	18.58%	10.00%	14.63%	16.24%	9.71%	14.07%
2859	South Lane County Fire and Rescue	35.45%	23.46%	28.09%	32.51%	21.93%	26.29%
2845	Sunrise Water Authority	20.34%	17.91%	22.54%	9.49%	8.20%	12.56%
2643	Sweet Home Cemetery	20.65%	11.88%	16.51%	17.45%	9.96%	14.32%
2722	Tillamook 9-1-1	12.98%	7.42%	12.05%	13.76%	11.57%	15.93%
2821	Tillamook County Soil And Water Conservation District	19.85%	14.49%	19.12%	15.26%	13.72%	18.08%
2783	Tillamook Fire District	20.52%	7.62%	12.25%	22.10%	14.62%	18.98%
2865	Tri-County Cooperative Weed Management Area	18.98%	10.40%	15.03%	17.26%	10.73%	15.09%
2610	Turner Fire District	22.47%	5.84%	10.47%	28.63%	0.00%	0.00%
2887	Umatilla County Fire District #1	30.73%	19.88%	24.51%	27.37%	17.31%	21.67%
2874	Umatilla-Morrow Radio and Data District	13.70%	10.92%	15.55%	12.47%	11.16%	15.52%
2536	Valley View Cemetery	7.45%	0.00%	0.00%	5.24%	0.00%	0.00%
2797	Vernonia Fire	12.02%	8.98%	13.61%	5.87%	3.51%	7.87%
2796	West Side Rural Fire Protection District	10.27%	1.69%	6.32%	10.48%	3.95%	8.31%
2725	West Valley Fire District	21.86%	10.04%	14.67%	21.66%	15.13%	19.49%
2714	Winchester Bay Sanitary District	20.93%	13.27%	17.90%	21.45%	16.49%	20.85%
2878	Yamhill Fire Protection District	15.00%	11.11%	15.74%	11.97%	9.81%	14.17%

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Employer Number	Employer Name						
Judiciary - member redirect offset does not apply							
2099	State Judiciary	20.92%	N/A	N/A	24.89%	N/A	N/A

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School Districts							
School							
4404	Alliance Charter Academy	30.59%	25.14%	29.77%	25.44%	22.33%	26.69%
4306	Amity School District	8.29%	2.84%	7.47%	2.19%	0.00%	3.44%
3003	Baker School District #5J	20.04%	14.59%	19.22%	16.84%	13.73%	18.09%
4035	Banks School District	26.91%	21.46%	26.09%	21.96%	18.85%	23.21%
4062	Beaverton School District	22.86%	17.41%	22.04%	18.20%	15.09%	19.45%
3291	Bend-La Pine Public Schools	22.76%	17.31%	21.94%	18.19%	15.08%	19.44%
3283	Brookings-Harbor School District #17C	14.83%	9.38%	14.01%	9.95%	6.84%	11.20%
3320	Camas Valley School District #21	32.03%	26.58%	31.21%	24.81%	21.70%	26.06%
4333	Canby School District	11.46%	6.01%	10.64%	8.04%	4.93%	9.29%
4334	Cascade School District #5	14.33%	8.88%	13.51%	11.59%	8.48%	12.84%
3859	Central School District #13J	17.27%	11.82%	16.45%	13.67%	10.56%	14.92%
4259	Clackamas Education Service District	18.99%	13.54%	18.17%	15.42%	12.31%	16.67%
3179	Clatsop County School District #1C	6.11%	0.66%	5.29%	0.05%	0.00%	0.94%
3242	Coos Bay School District #9	24.86%	19.41%	24.04%	19.92%	16.81%	21.17%
3039	Corvallis School District #509J	18.77%	13.32%	17.95%	15.26%	12.15%	16.51%
3502	Creswell School District #40	26.82%	21.37%	26.00%	22.17%	19.06%	23.42%
3274	Crook County School District	9.57%	4.12%	8.75%	5.65%	2.54%	6.90%
3843	David Douglas School District	28.45%	23.00%	27.63%	23.36%	20.25%	24.61%
4291	Dayton Public Schools	7.89%	2.44%	7.07%	7.51%	4.40%	8.76%
4237	Douglas Education Service District	27.16%	21.71%	26.34%	22.48%	19.37%	23.73%
4012	Dufur Schools	31.58%	26.13%	30.76%	26.42%	23.31%	27.67%
3927	Echo School District	21.42%	15.97%	20.60%	16.65%	13.54%	17.90%
4323	Estacada School District #108	18.48%	13.03%	17.66%	14.29%	11.18%	15.54%
3473	Eugene School District 4J	26.16%	20.71%	25.34%	21.27%	18.16%	22.52%
3887	Falls City School District	9.48%	4.03%	8.66%	9.04%	5.93%	10.29%
3494	Fern Ridge School District	18.14%	12.69%	17.32%	13.90%	10.79%	15.15%
4405	Forest Grove Community School	32.03%	26.58%	31.21%	26.21%	23.10%	27.46%
4313	Forest Grove School District	24.20%	18.75%	23.38%	19.01%	15.90%	20.26%
4034	Gaston Public Schools	15.48%	10.03%	14.66%	7.39%	4.28%	8.64%
4329	Gervais School District #1	7.87%	2.42%	7.05%	3.12%	0.01%	4.37%
3160	Gladstone School District #115	7.82%	2.37%	7.00%	0.05%	0.00%	0.64%
3316	Glide School District #12	20.46%	15.01%	19.64%	17.00%	13.89%	18.25%
4260	Greater Albany School District #8J	23.14%	17.69%	22.32%	18.67%	15.56%	19.92%
4332	Gresham-Barlow School District #10	17.89%	12.44%	17.07%	12.93%	9.82%	14.18%
4326	Harney County School District #3	0.06%	0.00%	0.00%	0.05%	0.00%	0.00%
4258	Hermiston School District #8R	22.06%	16.61%	21.24%	17.98%	14.87%	19.23%
4252	High Desert Education Service District	22.04%	16.59%	21.22%	17.52%	14.41%	18.77%

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School Districts							
School							
4341	Hillsboro School District #1J	21.73%	16.28%	20.91%	17.08%	13.97%	18.33%
3409	Hood River County School District	20.03%	14.58%	19.21%	15.31%	12.20%	16.56%
4223	InterMountain Education Service District	19.06%	13.61%	18.24%	15.06%	11.95%	16.31%
3729	Jefferson School District #14Cj	14.27%	8.82%	13.45%	7.18%	4.07%	8.43%
4315	John Day School District	14.74%	9.29%	13.92%	9.51%	6.40%	10.76%
3520	Junction City School District #69	20.85%	15.40%	20.03%	14.81%	11.70%	16.06%
3965	La Grande Public Schools	19.90%	14.45%	19.08%	15.64%	12.53%	16.89%
4268	Lake Oswego School District	18.28%	12.83%	17.46%	15.21%	12.10%	16.46%
4276	Lane County Education Service District	23.54%	18.09%	22.72%	19.40%	16.29%	20.65%
3579	Lincoln County School District	0.06%	0.00%	0.00%	0.05%	0.00%	0.00%
3447	Madras School District	23.40%	17.95%	22.58%	18.12%	15.01%	19.37%
4142	McMinnville Schools	23.07%	17.62%	22.25%	17.83%	14.72%	19.08%
4288	Medford School District #549C	26.96%	21.51%	26.14%	21.88%	18.77%	23.13%
4335	Milton-Freewater Unified School District #7	9.80%	4.35%	8.98%	7.05%	3.94%	8.30%
4423	Molalla River Academy	32.03%	26.58%	31.21%	25.86%	22.75%	27.11%
4331	Molalla River School District	3.21%	0.00%	2.39%	0.05%	0.00%	0.00%
4340	Monroe School District #1J	21.95%	16.50%	21.13%	15.83%	12.72%	17.08%
3372	Monument School District #8	16.62%	11.17%	15.80%	7.73%	4.62%	8.98%
3809	Morrow County Schools	23.63%	18.18%	22.81%	19.30%	16.19%	20.55%
4238	Multnomah Education Service District	14.56%	9.11%	13.74%	13.43%	10.32%	14.68%
4336	Nestucca Valley School District #101	22.76%	17.31%	21.94%	18.42%	15.31%	19.67%
4135	Newberg School District #29Jt	15.88%	10.43%	15.06%	9.06%	5.95%	10.31%
3245	North Bend Public Schools	22.32%	16.87%	21.50%	18.03%	14.92%	19.28%
4321	North Clackamas School District #12	16.75%	11.30%	15.93%	12.88%	9.77%	14.13%
3730	North Marion School District #15	17.72%	12.27%	16.90%	12.96%	9.85%	14.21%
4342	North Santiam School District #29J	13.57%	8.12%	12.75%	9.11%	6.00%	10.36%
4381	North Wasco County School District #21	18.17%	12.72%	17.35%	13.34%	10.23%	14.59%
3307	Oakland School District	32.03%	26.58%	31.21%	25.18%	22.07%	26.43%
3684	Ontario School District #8C	21.88%	16.43%	21.06%	17.63%	14.52%	18.88%
3122	Oregon City School District #62	21.05%	15.60%	20.23%	16.12%	13.01%	17.37%
3820	Parkrose School District	23.92%	18.47%	23.10%	18.05%	14.94%	19.30%
3931	Pendleton School District #16R	8.71%	3.26%	7.89%	3.30%	0.19%	4.55%
3043	Philomath School District #17J	21.25%	15.80%	20.43%	17.97%	14.86%	19.22%
3414	Phoenix-Talent School District	18.97%	13.52%	18.15%	13.33%	10.22%	14.58%
3958	Pilot Rock School District #2R	16.97%	11.52%	16.15%	11.13%	8.02%	12.38%
3470	Pleasant Hill School District	31.48%	26.03%	30.66%	26.26%	23.15%	27.51%
3818	Portland Public Schools	8.81%	3.36%	7.99%	6.47%	3.36%	7.72%

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School Districts							
School							
4403	Portland Village School	30.55%	25.10%	29.73%	25.34%	22.23%	26.59%
3370	Prairie City School District #4	25.06%	19.61%	24.24%	19.87%	16.76%	21.12%
4320	Rainier School District #13	15.50%	10.05%	14.68%	12.80%	9.69%	14.05%
4311	Redmond School District #2J	23.28%	17.83%	22.46%	18.82%	15.71%	20.07%
4312	Reedsport School District	18.09%	12.64%	17.27%	16.02%	12.91%	17.27%
3824	Reynolds School District	15.44%	9.99%	14.62%	8.97%	5.86%	10.22%
3847	Riverdale School	21.18%	15.73%	20.36%	14.67%	11.56%	15.92%
3310	Roseburg Public Schools	15.32%	9.87%	14.50%	9.65%	6.54%	10.90%
3735	Salem-Keizer Public Schools	20.96%	15.51%	20.14%	16.29%	13.18%	17.54%
3665	Santiam Canyon School District	13.33%	7.88%	12.51%	13.43%	10.32%	14.68%
3000	School Districts	32.03%	26.58%	31.21%	26.83%	23.72%	28.08%
3187	Seaside Schools	21.09%	15.64%	20.27%	16.11%	13.00%	17.36%
4144	Sheridan School District #48J	32.03%	26.58%	31.21%	25.82%	22.71%	27.07%
4317	Sherwood School District #88J	27.20%	21.75%	26.38%	22.29%	19.18%	23.54%
4270	Silver Falls School District	21.21%	15.76%	20.39%	16.66%	13.55%	17.91%
3296	Sisters School District	12.89%	7.44%	12.07%	6.41%	3.30%	7.66%
3537	Siuslaw School District #97J	17.12%	11.67%	16.30%	13.09%	9.98%	14.34%
3506	South Lane School District	12.41%	6.96%	11.59%	6.92%	3.81%	8.17%
3319	South Umpqua School District	0.06%	0.00%	0.00%	0.05%	0.00%	0.00%
3487	Springfield School District #19	20.71%	15.26%	19.89%	16.79%	13.68%	18.04%
4279	St Helens School District #502	9.07%	3.62%	8.25%	5.09%	1.98%	6.34%
3942	Stanfield School District	14.08%	8.63%	13.26%	10.35%	7.24%	11.60%
3353	Sutherlin School District #130	11.17%	5.72%	10.35%	6.21%	3.10%	7.46%
3618	Sweet Home School District #55	8.33%	2.88%	7.51%	7.00%	3.89%	8.25%
4380	The Emerson School	30.21%	24.76%	29.39%	24.93%	21.82%	26.18%
4338	Three Rivers U J School District	20.80%	15.35%	19.98%	16.24%	13.13%	17.49%
4316	Tigard-Tualatin School District #23J	27.59%	22.14%	26.77%	22.82%	19.71%	24.07%
3902	Tillamook Public Schools	8.49%	3.04%	7.67%	6.22%	3.11%	7.47%
3928	Umatilla School District #6R	24.08%	18.63%	23.26%	19.88%	16.77%	21.13%
3966	Union County School District	17.16%	11.71%	16.34%	12.45%	9.34%	13.70%
3195	Warrenton-Hammond School District	24.49%	19.04%	23.67%	19.43%	16.32%	20.68%
3075	West Linn School District	24.25%	18.80%	23.43%	20.15%	17.04%	21.40%
4254	Willamette Education Service District	10.86%	5.41%	10.04%	9.11%	6.00%	10.36%
4314	Willamina School District #30J	27.35%	21.90%	26.53%	22.62%	19.51%	23.87%
3349	Winston-Dillard Schools	0.06%	0.00%	0.00%	0.05%	0.00%	0.00%
4166	Yamhill-Carlton School District #1	0.11%	0.00%	0.00%	0.05%	0.00%	0.00%

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SLGRP (Default Tier 1/Tier 2 Rates)							
CC							
2901	Blue Mountain Community College	18.16%	12.07%	16.70%	17.38%	13.69%	18.05%
2999	Central Oregon Community College	22.54%	16.45%	21.08%	21.60%	17.91%	22.27%
2919	Chemeketa Community College	15.75%	9.66%	14.29%	15.25%	11.56%	15.92%
2908	Clackamas Community College	18.15%	12.06%	16.69%	17.89%	14.20%	18.56%
2900	Clatsop Community College	15.17%	9.08%	13.71%	16.68%	12.99%	17.35%
2996	Columbia Gorge Community College	19.42%	13.33%	17.96%	18.53%	14.84%	19.20%
2906	Klamath Community College	27.46%	21.37%	26.00%	27.02%	23.33%	27.69%
2904	Lane Community College	12.72%	6.63%	11.26%	11.35%	7.66%	12.02%
2910	Linn-Benton Community College	17.23%	11.14%	15.77%	16.85%	13.16%	17.52%
2905	Mt Hood Community College	11.81%	5.72%	10.35%	12.41%	8.72%	13.08%
2995	Oregon Coast Community College	18.44%	12.35%	16.98%	19.32%	15.63%	19.99%
2918	Portland Community College	8.46%	2.37%	7.00%	6.83%	3.14%	7.50%
2922	Rogue Community College	17.97%	11.88%	16.51%	17.24%	13.55%	17.91%
2998	Southwestern Community College	15.73%	9.64%	14.27%	15.51%	11.82%	16.18%
2997	Tillamook Bay Community College	20.73%	14.64%	19.27%	20.82%	17.13%	21.49%
2902	Treasure Valley Community College	11.87%	5.78%	10.41%	8.10%	4.41%	8.77%
2903	Umpqua Community College	17.15%	11.06%	15.69%	16.55%	12.86%	17.22%
City							
2258	City of Adair Village	26.57%	19.08%	23.71%	26.23%	21.16%	25.52%
2103	City of Albany	26.51%	17.27%	21.90%	26.19%	19.46%	23.82%
2235	City of Amity	14.97%	7.48%	12.11%	10.28%	3.98%	8.34%
2104	City of Ashland	27.51%	19.02%	23.65%	27.35%	21.20%	25.56%
2105	City of Astoria	28.91%	20.55%	25.18%	28.41%	22.52%	26.88%
2234	City of Aumsville	21.77%	14.38%	19.01%	22.74%	17.19%	21.55%
2272	City of Aurora	10.35%	2.86%	7.49%	18.00%	12.93%	17.29%
2159	City of Baker City	27.21%	18.11%	22.74%	26.80%	20.33%	24.69%
2150	City of Bandon	24.76%	18.23%	22.86%	25.16%	20.45%	24.81%
2231	City of Banks	14.08%	9.78%	14.41%	20.35%	15.28%	19.64%
2241	City of Bay City	19.33%	15.03%	19.66%	22.58%	17.51%	21.87%
2178	City of Boardman	26.05%	17.94%	22.57%	25.88%	20.29%	24.65%
2216	City of Brookings	26.19%	17.57%	22.20%	25.93%	19.65%	24.01%
2204	City of Burns	22.00%	14.27%	18.90%	20.68%	15.64%	20.00%
2109	City of Canby	22.37%	13.60%	18.23%	22.33%	16.40%	20.76%
2223	City of Cannon Beach	23.15%	16.38%	21.01%	24.20%	19.02%	23.38%
2198	City of Carlton	15.24%	10.94%	15.57%	16.73%	14.40%	18.76%
2182	City of Cascade Locks	35.28%	26.44%	31.07%	34.77%	28.47%	32.83%
2194	City of Cave Junction	23.59%	17.25%	21.88%	25.77%	19.47%	23.83%

Summary of PERS Employer Contribution Rates

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Employer Number	Employer Name	Net Employer Contribution Rate 7/1/19 - 6/30/21			Net Employer Contribution Rate 7/1/21 - 6/30/23		
		Tier 1/ Tier 2 Payroll	OPSRP General Service Payroll	OPSRP Police and Fire Payroll	Tier 1/ Tier 2 Payroll (reflects 2.45% member redirect offset)	OPSRP General Service Payroll (reflects 0.70% member redirect offset)	OPSRP Police and Fire Payroll
SLGRP (Default Tier 1/Tier 2 Rates)							
City							
2181	City of Central Point	24.86%	17.54%	22.17%	25.08%	19.79%	24.15%
2201	City of Coburg	16.49%	9.16%	13.79%	17.54%	15.21%	19.57%
2271	City of Columbia City	27.81%	18.47%	23.10%	32.11%	20.69%	25.05%
2177	City of Condon	22.30%	18.00%	22.63%	22.32%	19.99%	24.35%
2110	City of Coquille	27.95%	19.77%	24.40%	28.61%	22.12%	26.48%
2155	City of Corvallis	19.52%	10.72%	15.35%	19.30%	13.39%	17.75%
2236	City of Creswell	23.50%	18.48%	23.11%	23.67%	20.74%	25.10%
2202	City of Dallas	26.60%	18.24%	22.87%	26.36%	20.21%	24.57%
2252	City of Dayton	18.16%	11.33%	15.96%	19.42%	15.52%	19.88%
2294	City of Depoe Bay	24.32%	18.43%	23.06%	25.18%	20.67%	25.03%
2131	City of Drain	27.36%	18.53%	23.16%	27.05%	20.75%	25.11%
2245	City of Dundee	24.73%	17.18%	21.81%	24.05%	19.26%	23.62%
2299	City of Dunes City	29.78%	22.29%	26.92%	25.97%	20.90%	25.26%
2269	City of Durham	24.49%	17.00%	21.63%	22.56%	17.49%	21.85%
2225	City of Echo	32.84%	24.50%	29.13%	42.83%	36.53%	40.89%
2205	City of Elgin	0.06%	0.00%	0.00%	0.05%	0.00%	0.00%
2305	City of Elkton	22.91%	18.61%	23.24%	23.14%	20.81%	25.17%
2180	City of Enterprise	26.44%	20.15%	24.78%	25.64%	22.16%	26.52%
2179	City of Estacada	25.98%	19.17%	23.80%	26.23%	21.26%	25.62%
2208	City of Fairview	23.20%	15.74%	20.37%	18.68%	14.72%	19.08%
2224	City of Falls City	21.88%	15.01%	19.64%	24.69%	18.39%	22.75%
2291	City of Florence	18.85%	10.14%	14.77%	16.82%	13.18%	17.54%
2220	City of Garibaldi	27.90%	21.49%	26.12%	26.34%	24.01%	28.37%
2242	City of Gaston	0.06%	0.00%	0.00%	0.05%	0.00%	0.00%
2304	City of Gladstone	25.38%	15.92%	20.55%	24.43%	18.38%	22.74%
2274	City of Gold Hill	0.06%	0.00%	0.00%	1.54%	0.00%	0.83%
2113	City of Grants Pass	28.25%	18.95%	23.58%	28.24%	21.08%	25.44%
2284	City of Halsey	17.37%	13.07%	17.70%	19.00%	16.67%	21.03%
2296	City of Happy Valley	21.57%	15.81%	20.44%	21.02%	17.52%	21.88%
2268	City of Harrisburg	23.02%	17.66%	22.29%	22.22%	19.75%	24.11%
2193	City of Heppner	4.67%	0.00%	1.81%	5.67%	3.35%	7.71%
2160	City of Hermiston	26.81%	18.84%	23.47%	26.85%	21.06%	25.42%
2226	City of Hines	24.98%	17.49%	22.12%	24.77%	19.70%	24.06%
2138	City of Hood River	27.86%	17.56%	22.19%	28.27%	19.92%	24.28%
2196	City of Hubbard	28.71%	19.97%	24.60%	28.05%	21.74%	26.10%
2191	City of Huntington	63.86%	56.37%	61.00%	60.45%	55.38%	59.74%
2267	City of Independence	24.83%	16.15%	20.78%	25.61%	18.76%	23.12%

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SLGRP (Default Tier 1/Tier 2 Rates)							
City							
2266	City of Irrigon	22.76%	17.12%	21.75%	22.95%	19.48%	23.84%
2211	City of Jefferson	0.06%	0.00%	0.00%	0.05%	0.00%	0.00%
2229	City of John Day	17.02%	9.09%	13.72%	10.73%	8.40%	12.76%
2256	City of Jordan Valley	0.06%	0.00%	0.00%	0.05%	0.00%	0.00%
2199	City of Junction City	25.08%	17.81%	22.44%	24.38%	20.05%	24.41%
2287	City of King City	28.42%	16.03%	20.66%	27.69%	18.34%	22.70%
2148	City of Klamath Falls	20.54%	11.41%	16.04%	20.34%	13.52%	17.88%
2263	City of La Grande	25.50%	13.01%	17.64%	24.72%	15.00%	19.36%
2233	City of Lafayette	20.73%	14.64%	19.27%	21.54%	17.45%	21.81%
2120	City of Lake Oswego	28.66%	19.12%	23.75%	28.39%	21.20%	25.56%
2244	City of Lakeside	8.85%	4.55%	9.18%	6.40%	1.33%	5.69%
2140	City of Lebanon	23.31%	14.42%	19.05%	23.25%	16.64%	21.00%
2298	City of Lincoln City	21.66%	13.43%	18.06%	21.85%	15.96%	20.32%
2293	City of Lowell	24.73%	17.24%	21.87%	24.70%	19.63%	23.99%
2270	City of Lyons	26.24%	17.41%	22.04%	25.62%	19.32%	23.68%
2170	City of Madras	27.39%	16.93%	21.56%	26.62%	19.23%	23.59%
2247	City of Malin	21.38%	14.91%	19.54%	18.21%	15.44%	19.80%
2281	City of Manzanita	29.09%	17.38%	22.01%	29.07%	19.72%	24.08%
2117	City of McMinnville	28.39%	18.53%	23.16%	27.81%	20.75%	25.11%
2102	City of Medford	22.52%	12.80%	17.43%	22.34%	15.00%	19.36%
2207	City of Mill City	23.04%	18.74%	23.37%	23.23%	20.90%	25.26%
2286	City of Millersburg	23.09%	18.79%	23.42%	23.64%	21.31%	25.67%
2158	City of Milton-Freewater	28.23%	20.30%	24.93%	27.57%	22.46%	26.82%
2163	City of Milwaukie	23.45%	13.99%	18.62%	23.32%	16.70%	21.06%
2157	City of Monmouth	22.54%	14.77%	19.40%	21.26%	16.42%	20.78%
2209	City of Monroe	13.89%	6.40%	11.03%	17.20%	12.13%	16.49%
2301	City of Moro	15.11%	7.62%	12.25%	15.96%	10.89%	15.25%
2302	City of Mt. Vernon	20.10%	11.27%	15.90%	21.69%	15.39%	19.75%
2197	City of Myrtle Creek	20.16%	13.96%	18.59%	20.34%	16.21%	20.57%
2183	City of Myrtle Point	18.60%	9.91%	14.54%	19.42%	13.00%	17.36%
2777	City of Newberg	21.99%	12.10%	16.73%	22.49%	15.07%	19.43%
2276	City of Newport	25.49%	13.16%	17.79%	25.07%	15.20%	19.56%
2292	City of North Bend	25.74%	15.95%	20.58%	24.91%	18.16%	22.52%
2192	City of North Plains	20.49%	16.19%	20.82%	20.62%	18.29%	22.65%
2308	City of North Powder	21.67%	17.37%	22.00%	18.09%	13.02%	17.38%
2166	City of Nyssa	27.15%	17.74%	22.37%	27.10%	20.06%	24.42%
2143	City of Oakland	33.17%	28.87%	33.50%	32.68%	30.35%	34.71%

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SLGRP (Default Tier 1/Tier 2 Rates)							
City							
2168	City of Oakridge	34.57%	23.55%	28.18%	34.11%	26.26%	30.62%
2119	City of Oregon City	22.76%	15.11%	19.74%	23.13%	17.44%	21.80%
2154	City of Pendleton	24.07%	14.25%	18.88%	24.13%	16.57%	20.93%
2187	City of Philomath	19.45%	10.81%	15.44%	16.27%	11.08%	15.44%
2249	City of Phoenix	15.57%	8.80%	13.43%	15.48%	10.35%	14.71%
2161	City of Pilot Rock	30.69%	23.81%	28.44%	29.94%	25.35%	29.71%
2184	City of Port Orford	26.10%	17.71%	22.34%	26.46%	20.06%	24.42%
2121	City of Portland	21.86%	15.53%	20.16%	22.35%	18.36%	22.72%
2122	City of Redmond	23.49%	15.42%	20.05%	24.07%	18.29%	22.65%
2139	City of Reedsport	14.44%	6.74%	11.37%	12.53%	6.69%	11.05%
2260	City of Riddle	24.25%	16.67%	21.30%	22.72%	18.23%	22.59%
2203	City of Rockaway Beach	23.41%	16.92%	21.55%	23.07%	18.43%	22.79%
2251	City of Rogue River	31.18%	22.36%	26.99%	30.26%	24.70%	29.06%
2100	City of Roseburg	28.11%	18.53%	23.16%	27.94%	20.75%	25.11%
2172	City of Sandy	26.40%	17.87%	22.50%	26.54%	20.21%	24.57%
2176	City of Scappoose	26.28%	18.87%	23.50%	26.62%	21.06%	25.42%
2254	City of Shady Cove	10.00%	2.51%	7.14%	9.59%	4.52%	8.88%
2142	City of Sherwood	26.61%	18.28%	22.91%	26.54%	20.53%	24.89%
2273	City of Silverton	24.84%	16.02%	20.65%	22.88%	16.83%	21.19%
2221	City of Sisters	18.80%	14.50%	19.13%	19.38%	17.05%	21.41%
2278	City of Springfield	21.65%	12.67%	17.30%	21.68%	14.92%	19.28%
2123	City of St Helens	29.62%	22.22%	26.85%	28.88%	24.08%	28.44%
2757	City of Stayton	29.33%	17.62%	22.25%	25.87%	16.52%	20.88%
2217	City of Sutherlin	18.29%	10.88%	15.51%	20.05%	14.86%	19.22%
2188	City of Talent	23.60%	14.35%	18.98%	23.08%	16.71%	21.07%
2295	City of Tigard	25.25%	12.99%	17.62%	24.74%	15.08%	19.44%
2128	City of Tillamook	25.06%	16.46%	21.09%	23.93%	18.31%	22.67%
2275	City of Toledo	15.46%	6.44%	11.07%	15.34%	8.91%	13.27%
2237	City of Troutdale	14.69%	8.63%	13.26%	16.34%	13.06%	17.42%
2288	City of Tualatin	26.75%	17.89%	22.52%	26.85%	20.13%	24.49%
2228	City of Turner	25.93%	19.67%	24.30%	26.46%	21.76%	26.12%
2175	City of Umatilla	19.07%	11.02%	15.65%	20.63%	13.86%	18.22%
2145	City of Vale	31.75%	25.64%	30.27%	31.49%	27.34%	31.70%
2285	City of Veneta	23.29%	16.02%	20.65%	24.32%	18.54%	22.90%
2125	City of Vernonia	21.70%	12.87%	17.50%	21.65%	14.91%	19.27%
2200	City of Wallowa	18.29%	12.97%	17.60%	18.20%	15.13%	19.49%
2238	City of Warrenton	26.80%	17.62%	22.25%	25.72%	20.03%	24.39%

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SLGRP (Default Tier 1/Tier 2 Rates)							
City							
2126	City of West Linn	23.39%	15.80%	20.43%	22.65%	17.77%	22.13%
2265	City of Westfir	18.72%	11.23%	15.86%	10.35%	5.28%	9.64%
2206	City of Weston	14.96%	10.66%	15.29%	13.28%	10.95%	15.31%
2147	City of Wheeler	27.70%	20.21%	24.84%	27.30%	22.23%	26.59%
2240	City of Wilsonville	24.37%	17.94%	22.57%	24.32%	20.26%	24.62%
2280	City of Winston	17.80%	8.03%	12.66%	18.89%	11.34%	15.70%
2185	City of Wood Village	20.02%	15.72%	20.35%	23.21%	18.38%	22.74%
2303	City of Woodburn	21.34%	13.38%	18.01%	21.29%	15.73%	20.09%
2300	City of Yachats	20.94%	12.11%	16.74%	21.78%	15.48%	19.84%
2214	City of Yamhill	22.90%	14.88%	19.51%	23.96%	16.74%	21.10%
2307	City of Yoncalla	22.45%	18.15%	22.78%	22.74%	20.41%	24.77%
2255	Town of Canyon City	28.19%	20.70%	25.33%	27.86%	22.79%	27.15%
2212	Town of Lakeview	15.17%	6.50%	11.13%	10.28%	4.27%	8.63%
County							
2021	Baker County	23.23%	15.49%	20.12%	23.06%	17.62%	21.98%
2040	Benton County	19.63%	12.27%	16.90%	19.94%	14.88%	19.24%
2036	Clatsop County	20.68%	12.10%	16.73%	20.23%	14.17%	18.53%
2017	Columbia County	20.74%	12.75%	17.38%	21.54%	16.03%	20.39%
2018	Coos County	29.34%	21.10%	25.73%	28.82%	23.00%	27.36%
2044	Crook County	25.74%	13.14%	17.77%	26.21%	16.47%	20.83%
2027	Deschutes County	22.27%	14.26%	18.89%	22.81%	17.22%	21.58%
2022	Gilliam County	24.78%	17.66%	22.29%	24.85%	19.96%	24.32%
2012	Grant County	8.47%	0.72%	5.35%	9.97%	3.62%	7.98%
2004	Harney County	23.86%	16.31%	20.94%	24.21%	18.68%	23.04%
2035	Hood River County	14.90%	7.71%	12.34%	14.14%	9.14%	13.50%
2005	Jackson County	25.40%	17.29%	21.92%	25.38%	19.57%	23.93%
2042	Josephine County	28.58%	20.85%	25.48%	27.54%	22.42%	26.78%
2007	Klamath County	15.92%	3.53%	8.16%	17.61%	7.72%	12.08%
2000	Lake County	24.06%	15.75%	20.38%	24.74%	18.02%	22.38%
2043	Lincoln County	21.39%	8.76%	13.39%	21.78%	11.54%	15.90%
2009	Marion County	21.18%	13.01%	17.64%	21.07%	15.39%	19.75%
2038	Multnomah County	20.81%	12.79%	17.42%	20.91%	15.26%	19.62%
2016	Sherman County	20.90%	13.98%	18.61%	21.76%	16.88%	21.24%
2013	Umatilla County	19.84%	11.46%	16.09%	20.46%	14.31%	18.67%
2020	Wasco County	19.77%	11.94%	16.57%	19.55%	14.45%	18.81%
2011	Washington County	25.91%	17.74%	22.37%	25.47%	19.88%	24.24%
Special Districts							

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SLGRP (Default Tier 1/Tier 2 Rates)							
Special Districts							
2742	Amity Fire District	25.74%	12.23%	16.86%	0.05%	0.00%	0.00%
2631	Arch Cape Water-Sanitary District	18.14%	13.84%	18.47%	18.35%	16.02%	20.38%
2602	Aumsville Rural Fire Protection District	14.72%	10.42%	15.05%	17.40%	15.07%	19.43%
2804	Aurora Rural Fire Protection District	14.48%	2.77%	7.40%	24.19%	14.84%	19.20%
2728	Baker County Library District	26.00%	18.28%	22.91%	26.44%	20.14%	24.50%
2601	Baker Valley Irrigation District	0.06%	0.00%	0.00%	0.05%	0.00%	0.00%
2749	Black Butte Ranch Police	22.67%	10.96%	15.59%	22.17%	12.82%	17.18%
2595	Canby Fire District	29.54%	17.76%	22.39%	27.87%	19.95%	24.31%
2731	Canby Utility Board	25.60%	18.70%	23.33%	25.68%	20.87%	25.23%
2840	Cannon Beach Rural Fire Protection District	31.86%	18.48%	23.11%	29.93%	20.69%	25.05%
2820	Central Oregon Coast Fire & Rescue District	0.06%	0.00%	0.00%	13.13%	8.06%	12.42%
2569	Central Oregon Intergovernmental Council	11.92%	6.38%	11.01%	10.34%	7.66%	12.02%
2563	Central Oregon Irrigation District	27.21%	21.14%	25.77%	27.39%	23.34%	27.70%
2567	Charleston Rural Fire Protection District	13.21%	0.00%	3.92%	29.03%	17.64%	22.00%
2699	Chetco Library Board	26.88%	18.05%	22.68%	26.78%	20.48%	24.84%
2745	Clackamas County Fire District	28.53%	16.37%	21.00%	27.60%	18.54%	22.90%
2761	Clackamas River Water	23.86%	18.53%	23.16%	24.06%	20.68%	25.04%
2538	Clackamas Vector Control	29.19%	21.70%	26.33%	28.99%	23.92%	28.28%
2707	Clatskanie Library	26.43%	18.95%	23.58%	27.51%	21.21%	25.57%
2526	Clatskanie PUD	20.51%	13.97%	18.60%	18.38%	16.05%	20.41%
2588	Clatskanie Rural Fire Protection District	29.08%	16.01%	20.64%	30.27%	19.45%	23.81%
2617	Clean Water Services	16.83%	10.10%	14.73%	16.58%	12.34%	16.70%
2681	Cloverdale Rural Fire Protection District	35.46%	21.54%	26.17%	35.59%	24.17%	28.53%
2801	Coburg Rural Fire Protection District	26.20%	14.53%	19.16%	29.25%	19.69%	24.05%
2649	Colton Fire Department	19.97%	6.05%	10.68%	25.39%	13.97%	18.33%
2671	Columbia 911 Communications District	22.64%	17.51%	22.14%	22.98%	19.87%	24.23%
2687	Columbia Drainage Vector Control District	35.70%	31.40%	36.03%	31.03%	28.70%	33.06%
2528	Columbia River Fire & Rescue	24.33%	12.24%	16.87%	24.29%	14.34%	18.70%
2612	Community Services Consortium	22.55%	16.76%	21.39%	22.96%	19.28%	23.64%
2860	Coos County Airport District	18.91%	14.61%	19.24%	18.49%	16.16%	20.52%
2806	Corbett Fire District No. 14	N/A	N/A	N/A	25.52%	20.45%	24.81%
2603	Corbett Water District	22.83%	18.53%	23.16%	25.82%	20.75%	25.11%
2545	Council of Governments	24.61%	18.52%	23.15%	24.92%	20.74%	25.10%
2834	Crescent Rural Fire Protection District	24.86%	17.37%	22.00%	26.11%	21.04%	25.40%
2844	Crook County Rural Fire Protection District #1	28.59%	18.34%	22.97%	28.52%	20.61%	24.97%
2647	Crooked River Ranch Rural Fire Protection District	24.94%	17.45%	22.08%	24.85%	19.78%	24.14%
2571	Crystal Springs Water District	23.31%	19.01%	23.64%	23.87%	21.54%	25.90%

Summary of PERS Employer Contribution Rates

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Employer Number	Employer Name	Net Employer Contribution Rate 7/1/19 - 6/30/21			Net Employer Contribution Rate 7/1/21 - 6/30/23		
		Tier 1/ Tier 2 Payroll	OPSRP General Service Payroll	OPSRP Police and Fire Payroll	Tier 1/ Tier 2 Payroll (reflects 2.45% member redirect offset)	OPSRP General Service Payroll (reflects 0.70% member redirect offset)	OPSRP Police and Fire Payroll
SLGRP (Default Tier 1/Tier 2 Rates)							
Special Districts							
2718	Curry Library	7.80%	3.50%	8.13%	14.54%	9.47%	13.83%
2576	Depoe Bay Rural Fire Protection District	32.10%	18.18%	22.81%	31.95%	20.53%	24.89%
2642	Dexter Rural Fire Protection District	21.12%	13.63%	18.26%	24.62%	19.55%	23.91%
2557	Estacada Fire Department	21.41%	7.49%	12.12%	20.85%	9.43%	13.79%
2132	Eugene Water & Electric Board	19.35%	13.79%	18.42%	19.16%	15.94%	20.30%
2798	Fairview Water District	23.01%	15.52%	20.15%	24.24%	19.17%	23.53%
2789	Farmers Irrigation District	14.48%	7.03%	11.66%	16.10%	11.04%	15.40%
2824	Glide Fire Department	31.41%	17.49%	22.12%	29.50%	20.15%	24.51%
2511	Grants Pass Irrigation District	28.31%	19.48%	24.11%	26.96%	21.89%	26.25%
2784	Greater St. Helens Aquatic District	20.57%	16.27%	20.90%	21.16%	18.83%	23.19%
2765	Green Sanitary	23.47%	16.97%	21.60%	23.29%	19.28%	23.64%
2855	Harney Hospital	21.79%	16.73%	21.36%	21.70%	18.99%	23.35%
2819	Harrisburg Fire-Rescue	29.48%	17.77%	22.40%	30.57%	20.10%	24.46%
2838	High Desert Parks & Recreation District	26.40%	18.91%	23.54%	26.29%	21.22%	25.58%
2519	Home Forward	20.69%	14.96%	19.59%	21.06%	17.54%	21.90%
2607	Hoodland Fire District #74	29.22%	17.18%	21.81%	29.25%	19.70%	24.06%
2510	Horsefly Irrigation District	27.70%	20.21%	24.84%	27.30%	22.23%	26.59%
2773	Housing Authority of Jackson County	23.46%	18.53%	23.16%	23.44%	20.75%	25.11%
2829	Hubbard Rural Fire Protection District	N/A	N/A	N/A	20.35%	15.28%	19.64%
2886	Idanha-Detroit Rural Fire Protection District	27.70%	20.21%	24.84%	27.30%	22.23%	26.59%
2564	Illinois Valley Fire District	22.54%	10.83%	15.46%	23.62%	14.27%	18.63%
2651	Imbler Rural Fire Protection District	33.06%	19.14%	23.77%	32.82%	21.40%	25.76%
2715	Jackson County Fire District #3	24.93%	12.62%	17.25%	24.17%	14.46%	18.82%
2620	Jackson County Fire District #4	34.13%	20.21%	24.84%	27.30%	22.23%	26.59%
2541	Jackson County Vector Control District	23.64%	16.15%	20.78%	24.53%	19.46%	23.82%
2712	Jefferson County EMS	23.09%	18.79%	23.42%	23.26%	20.93%	25.29%
2846	Jefferson County Library District	24.38%	19.60%	24.23%	23.48%	21.15%	25.51%
2561	Jefferson Rural Fire Protection District	19.39%	8.80%	13.43%	18.43%	10.59%	14.95%
2763	Junction City Fire Department	26.42%	17.46%	22.09%	21.43%	19.10%	23.46%
2559	Keizer Fire Department	27.63%	15.96%	20.59%	28.39%	18.41%	22.77%
2710	Klamath County Emergency Communications District	26.41%	20.54%	25.17%	25.59%	22.15%	26.51%
2721	Klamath Housing Authority	19.65%	15.35%	19.98%	21.25%	18.92%	23.28%
2624	Klamath Vector Control	30.50%	23.01%	27.64%	29.13%	24.06%	28.42%
2579	La Pine Rural Fire Protection District	27.36%	15.50%	20.13%	27.54%	18.08%	22.44%
2768	Lake County Library District	27.11%	19.34%	23.97%	26.35%	21.49%	25.85%
2522	Lane Council of Governments	25.48%	18.77%	23.40%	25.40%	20.78%	25.14%
2883	Lane Fire Authority	30.71%	18.27%	22.90%	30.25%	20.56%	24.92%

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SLGRP (Default Tier 1/Tier 2 Rates)							
Special Districts							
2849	Lebanon Aquatic District	26.20%	19.02%	23.65%	27.26%	21.29%	25.65%
2705	Lebanon Fire District	29.96%	16.67%	21.30%	29.99%	19.33%	23.69%
2753	Linn-Benton Housing Authority	15.44%	10.11%	14.74%	16.61%	13.35%	17.71%
2700	Lowell Rural Fire Protection District	12.28%	4.79%	9.42%	12.62%	3.27%	7.63%
2823	Lyons Fire District	31.68%	24.19%	28.82%	27.46%	22.39%	26.75%
2580	Marion County Fire District #1	33.99%	21.88%	26.51%	32.92%	23.62%	27.98%
2598	Marion County Housing Authority	0.06%	0.00%	0.00%	0.05%	0.00%	0.00%
2628	McKenzie Fire And Rescue	26.19%	14.48%	19.11%	25.58%	16.23%	20.59%
2135	McMinnville Water & Light Department	24.27%	18.53%	23.16%	24.39%	20.75%	25.11%
2592	Medford Irrigation District	22.29%	15.52%	20.15%	23.13%	18.82%	23.18%
2837	METCOM	21.61%	15.56%	20.19%	22.23%	17.77%	22.13%
2594	Metro	20.25%	14.15%	18.78%	20.50%	16.76%	21.12%
2663	Metropolitan Area Communications Commission	25.68%	16.85%	21.48%	24.14%	19.07%	23.43%
2811	Mid-Columbia Center For Living	24.31%	18.68%	23.31%	24.39%	20.90%	25.26%
2853	Mill City Rural Fire Protection District	20.74%	9.03%	13.66%	20.77%	11.42%	15.78%
2752	Mist-Birkenfeld Rural Fire Protection District	20.92%	9.21%	13.84%	25.77%	16.42%	20.78%
2758	Mohawk Valley Rural Fire District	18.38%	10.89%	15.52%	23.02%	17.95%	22.31%
2568	Molalla Rural Fire Protection District #73	31.92%	19.80%	24.43%	31.63%	21.89%	26.25%
2555	Monroe Fire Department	26.00%	14.29%	18.92%	28.01%	18.66%	23.02%
2873	Mosier Fire District	20.90%	9.19%	13.82%	21.68%	12.33%	16.69%
2778	Mulino Water District #23	23.03%	18.73%	23.36%	23.28%	20.95%	25.31%
2508	Multnomah Drainage	24.90%	19.79%	24.42%	23.88%	21.55%	25.91%
2869	Nehalem Bay Fire & Rescue	34.13%	20.21%	24.84%	27.30%	22.23%	26.59%
2858	Nesika Beach-Ophir Water District	20.72%	16.42%	21.05%	21.02%	18.69%	23.05%
2716	Neskowin Water District	25.99%	18.50%	23.13%	25.80%	20.73%	25.09%
2674	Nestucca Rural Fire District	23.25%	11.53%	16.16%	25.71%	16.35%	20.71%
2818	Netarts Water District	20.24%	15.94%	20.57%	20.68%	18.35%	22.71%
2830	Netarts-Oceanside Rural Fire Protection District	29.74%	18.03%	22.66%	29.90%	20.55%	24.91%
2604	Netarts-Oceanside Sanitary District	15.23%	10.93%	15.56%	17.65%	15.32%	19.68%
2781	North Bend Coos-Curry Housing Authority	55.77%	48.28%	52.91%	45.24%	40.17%	44.53%
2884	North Central Public Health District	28.29%	20.21%	24.84%	28.53%	22.23%	26.59%
2638	North Douglas County Fire and EMS	26.68%	14.97%	19.60%	30.21%	20.86%	25.22%
2793	North Lincoln Fire & Rescue District #1	29.11%	17.40%	22.03%	30.31%	20.96%	25.32%
2839	North Morrow Vector Control District	22.95%	18.65%	23.28%	23.19%	20.86%	25.22%
2792	North Wasco County Parks And Recreation District	27.36%	18.53%	23.16%	25.82%	20.75%	25.11%
2825	Northern Oregon Corrections	17.65%	9.77%	14.40%	17.19%	12.35%	16.71%
2657	Northwest Senior & Disability Services	22.59%	16.74%	21.37%	23.05%	19.21%	23.57%

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SLGRP (Default Tier 1/Tier 2 Rates)							
Special Districts							
2888	Oak Lodge Water Services District	22.50%	16.93%	21.56%	23.23%	19.21%	23.57%
2852	Ochoco Irrigation District	17.41%	13.11%	17.74%	20.76%	15.36%	19.72%
2816	Odell Sanitary District	23.75%	19.45%	24.08%	23.83%	21.50%	25.86%
2880	Oregon Health & Science University	18.47%	11.80%	16.43%	17.53%	13.34%	17.70%
2531	Oregon School Boards Association	28.02%	20.31%	24.94%	26.92%	22.31%	26.67%
2774	Oregon Trail Library District	22.17%	17.88%	22.51%	22.68%	20.35%	24.71%
2684	Parkdale Fire District	32.40%	20.69%	25.32%	32.02%	22.67%	27.03%
2694	Philomath Fire Department	29.08%	17.37%	22.00%	25.31%	20.24%	24.60%
2893	Pleasant Hill Goshen Fire & Rescue	N/A	N/A	N/A	35.59%	30.52%	34.88%
2513	Port of Coos Bay	25.96%	19.09%	23.72%	26.08%	21.04%	25.40%
2741	Port of Garibaldi	23.19%	16.79%	21.42%	19.72%	15.32%	19.68%
2625	Port of Newport	13.99%	6.14%	10.77%	19.69%	15.56%	19.92%
2512	Port of Portland	17.28%	10.05%	14.68%	17.39%	12.49%	16.85%
2501	Port of The Dalles	12.55%	7.17%	11.80%	5.65%	3.32%	7.68%
2713	Port of Tillamook Bay	20.69%	16.39%	21.02%	21.09%	18.76%	23.12%
2673	Port Orford Library	15.62%	11.32%	15.95%	20.97%	18.64%	23.00%
2542	Rainbow Water District	29.29%	20.46%	25.09%	28.67%	22.37%	26.73%
2776	Rainier Cemetery District	6.79%	0.00%	3.93%	5.34%	0.27%	4.63%
2590	Redmond Fire & Rescue	27.47%	15.21%	19.84%	26.57%	17.26%	21.62%
2549	Rogue River Fire District	24.68%	13.17%	17.80%	25.21%	16.06%	20.42%
2585	Rogue River Valley Irrigation District	32.12%	27.82%	32.45%	30.12%	27.79%	32.15%
2669	Roseburg Urban Sanitary Authority	20.80%	14.56%	19.19%	21.81%	17.46%	21.82%
2802	Rural Road Assessment District #3	23.02%	18.72%	23.35%	26.11%	21.04%	25.40%
2551	Sandy Fire Department	25.08%	12.95%	17.58%	26.89%	17.08%	21.44%
2709	Scappoose Public Library	13.85%	6.36%	10.99%	20.81%	15.74%	20.10%
2739	Scappoose Rural Fire Protection District	30.21%	18.08%	22.71%	29.57%	20.37%	24.73%
2605	Scio Fire District	0.06%	0.00%	0.00%	20.16%	11.83%	16.19%
2786	Seal Rock Rural Fire Protection District	15.42%	7.93%	12.56%	24.39%	19.32%	23.68%
2734	Seal Rock Water District	21.62%	15.39%	20.02%	21.64%	17.59%	21.95%
2630	Sheridan Fire District	23.81%	14.86%	19.49%	29.42%	20.07%	24.43%
2790	Silver Falls Library District	21.35%	14.50%	19.13%	22.33%	18.02%	22.38%
2659	Silverton Fire District	27.43%	15.73%	20.36%	27.39%	18.00%	22.36%
2701	Sisters-Camp Sherman Rural Fire Protection District	40.06%	27.19%	31.82%	32.46%	23.32%	27.68%
2692	Siuslaw Public Library	21.44%	16.35%	20.98%	21.83%	18.59%	22.95%
2794	Siuslaw Rural Fire Protection District #1	33.83%	19.97%	24.60%	23.92%	18.85%	23.21%
2599	South Suburban Sanitary District	25.64%	18.12%	22.75%	25.67%	20.51%	24.87%
2766	Southwest Lincoln County Water PUD	22.65%	17.13%	21.76%	22.99%	19.43%	23.79%

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SLGRP (Default Tier 1/Tier 2 Rates)							
Special Districts							
2696	Stayton Fire District	29.28%	18.47%	23.10%	27.89%	19.83%	24.19%
2799	Sublimity Fire District	13.43%	9.13%	13.76%	14.59%	12.26%	16.62%
2641	Suburban East Salem Water District	24.86%	17.09%	21.72%	24.99%	19.61%	23.97%
2857	Sunriver Service District	22.81%	11.10%	15.73%	22.31%	12.96%	17.32%
2810	Sutherlin Water Control District	24.73%	17.24%	21.87%	24.89%	19.82%	24.18%
2847	Sweet Home Fire and Ambulance District	30.53%	17.78%	22.41%	30.47%	20.05%	24.41%
2582	Talent Irrigation District	27.56%	19.59%	24.22%	27.28%	21.74%	26.10%
2553	Tangent Rural Fire Protection District	47.03%	33.03%	37.66%	42.05%	30.61%	34.97%
2626	Tillamook Peoples Utility District	24.99%	18.28%	22.91%	24.32%	20.50%	24.86%
2864	Tri City Joint Water & Sanitary Authority	20.87%	16.57%	21.20%	23.58%	18.51%	22.87%
2660	Tualatin Valley Fire & Rescue	27.75%	15.68%	20.31%	27.51%	17.99%	22.35%
2587	Tualatin Valley Irrigation District	19.78%	15.48%	20.11%	20.05%	17.72%	22.08%
2842	Tualatin Valley Water District	14.86%	8.73%	13.36%	14.77%	11.36%	15.72%
2772	Umatilla County Soil & Water District	18.10%	10.61%	15.24%	22.57%	17.50%	21.86%
2732	Umatilla County Special Library District	9.42%	0.59%	5.22%	18.87%	12.57%	16.93%
2653	Umatilla Fire Department	20.52%	13.03%	17.66%	30.02%	18.60%	22.96%
2826	Wasco County Soil-Water Conservation District	17.40%	13.10%	17.73%	19.56%	17.23%	21.59%
2695	Washington County Consolidated Communications Agency	25.28%	19.29%	23.92%	25.13%	21.47%	25.83%
2540	West Extension Irrigation District	16.74%	12.44%	17.07%	17.77%	15.44%	19.80%
2867	West Multnomah Soil And Water Conservation District	24.51%	20.21%	24.84%	24.29%	21.96%	26.32%
2589	West Slope Water District	29.04%	20.21%	24.84%	28.53%	22.23%	26.59%
2606	West Valley Housing Authority	19.87%	14.80%	19.43%	20.66%	17.19%	21.55%
2754	Western Lane Ambulance District	23.96%	18.33%	22.96%	23.59%	20.58%	24.94%
2817	Wickiup Water District	25.88%	18.39%	23.02%	25.73%	20.66%	25.02%
2552	Winston-Dillard Fire District	43.61%	31.32%	35.95%	44.75%	34.97%	39.33%
2600	Winston-Dillard Water District	23.44%	17.41%	22.04%	21.70%	19.37%	23.73%
2676	Woodburn Fire District	37.06%	24.82%	29.45%	36.00%	26.37%	30.73%
2562	WyEast Fire District	34.24%	22.53%	27.16%	31.27%	21.92%	26.28%
2843	Yachats Rural Fire Protection District	30.81%	19.10%	23.73%	30.52%	21.06%	25.42%
2726	Yamhill Communications Agency	24.06%	18.40%	23.03%	24.54%	20.62%	24.98%
State (excluding Agency specific side accounts)							
1000	State Agencies	22.24%	14.75%	19.38%	22.38%	17.29%	21.65%



OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

TIER 1/TIER 2 AND OPSRP PENSION BENEFITS RHIARHIPA RETIREE MEDICAL BENEFITS

December 31, 2019 Actuarial Valuation

Prepared by:

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September 17, 2020

Retirement Board
Oregon Public Employees Retirement System

Dear Members of the Board,

As part of our engagement with the Board, we performed an actuarial valuation of the Oregon Public Employees Retirement System (“PERS” or “the System”) as of December 31, 2019. Our findings are set forth in this actuarial valuation report. This report reflects the benefit provisions in effect as of December 31, 2019.

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

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

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

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: System experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the System’s funded status); and changes in System benefit provisions or applicable law. Due to the limited scope of this assignment, we did not perform an analysis of the potential range of future measurements. The Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated herein in October 2019.



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.

Some of the actuarial computations presented in this report are for purposes of determining contribution rates effective from July 2021 to June 2023 for System employers. Other actuarial computations presented in this report are for purposes of assisting the System and participating employers in fulfilling their financial reporting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of the System's funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the System benefit provisions as summarized in this report. This report does not include results determined under GASB Statements Nos. 67 and 68, or under GASB Statements Nos. 74 and 75, which will be provided separately. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

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

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

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

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

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices 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.

Sincerely,



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



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



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Table of Contents

	<u>Page</u>
Executive Summary	1
System-Wide Assets	18
Pension Plan Valuation	22
Tier 1/Tier 2	23
OPSRP	44
Retiree Healthcare Valuation	53
Accounting / CAFR Exhibits	64
Data Exhibits	76
Actuarial Methods and Assumptions.....	95
Tier 1/Tier 2	96
OPSRP	106
Summary of Plan Provisions	109
Risk Disclosure	119
Glossary	124

Executive Summary

Executive Summary

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

- Present Milliman’s actuarial estimates of the system-wide liabilities and expenses of the Oregon Public Employees Retirement System (PERS), including pension benefits provided through Tier 1/Tier 2 and the Oregon Public Service Retirement Plan (OPSRP), and retiree medical benefits provided through the Retiree Health Insurance Account (RHIA) and the Retiree Health Insurance Premium Account (RHIPA), as of December 31, 2019 for PERS to incorporate, as PERS deems appropriate, in its financial statements; and
- Provide information on system-wide average employer contribution rates and employer contribution rates for the School District rate pool and the State and Local Government Rate Pool (SLGRP) for the biennium beginning July 1, 2021.

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

Summarizing a key result of this report, the system-average collared “net” employer contribution rate for the 2021-2023 biennium decreased by less than 1% of payroll compared to the rate currently in effect for the 2019-2021 biennium. The decrease is primarily due to changes made by Senate Bill 1049 (discussed below), which was passed in June 2019. Further discussion and explanation of the change in collared rates can be found in our July 2020 presentation materials to the PERS Board.

For more information on projections of future rate increases, we encourage readers of this report to review our financial modeling presentations to the PERS Board. The most recent such presentation was given at the December 2019 PERS Board meeting.

Projected Benefit Payments and the Fundamental Cost Equation

The actuarial liabilities contained in this report are calculated from a projection of benefit payments. This projection reflects the current plan provisions, assumptions, and demographic information documented herein. The stream of projected future benefit payments is converted to a net present value as of the valuation date based on the valuation’s investment return assumption, which currently is 7.20%. The total net present value is then assigned to past, present, and future service according to the actuarial cost method. The portion assigned to the past is called the **actuarial accrued liability**¹, while the portion assigned to the current year is referred to as the **normal cost**.

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

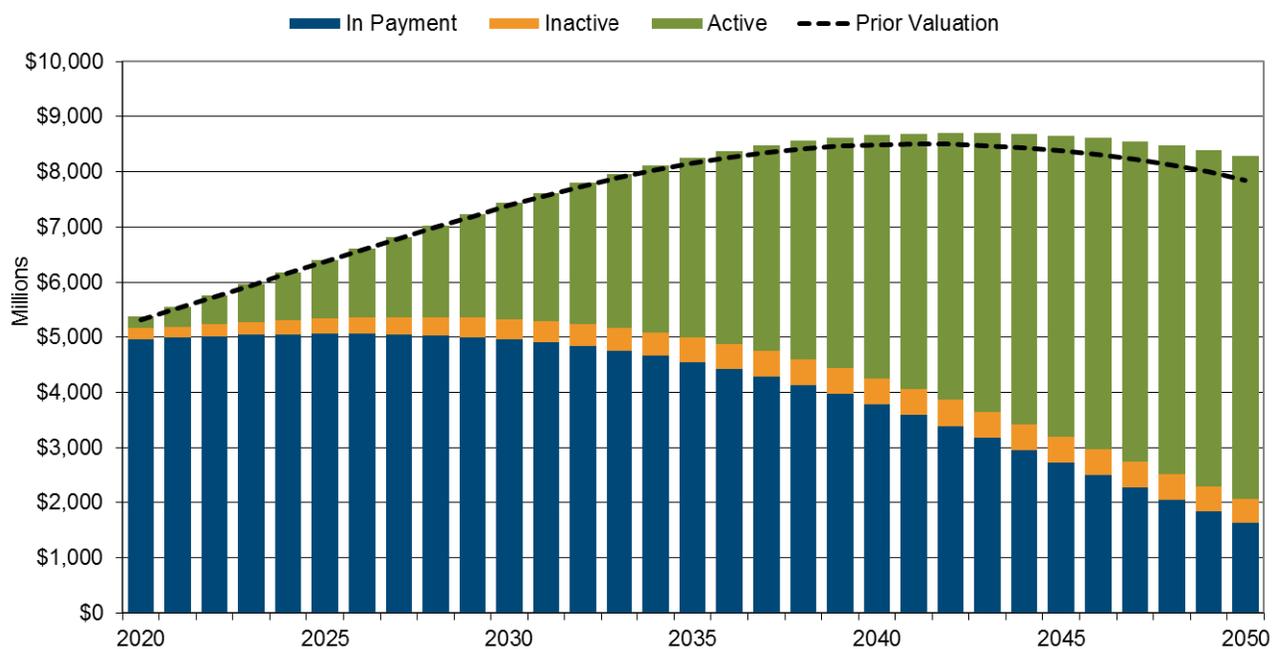
$$\text{Benefits} + \text{Expenses} = \text{Contributions} + \text{Investment Earnings}$$

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

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

The graph below illustrates projected benefit payments from the System calculated in both the current valuation and the prior valuation, organized by member status as of the actuarial valuation date. The graph includes the estimated effects on projected benefits of anticipated future service by current active members, including the assumed effects of future salary increases. The graph does not include expected benefit payments for members hired after the valuation date. The dotted line illustrates the shape of the graph from the prior valuation, which was performed as of December 31, 2018. As shown in the graph, there was little change in the projected benefits calculated in the current valuation.

Tier 1/Tier 2 & OPSRP Expected Benefit Payments
by status as of 12/31/2019



Retirement System Risks

Oregon PERS, like all defined benefit plans, 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 this report titled *Risk Disclosure* discusses the System’s risks in more detail. In addition, our annual financial modeling work provides analysis of the effect of different possible future experience with a key source of risk: future investment performance.

Employer Contribution Rates

Pension Contribution Rates

This report presents system average employer contribution rates calculated as of December 31, 2019. When adopted by the PERS Board, the employer contribution rates presented will be first effective July 1, 2021. The December 31, 2017 valuation presented the employer contribution rates effective from July 1, 2019 through June 30, 2021 that were adopted on October 5, 2018 by the PERS Board.

Employer pension contribution rates consist of a normal cost rate and a rate to amortize the Unfunded Accrued Liability (UAL). Normal cost rates are calculated and charged separately to the Tier 1/Tier 2, OPSRP general service and OPSRP police and fire payrolls. UAL rates are calculated separately for Tier 1/Tier 2 and OPSRP, but each UAL rate so developed is then charged across all payrolls. Rates for individual employers are adjusted if the employer maintains a side account or has a **pre-SLGRP liability or surplus**. The table below compares the average employer contribution rates for each type of payroll calculated for this valuation to the rates in effect from July 1, 2019 through June 30, 2021. In the table below, redirected member contributions under Senate Bill 1049 fund a portion of the normal cost rate effective July 1, 2021, and serve as a partial offset to the employer contribution rate otherwise payable absent that redirection.

Collared Pension Contribution Rates (Excludes IAP)						
Payroll	Effective July 1, 2021			Effective July 1, 2019		
	Tier 1/Tier 2	OPSRP General Service	OPSRP Police & Fire	Tier 1/Tier 2	OPSRP General Service	OPSRP Police & Fire
Normal Cost Rate	14.92%	8.64%	13.00%	15.27%	8.40%	13.03%
Tier 1/Tier 2 UAL Rate ¹	13.04%	13.04%	13.04%	12.19%	12.19%	12.19%
OPSRP UAL Rate	1.69%	1.69%	1.69%	1.45%	1.45%	1.45%
Total Pension Rate	29.65%	23.37%	27.73%	28.91%	22.04%	26.67%
Average Adjustment ²	(6.64%)	(6.64%)	(6.64%)	(6.91%)	(6.91%)	(6.91%)
Member Redirect Offset ³	(2.45%)	(0.70%)	(0.70%)	N/A	N/A	N/A
Net Employer Pension Rate	20.56%	16.03%	20.39%	22.00%	15.13%	19.76%

¹ Includes Multnomah Fire District #10

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

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 beginning July 1, 2021. 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.

Average collared UAL rates calculated in this valuation increased compared to the contribution rates calculated in the December 31, 2017 valuation, which produced rates effective July 1, 2019. This is primarily due to continued systematic UAL rate increases via the rate collar methodology, the mechanics of which are detailed later in this report. The Tier 1/Tier 2 UAL rate effective July 1, 2021 reflects a reamortization of the Tier 1/Tier 2 UAL over 22 years, as directed by Senate Bill 1049. The reamortization resulted in smaller increase in the UAL rate, but means the UAL rate will be expected to be paid over a longer period of time, if all assumptions are met. A portion of the Total Pension Rate for each payroll category will be paid by the redirected member contributions, as shown in the table.

Pension contribution rates differ for each Tier 1/Tier 2 rate pool. This report calculates the specific rates for each rate pool. Tier 1/Tier 2 rates for independent employers (employers that do not participate in a Tier 1/Tier 2 rate pool) are calculated in separate reports for each employer. Changes from biennium to biennium in pension contribution rates for each rate pool (or independent employer) are confined to a **rate collar** depending on **funded status**. The table below shows the employer pension contribution rates for each Tier 1/Tier 2 rate pool calculated in this valuation compared to the rates in effect as of July 1, 2019, along with the average adjustment to those rates for side account rate offsets and for pre-SLGRP and Transition Liability/(Surplus) charges and credits and the effect of the offset for redirected member contributions.

Tier 1/Tier 2 Collared Pension Contribution Rates (Excludes IAP, OPSRP UAL Rates)				
	Effective July 1, 2021		Effective July 1, 2019	
	SLGRP	School Districts	SLGRP	School Districts
Tier 1/Tier 2 Normal Cost Rate	15.41%	13.45%	15.83%	13.79%
Tier 1/Tier 2 UAL Rate ¹	12.67%	14.09%	10.43%	16.73%
Total Tier 1/Tier 2 Pension Rate²	28.08%	27.54%	26.26%	30.52%
Average Adjustment ³	(5.68%)	(9.93%)	(5.68%)	(10.66%)
Member Redirect Offset ⁴	(2.45%)	(2.45%)	N/A	N/A
Net Employer Tier 1/Tier 2 Pension Rate²	19.95%	15.16%	20.58%	19.86%

¹ Includes Multnomah Fire District #10

² Excludes OPSRP UAL rate, which is also charged on Tier 1/Tier 2 payroll

³ Adjustments shown are for side accounts and pre-SLGRP liabilities and are shown on a rate pool average basis. For this purpose, adjustments are not assumed to be limited when an individual employer reaches a 0% contribution rate.

⁴ Redirected member contributions under Senate Bill 1049 (2.50% of payroll for Tier 1/Tier 2) will offset employer contribution rates beginning July 1, 2021. 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.

The Tier 1/Tier 2 contribution rates shown here are after reflecting the effects of the rate collar. In recent rate-setting valuations, due to the impact of the *Moro* decision and assumption changes (primarily lower investment return), both the SLGRP and the School District rate pool had “before collar” (or “uncollared”) contribution rates that exceeded the maximum single biennium rate increase allowed by the collar. In the December 31, 2019 valuation, the contribution rate increases calculated for both the SLGRP and the School District rate pool are no longer limited by the collar, as shown below. In general, any contribution rate increases deferred by the rate collar will be reflected in future rate-setting periods. For both the SLGRP and School District pools, since the rate collar is not limiting the contribution rate calculated in this valuation, there currently are not any deferred increases beyond the July 1, 2021 contribution rates shown in this valuation. As noted in the table above, the “average adjustment” in the table below quantifies the effects of side accounts and pre-SLGRP liabilities on a rate pool average basis.

Collar Impact on Tier 1/Tier 2 Pension Contribution Rates (Excludes IAP, OPSRP UAL Rates)		
	Effective July 1, 2021	
	SLGRP	School Districts
Total Tier 1/Tier 2 Pension Rate Before Collar¹	28.08%	27.54%
Collar Adjustment	0.00%	0.00%
Total Tier 1/Tier 2 Pension Rate After Collar¹	28.08%	27.54%
Average Adjustment	(5.68%)	(9.93%)
Member Redirect Offset	(2.45%)	(2.45%)
Net Employer Tier 1/Tier 2 Pension Rate¹	19.95%	15.16%

¹ Excludes OPSRP UAL rate, which is also charged on Tier 1/Tier 2 payroll

Retiree Healthcare Contribution Rates

In addition to the pension contribution rates, all employers contribute to the Retirement Health Insurance Account (RHIA). Further, State Agencies and State Judiciary also contribute to the Retiree Health Insurance Premium Account (RHIPA). Only Tier 1 and Tier 2 members are eligible for these benefits, so the normal cost rates are only charged to Tier 1/Tier 2 payroll, but the UAL rates are charged to all payrolls. For each type of payroll used in this valuation the table below compares the employer contribution rates calculated in this valuation to the rates in effect from July 1, 2019 through June 30, 2021. The funded status for both retiree healthcare programs has historically lagged those of the defined benefit pension programs. In response to this, the UAL on the retiree healthcare programs is amortized over a ten-year period, which is shorter than the pension program amortization periods, in an effort to more rapidly improve funded status. Funded status for both programs have materially improved since the amortization change was implemented, with the funded status for the larger RHIA program above 100%. With its funded status over 100%, the RHIA UAL contribution rate was set to 0.00% of payroll for 2021-2023.

Retiree Healthcare Contribution Rates						
Payroll	Effective July 1, 2021			Effective July 1, 2019		
	Tier 1/Tier 2	OPSRP General Service	OPSRP Police & Fire	Tier 1/Tier 2	OPSRP General Service	OPSRP Police & Fire
RHIA Normal Cost Rate	0.05%	0.00%	0.00%	0.06%	0.00%	0.00%
RHIA UAL Rate	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total RHIA rate	0.05%	0.00%	0.00%	0.06%	0.00%	0.00%
RHIPA Normal Cost Rate	0.11%	0.00%	0.00%	0.12%	0.00%	0.00%
RHIPA UAL Rate	0.17%	0.17%	0.17%	0.27%	0.27%	0.27%
Total RHIPA rate	0.28%	0.17%	0.17%	0.39%	0.27%	0.27%

System-Average Total Pension Contribution Rates

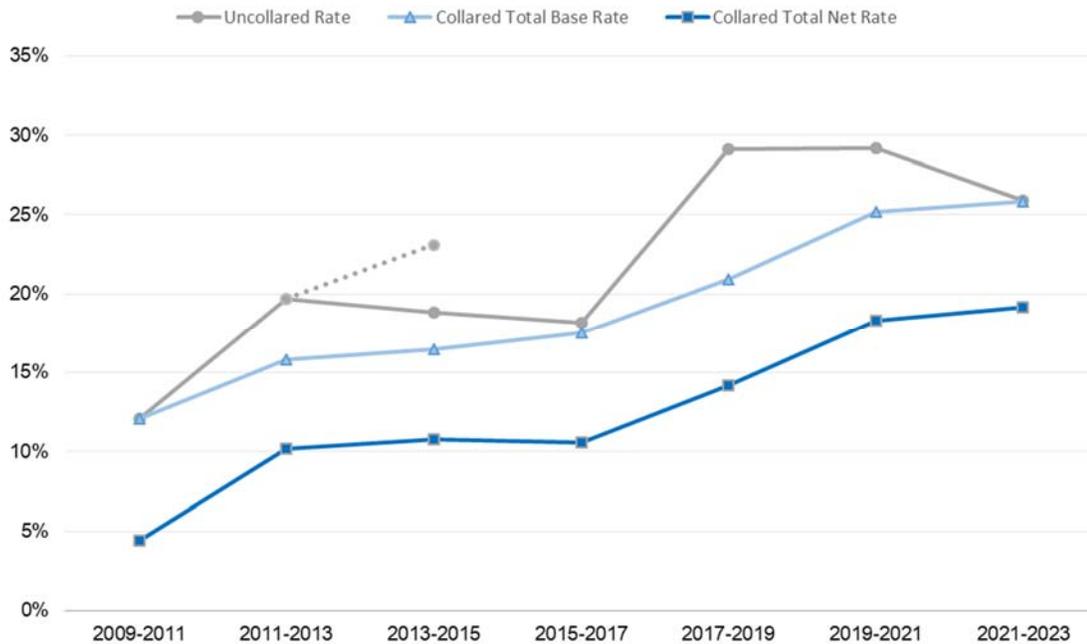
The system-wide weighted average pension contribution rates are shown below for each period since the July 1, 2009 to June 30, 2011 biennium, the rates for which were based on the December 31, 2007 rate-setting valuation. The rates shown reflect a blend of Tier 1/Tier 2 and OPSRP normal costs based on the relative proportions of system-wide payroll between those categories at the relevant rate-setting valuation. Rates shown are for illustration only, as no employer pays the system-wide average contribution rate, but instead each employer pays a rate determined based on its own experience or that of its rate pool.

The graph shows the average level of uncollared rates, collared base rates, and collared net rates over the depicted period. All rates are “Total Pension Rates”, and do not reflect the offset to employer contribution rates beginning with the July 1, 2021 to June 30, 2023 biennium due to redirected member contributions.

The uncollared rate is calculated based on the normal cost and UAL rates initially calculated in a valuation and is the starting point of the rate-setting process. If the uncollared rate is well above (or below) the current (collared) rate being paid, the contribution rate stabilization method (the “rate collar”) limits the increase (or decrease) in the rate paid in the next biennium. As a result, the collared rate may temporarily be below (or above) the uncollared rate, as the rate collar methodology systematically spreads large adjustments over multiple periods.

For an individual employer, collared base pension rates are adjusted for side account rate offsets to develop collared net pension rates paid by the employer. Side accounts are the result of employer supplemental deposits, often financed through a pension obligation bond. When a supplemental deposit is made, a side account is established (after any Transition Liabilities related to joining the SLGRP have been paid) and used to offset the otherwise required contribution rate. This occurs by having the employer pay part of its collared contribution rate via a transfer from its side account. As of December 31, 2019, the system has approximately \$5.5 billion in unamortized side accounts, slightly more than last year. At a system-average level, side accounts now offset employer contribution rates by 6.24% of payroll, but there is wide variation between employers.

For individual employers in the SLGRP, collared base pension rates are also adjusted for amortization charges (or credits) on pre-SLGRP liabilities (or assets). The average adjustment to individual employer rates due to side accounts and pre-SLGRP charges or credits is shown on a combined basis in the table on page 4.



The system-average total pension contribution rates shown above reflect significant recent events affecting the System:

- The 2009-2011 contribution rates were set before the financial crisis (based on the December 31, 2007 rate-setting valuation). Rates increased in 2011-2013, reflecting the asset losses during 2008 and 2009.
- The dotted line shown for the uncollared rate in 2013-2015 illustrates the basis for the initially adopted contribution rates for that biennium. However, legislative changes to the system made in 2013 (most notably to the COLA) reduced projected future benefits. At legislative direction, contribution rates were reduced to reflect the legislated changes, and these rates are shown in the solid lines for 2013-2015.
- The 2015 Oregon Supreme Court ruling in *Moro v. State of Oregon* reversed the majority of the effect of the 2013 legislation. The decision first affected contribution rates for the 2017-2019 biennium, leading to a significant increase in the uncollared rate and the first of multiple scheduled increases in the collared rate to reflect the change.
- The valuation assumed return was 8.00% for contribution rates effective through the 2013-2015 biennium. The rate was lowered to 7.75% for the 2015-2017 biennium, to 7.50% for the 2017-2019 biennium, and then to 7.20% for the 2019-2021 and 2021-2023 biennia. A lower assumed return increases the estimated present value of liabilities and increases near-term calculated contribution rates.
- The contribution rates based on this valuation are shown for the 2021-23 biennium. Based on this valuation at a system-average level, the increase in the collared total base rate is projected to result in a rate equal to the uncollared rate for employers comprising the substantial majority of PERS payroll.

As noted above, rates shown in the graph do not reflect the offset to employer contribution rates beginning with the July 1, 2021 to June 30, 2023 biennium due to redirected member contributions.

Limits on Future Pension Contribution Rates

The minimum and maximum of the sum of the Tier 1/Tier 2 Normal Cost Rate and the Tier 1/Tier 2 UAL Rate that can be effective July 1, 2021 for each Tier 1/Tier 2 rate pool (prior to adjustments discussed below) are shown in the next table. The limits are calculated and applied on an individual employer basis for independent employers. The contribution rates for employers in Tier 1/Tier 2 pooling arrangements (i.e., the SLGRP and School Districts rate pool) are adjusted from the rates of the pool to reflect side account rate offsets, charges or credits for pre-SLGRP liabilities, and adjustments to the normal cost rates of SLGRP employers to reflect the employer’s ratio of general service to police and fire payroll. These adjustments are not limited by the rate collar.

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

	Limits on Sum of Tier 1/Tier 2 Normal Cost and UAL Rates	
	Effective July 1, 2023	
	SLGRP	School Districts
Between 70% and 130% Funded		
Minimum Rate	22.46%	22.03%
Maximum Rate	33.70%	33.05%
Less than 60% or Greater than 140% Funded		
Minimum Rate	16.84%	16.52%
Maximum Rate	39.32%	38.56%

For Rate Pools funded between 60% and 70% or between 130% and 140% the limits vary linearly between the rates shown above. Rates shown exclude OPSRP UAL rate, which is also charged on Tier 1/Tier 2 payroll

Funded Status

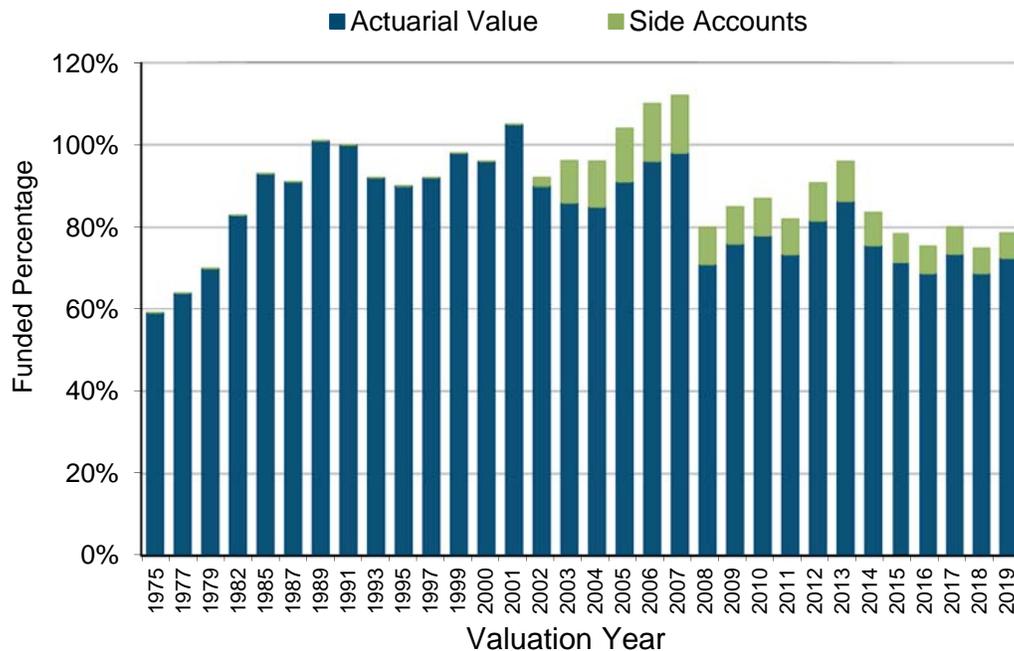
The table below shows the funded status of the various pension rate pools both on the basis used to calculate the contribution rate for each rate pool and after adjustment for side accounts (assuming side accounts offset Tier 1/Tier 2 liabilities). For this exhibit, all independent employers, including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

	SLGRP	School Districts	Independent Employers	OPSRP	Pension System Totals ¹
December 31, 2019					
Actuarial accrued liability	\$44,122.1	\$30,274.5	\$6,916.0	\$8,082.2	\$89,445.7
Actuarial value of assets	\$31,384.1	\$22,394.1	\$4,964.6	\$6,190.4	\$64,842.2
Funded status	71.1%	74.0%	71.8%	76.6%	72.5%
Side accounts	\$2,675.9	\$2,697.4	\$96.7	\$0.0	\$5,470.0
Funded status reflecting side accounts	77.2%	82.9%	73.2%	76.6%	78.6%
December 31, 2018					
Actuarial accrued liability	\$43,149.3	\$29,898.4	\$6,736.3	\$6,738.0	\$86,574.7
Actuarial value of assets	\$29,383.7	\$20,846.8	\$4,673.1	\$4,783.0	\$59,593.0
Funded status	68.1%	69.7%	69.4%	71.0%	68.8%
Side accounts	\$2,415.1	\$2,711.0	\$83.1	\$0.0	\$5,209.3
Funded status reflecting side accounts	73.7%	78.8%	70.6%	71.0%	74.9%

Amounts in millions

¹ Includes Multnomah Fire District #10

As shown in the graph below, the funded status of the system generally improved until the market decline of 2000-2002. After the decline, funded status generally improved for several years due to better than expected investment returns until 2008, when it decreased significantly due to investment losses. Funded status then improved through the December 31, 2013 valuation due to legislative changes in plan provisions and investment gains during 2012 and 2013. Funded status declined in the December 31, 2014 valuation due to the combined effects of the *Moro* decision and assumption changes. It continued decreasing in subsequent years due to the combined effects of investment losses and adoption of a lower assumed rate of return, then improved in the December 31, 2017 valuation due to 2017 investment gains, decreased in the December 31, 2018 valuation due to lower than expected investment returns in 2018, and increased in the current valuation due to 2019 investment gains.



The retiree medical benefits are funded using a 401(h) account within the pension trust. The table below shows the funded status of the retiree medical programs. The funded status of the RHIA and RHIPA programs improved since the prior valuation due the effects of employer contributions and actual member plan coverage election experience.

	December 31, 2019			December 31, 2018		
	RHIA	RHIPA	Total	RHIA	RHIPA	Total
Actuarial accrued liability	\$403.9	\$59.3	\$463.2	\$411.7	\$62.7	\$474.4
Actuarial value of assets	\$644.1	\$51.9	\$696.0	\$570.7	\$38.5	\$609.2
Funded status	159.5%	87.5%	150.3%	138.6%	61.3%	128.4%

Amounts in millions

Asset Changes

Since December 31, 2018, contributions (including supplemental deposits but excluding side account rate offset transfers) for pension benefits have increased assets by 3.1% while benefit payments decreased assets by about 7.4%. On the whole, assets increased by 8.7%, since the investment returns of approximately 13.0% of beginning of year market value were enough to offset the system’s negative non-investment-related cash flow position.

	Amount	Percentage of Beginning Market Value
Market Value of Assets, December 31, 2018	\$66,537.2	
Contributions	2,073.5	3.1%
Investment Income (less administrative expenses)	8,643.8	13.0%
Benefit Payments	(4,955.8)	(7.4%)
Market Value of Assets, December 31, 2019	\$72,298.6	108.7%

Amounts in millions

The Tier 1 Rate Guarantee Reserve that is used to pay for the interest crediting rate guarantee on active Tier 1 member accounts when actual investment earnings are below the assumed rate has increased from a reserve of \$258 million as of December 31, 2018 to a reserve of \$492 million as of December 31, 2019 due to investment performance and Tier 1 retirement patterns in 2019. Tier 1 non-retired member accounts that are linked to the Rate Guarantee Reserve decreased from \$3.8 billion on December 31, 2018 to \$3.4 billion on December 31, 2019 due to retirements during the year of Tier 1 active members.

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

Liability Changes

Since December 31, 2018, the system-wide actuarial accrued liability has increased primarily due to interest on the liability as current active members get closer to retirement. The normal cost for 2019, or the present value of projected future benefits for active members allocated to that year of service, was about one-quarter of the value of benefits paid out during the year. The remaining increase in the actuarial accrued liability was attributable to demographic experience, which includes actual experience differing from assumption, data corrections, and the effect of new members joining the system during the year. The largest demographic experience effects in descending order of magnitude resulted from pay increases differing from assumption, active retirement levels differing from assumption, new members entering the system, and interest crediting on member account balances differing from assumption.

	Amount	Percentage of Beginning AAL
Actuarial Accrued Liability, December 31, 2018	\$87,049.1	
Normal Cost	1,207.1	1.4%
Benefit Payments	(4,955.8)	(5.7%)
Interest	6,132.6	7.0%
Assumption & Method Changes	0.0	0.0%
Plan Changes	0.0	0.0%
Demographic Experience	475.9	0.5%
Actuarial Accrued Liability, December 31, 2019	\$89,909.0	103.3%

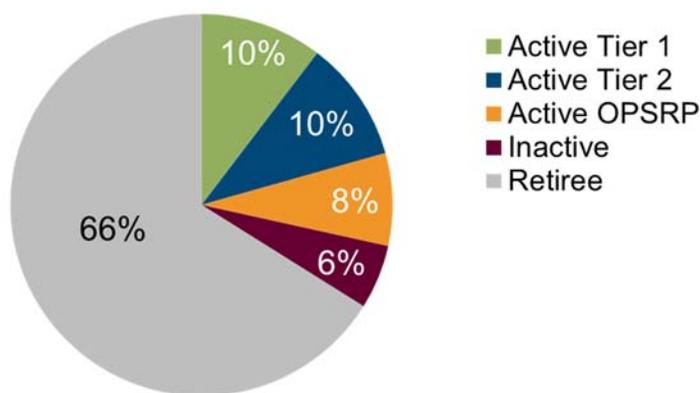
Amounts in millions

The Oregon Public Employees Retirement System is a mature system. There are currently 1.18 active members in the system for every annuitant (including retired members and beneficiaries). By comparison, the average ratio in NASRA’s December 2019 Public Fund Survey is 1.35. Since contributions to the system are based on active payroll, a lower active-to-annuitant ratio generally means there will be a larger change in contribution rates for any given level of actuarial gain or loss, such as for investment experience varying from assumption by a certain percentage, compared to peer systems. The ratio of active members to annuitants may decline further as a significant portion of active members are currently eligible to retire.

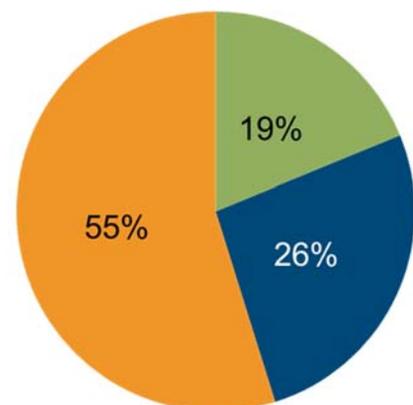
The left-hand chart below illustrates the system’s actuarial accrued liability by member pension tier and status. Actuarial accrued liability for active members is divided fairly evenly amongst tiers, but 72% of the system’s actuarial accrued liability is due to members who are no longer actively working in covered employment.

The right-hand chart below illustrates the system’s normal cost. Active Tier 2 members account for 26% of the system’s normal cost compared to about 10% of the system’s actuarial accrued liability. Active OPSRP members account for 55% of the normal cost compared to just 8% of the actuarial accrued liability.

Actuarial Accrued Liability by Member Category



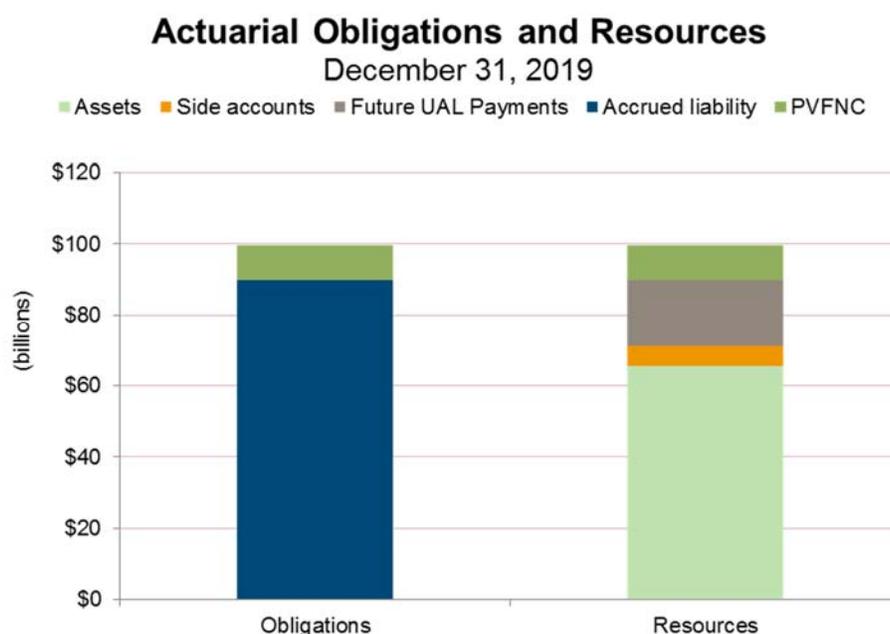
Normal Cost by Member Category



Actuarial Obligations and Resources

The actuarial accrued liability discussed above is the present value of benefits allocated to past service by the actuarial cost allocation method. The **total actuarial present value of benefits** (also referred to as “total liability”) is a broader measure that reflects both the actuarial accrued liability and the **present value of future normal cost (PVFNC)** for current members. Conceptually, the total actuarial present value of benefits can be thought of as the total expected benefit obligation, in today’s dollars, associated with members as of the valuation date for service throughout their working careers, including assumed service subsequent to the valuation date. As of December 31, 2019, the total actuarial present value of benefits for the system was \$99.5 billion.

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



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

	Projected Valuation Payroll for Year Subsequent to Valuation Date	Present Value of Future Valuation Payroll ¹
Tier 1/Tier 2	\$3,873.9	\$22,407.8
OPSRP General Service	6,740.9	66,002.0
OPSRP Police & Fire	919.0	10,979.7
Total	\$11,533.7	\$99,389.5

Amounts in millions

¹ For members as of the valuation date.

Principal Valuation Results

A summary of principal valuation results from the current valuation and the prior valuation follows. Any changes in actuarial assumptions, methods or plan provisions between the two valuations are described after the summary. **Combined valuation payroll** is the projected Tier 1/Tier 2 payroll plus OPSRP payroll for the calendar year subsequent to the actuarial valuation date.

	Actuarial Valuation as of		Percent Change
	December 31, 2019	December 31, 2018	
Tier 1/Tier 2 Pension			
Actuarial accrued liability	\$81,363.5	\$79,836.8	2%
Actuarial value of assets	\$58,651.8	\$54,810.0	7%
Unfunded actuarial accrued liability	\$22,711.7	\$25,026.7	(9%)
Funded status	72%	69%	
UAL as a percentage of combined payroll	197%	231%	
Normal cost	\$578.1	\$619.3	(7%)
Tier 1/Tier 2 valuation payroll	\$3,873.9	\$4,076.1	(5%)
Normal cost rate	14.92%	15.19%	
OPSRP Pension			
Actuarial accrued liability	\$8,082.2	\$6,738.0	20%
Actuarial value of assets	\$6,190.4	\$4,783.0	29%
Unfunded actuarial accrued liability	\$1,891.8	\$1,955.0	(3%)
Funded status	77%	71%	
UAL as a percentage of combined payroll	16%	18%	
Normal cost	\$701.6	\$624.8	12%
OPSRP valuation payroll	\$7,659.8	\$6,775.9	13%
Normal cost rate	9.16%	9.22%	
Combined Pension			
Actuarial accrued liability	\$89,445.7	\$86,574.7	3%
Actuarial value of assets	\$64,842.2	\$59,593.0	9%
Unfunded actuarial accrued liability	\$24,603.5	\$26,981.7	(9%)
Funded status	72%	69%	
Combined valuation payroll	\$11,533.7	\$10,852.0	6%
UAL as a percentage of combined payroll	213%	249%	
Normal cost	\$1,279.6	\$1,244.1	3%
Combined valuation payroll	\$11,533.7	\$10,852.0	6%
Normal cost rate	11.09%	11.46%	

Amounts in millions

	Actuarial Valuation as of		
	December 31, 2019	December 31, 2018	Percent Change
RHIA			
Actuarial accrued liability	\$403.9	\$411.7	(2%)
Actuarial asset value	\$644.1	\$570.7	13%
Unfunded actuarial accrued liability	(\$240.3)	(\$159.1)	51%
Funded status	159%	139%	
Combined valuation payroll	\$11,533.7	\$10,852.0	6%
UAL as a percentage of payroll	(2%)	(1%)	
Normal cost	\$1.9	\$2.2	(10%)
Tier 1/Tier 2 valuation payroll	\$3,873.9	\$4,076.1	(5%)
Normal cost rate	0.05%	0.05%	
RHIPA			
Actuarial accrued liability	\$59.3	\$62.7	(5%)
Actuarial asset value	\$51.9	\$38.5	35%
Unfunded actuarial accrued liability	\$7.4	\$24.3	(69%)
Funded status	87%	61%	
Combined valuation payroll	\$3,479.8	\$3,211.6	8%
UAL as a percentage of payroll	0%	1%	
Normal cost	\$1.2	\$1.3	(7%)
Tier 1/Tier 2 valuation payroll	\$1,120.6	\$1,159.5	(3%)
Normal cost rate	0.11%	0.11%	

Amounts in millions

Data Summary

A brief summary of the data underlying the current and prior valuations follows. As shown below, the active member count increased about 2.3%, while the system’s total member population increased by about 2.4%. The data section of this report provides additional detail. State Judiciary is included in the Tier 1 counts.

	December 31, 2019				December 31, 2018
	Tier 1	Tier 2	OPSRP	Total	Total
Active Members					
Count	17,317	32,191	131,249	180,757	176,763
Average age	56.9	52.2	43.0	46.0	46.1
Average total service	26.5	18.8	6.7	10.7	10.9
Average prior year covered salary	\$84,259	\$76,946	\$55,279	\$61,914	\$59,632
Inactive Members¹					
Count	11,237	14,189	21,366	46,792	45,945
Average age	60.8	54.7	47.8	53.0	53.1
Average monthly deferred benefit	\$2,192	\$833	\$439	\$980	\$983
Retired Members and Beneficiaries¹					
Count	129,711	16,718	6,549	152,978	148,893
Average age	73.0	68.2	67.6	72.2	72.0
Average monthly benefit	\$2,995	\$1,138	\$550	\$2,687	\$2,634
Total Members	158,265	63,098	159,164	380,527	371,601

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

Effects of Changes

Effective with the December 31, 2019 actuarial valuation the following changes were made:

Assumption Changes

There were no changes to actuarial assumptions since the December 31, 2018 actuarial valuation.

Method Changes

There were no changes to actuarial methods since the December 31, 2018 actuarial valuation.

Plan Changes

There were no changes to plan provisions since the December 31, 2018 actuarial valuation.

System-Wide Assets

System-Wide Assets

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

	Tier 1/Tier 2	OPSRP	Side Accounts	Contingency and Capital Preservation Reserve	Rate Guarantee Reserve	RHIA and RHIPA	System Totals
Amount reported by PERS December 31, 2019	\$59,400.19	\$6,190.4	\$5,470.0	\$50.0	\$492.0	\$696.0	\$72,298.6
Adjustment for Recognized Transition Liability Receivable	(428.5)	0.0	0.0	0.0	0.0	0.0	(428.5)
Adjustment for Negative Rate Guarantee Reserve	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Pre-SLGRP Liabilities	(319.8)	0.0	0.0	0.0	0.0	0.0	(319.8)
December 31, 2019 Actuarial Value of Assets	\$58,651.8	\$6,190.4	\$5,470.0	\$50.0	\$492.0	\$696.0	\$71,550.3

Amounts in millions

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

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

In addition, pension assets are held in the Contingency Reserve, the Capital Preservation Reserve, and the Tier 1 Rate Guarantee Reserve (RGR). As shown below, at December 31, 2019 the RGR was in surplus status of \$492 million. It is possible for the RGR to be in deficit at its year-end measurement date, which occurred most recently at December 31, 2012. It is our understanding that if a RGR deficit arose and then persisted for five years, employers may be required to restore the Tier 1 Rate Guarantee Reserve.

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

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

Reconciliation of Pension and Retiree Healthcare Assets

The following table reconciles the changes in the system-wide assets from December 31, 2018 to December 31, 2019. The reconciliation of assets is provided by PERS.

	Tier 1/Tier 2	OPSRP	Side Accounts	Contingency Reserve	Capital Preservation Reserve	Rate Guarantee Reserve	RHIA and RHIPA	System Totals
Additions								
1. Contributions								
a. Employer	\$906.1	\$785.7	\$327.4	-	-	-	\$42.9	\$2,062.1
b. Transfer from side accounts ¹	\$739.4	-	(\$739.4)	-	-	-	-	-
c. Judge member contributions	\$1.9	-	-	-	-	-	-	\$1.9
d. Member service purchases	\$9.5	-	-	-	-	-	-	\$9.5
e. Total	\$1,656.9	\$785.7	(\$412.0)	-	-	-	\$42.9	\$2,073.5
2. Net investment income								
a. Transfers	-	-	-	-	-	-	-	-
b. From investments	\$7,026.7	\$672.7	\$672.9	-	-	\$234.4	\$82.0	\$8,688.7
c. Total	\$7,026.7	\$672.7	\$672.9	-	-	\$234.4	\$82.0	\$8,688.7
3. Other ²	\$1.3	\$0.0	-	-	-	-	-	\$1.3
4. Total additions	\$8,684.9	\$1,458.4	\$260.9	-	-	\$234.4	\$124.9	\$10,763.5
Deductions								
5. Retirement and survivor benefits	(\$4,863.0)	(\$42.6)	-	-	-	-	(\$36.4)	(\$4,942.1)
6. Death Benefits	(\$3.0)	-	-	-	-	-	-	(\$3.0)
7. Refund of contributions	(\$10.7)	-	-	-	-	-	-	(\$10.7)
9. Administrative expenses	(\$36.1)	(\$8.4)	(\$0.2)	-	-	-	(\$1.6)	(\$46.3)
10. Total deductions	(\$4,912.9)	(\$51.0)	(\$0.2)	-	-	-	(\$38.0)	(\$5,002.1)
11. Net change	\$3,772.1	\$1,407.4	\$260.8	-	-	\$234.4	\$86.8	\$5,761.5
12. Net assets held in trust for pension benefits								
a. Beginning of year	\$55,628.1	\$4,783.0	\$5,209.3	\$50.0	-	\$257.6	\$609.2	\$66,537.2
b. End of year	\$59,400.2	\$6,190.4	\$5,470.0	\$50.0	-	\$492.0	\$696.0	\$72,298.6

Amounts in millions

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

² Includes TRFA transfer from Metlife and adjustments by PERS.

Reconciliation of Side Accounts

Side accounts are established for employers who make supplemental payments (a lump sum payment in excess of the required employer contribution). For SLGRP employers, this supplemental payment is first applied toward the employer's Transition Liability, if any, and any excess is established in a Side Account. A reconciliation of the side accounts from December 31, 2018 to December 31, 2019, is shown below on a rate pool basis. For this exhibit, all independent employers are grouped together.

	SLGRP	School Districts	Independent Employers	System Totals
Side Accounts, December 31, 2018	\$2,415.1	\$2,711.0	\$83.1	\$5,209.3
Deposits during 2019	289.8	21.9	15.7	327.4
Interest	314.3	347.6	11.1	672.9
Administrative expenses	(0.1)	(0.1)	(0.0)	(0.2)
Transfers to employer reserves	(344.7)	(383.0)	(11.6)	(739.4)
Side Accounts, December 31, 2019	\$2,674.4	\$2,697.4	\$98.2	\$5,470.0
Side accounts for new SLGRP employers	1.5		(1.5)	0.0
Side Accounts, January 1, 2020	\$2,675.9	\$2,697.4	\$96.7	\$5,470.0

Amounts in millions

Development of Side Account Rate Relief

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period and expressing the result as a percentage of combined valuation payroll. For side accounts established on or before December 31, 2009, the fixed period ends December 31, 2027. For side accounts established 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. The table below shows the average rate relief attributable to side accounts for each rate pool. While results are shown at a rate pool level, the rate relief provided by side accounts varies from employer to employer.

	December 31, 2019			
	SLGRP	School Districts	Independent Employers	System Totals
1. Side Account	\$2,675.9	\$2,697.4	\$96.7	\$5,470.0
2. Combined valuation payroll	\$6,768.8	\$3,740.7	\$1,024.2	\$11,533.7
3. Average Amortization Factor ¹	7.919	7.260	8.510	7.605
4. Average Side Account Rate Relief (1. ÷ 2. ÷ 3.)	4.99%	9.93%	1.11%	6.24%

Amounts in millions

¹ Weighted average

Pension Plan Valuation

Tier 1/Tier 2 Pension Assets

Summary of Actuarial Value of Assets

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

	SLGRP	School Districts	Independent Employers	Tier 1/Tier 2 Totals ¹
December 31, 2019				
Member reserves	\$2,924.6	\$1,584.7	\$398.1	\$4,907.4
Employer reserves	17,348.1	12,291.4	2,777.7	32,307.2
Benefit in force reserves	11,431.3	8,518.0	1,788.9	21,757.1
Net outstanding pre-SLGRP liabilities	(319.8)			(319.8)
Total actuarial value of assets	\$31,384.1	\$22,394.1	\$4,964.6	\$58,651.8
December 31, 2018				
Member reserves	\$3,065.6	\$1,673.7	\$414.3	\$5,153.6
Employer reserves	15,371.1	10,589.4	2,491.0	28,337.7
Benefit in force reserves	11,292.8	8,583.7	1,767.8	21,664.5
Net outstanding pre-SLGRP liabilities	(345.7)			(345.7)
Total actuarial value of assets	\$29,383.7	\$20,846.8	\$4,673.1	\$54,810.0

Amounts in millions

¹ Includes Multnomah Fire District #10.

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

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

Reconciliation of Actuarial Value of Assets

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

	SLGRP	School Districts	Independent Employers	Tier 1/Tier 2 Totals ¹
Actuarial value of assets, December 31, 2018	\$29,383.7	\$20,846.8	\$4,673.1	\$54,810.0
Contributions				
Employer	\$567.9	\$303.9	\$101.3	\$973.1
Side account transfers	344.7	383.0	11.6	739.4
Member	0.0	0.0	1.9	1.9
Total contributions	\$912.7	\$686.9	\$114.8	\$1,714.4
Investment income	3,709.4	2,637.2	588.6	6,919.3
Benefit payments and expenses	(2,580.9)	(1,923.5)	(404.4)	(4,913.0)
Adjustments ²	(45.9)	146.7	(4.0)	119.5
Actuarial value of assets, December 31, 2019	\$31,378.9	\$22,394.1	\$4,968.1	\$58,650.1
Employers joining the SLGRP	5.2		(3.5)	1.7
Actuarial value of assets, January 1, 2020	\$31,384.1	\$22,394.1	\$4,964.6	\$58,651.8

Amounts in millions

¹ Includes Multnomah Fire District #10.

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

Employers Joining the SLGRP

Effective January 1, 2020, one independent employer joined the State & Local Government Rate Pool (SLGRP). The employer's experience through December 31, 2019 was maintained independently, but its liabilities and assets are included with the SLGRP in this report in order to develop contribution rates that will become effective July 1, 2021. The table below summarizes the changes to assets and liabilities for the SLGRP due to this employer joining the SLGRP. Note that, by design, the UAL as a percentage of payroll does not change for the SLGRP, ensuring the SLGRP's UAL rate is not affected by employers joining the pool. This is accomplished by calculating a Transition Liability/(Surplus) for each new employer joining the pool.

Tier 1/Tier 2 Pension	State & Local Government Rate Pool		
	December 31, 2019	Employers Joining Pool	January 1, 2020
Actuarial Accrued Liability			
Active Members			
Tier 1 General Service	\$4,499.1	\$0.0	\$4,499.1
Tier 1 Police & Fire	907.7	0.9	908.6
Tier 1 Total	5,406.7	0.9	5,407.7
Tier 2 General Service	3,739.8	0.2	3,740.0
Tier 2 Police & Fire	1,487.6	0.9	1,488.5
Tier 2 Total	5,227.4	1.1	5,228.5
Total Active Members	\$10,634.2	\$2.0	\$10,636.2
Inactive Members	2,713.8	0.4	2,714.2
Retired Members and Beneficiaries	30,766.9	4.9	30,771.7
Total Actuarial Accrued Liability	\$44,114.9	\$7.2	\$44,122.1
Actuarial Value of Assets			
Member reserves	\$2,924.4	\$0.2	\$2,924.6
Employer reserves	17,346.6	1.5	17,348.1
Benefit in force reserves	11,429.5	1.8	11,431.3
Net outstanding pre-SLGRP liabilities	(321.5)	1.7	(319.8)
Total Actuarial Value of Assets	\$31,378.9	\$5.2	\$31,384.1
Unfunded Accrued Liability	\$12,735.9	\$2.1	\$12,738.0
Funded Percentage	71.1%	71.7%	71.1%
Combined Valuation Payroll	\$6,767.7	\$1.1	\$6,768.8
Unfunded Accrued Liability as % of Combined Valuation Payroll	188.2%	188.2%	188.2%

Amounts in millions

Outstanding Balance of Pre-SLGRP Liabilities

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

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

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

	State and Community Colleges	Local Government Rate Pool	Transition	Total
Pre-SLGRP liability/(surplus), January 1, 2019	\$448.8	(\$191.8)	(\$602.7)	(\$345.7)
Employer contributions	(67.6)	28.6	87.8	48.9
Supplemental payments	0.0	0.0	(3.3)	(3.3)
Interest	27.4	(11.7)	(37.1)	(21.4)
Employer mergers/adjustments	0.0	0.0	0.0	0.0
Pre-SLGRP liability/(surplus), December 31, 2019	\$408.7	(\$174.9)	(\$555.2)	(\$321.5)
Employers joining the SLGRP			1.7	1.7
Pre-SLGRP liability/(surplus), January 1, 2020	\$408.7	(\$174.9)	(\$553.5)	(\$319.8)

Amounts in millions

Tier 1/Tier 2 Pension Liabilities

Normal Cost

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

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

	December 31, 2019	December 31, 2018	Percent Change
Normal Cost			
Service Retirement	\$399.8	\$429.0	(6.8%)
Withdrawal	128.5	139.3	(7.8%)
Duty Disability	2.5	2.7	(6.7%)
Nonduty Disability	11.4	12.1	(5.3%)
Death	3.3	3.7	(10.5%)
Administrative Expenses	32.5	32.5	(0.0%)
Total Normal Cost	\$578.1	\$619.3	(6.7%)

Amounts in millions

Reconciliation of Change in Normal Cost

The decrease in normal cost since the prior valuation is primarily due to the reduction in active Tier 1/Tier 2 members as members retire from the closed Tier 1/Tier 2 group.

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

	Tier 1/Tier 2 Pension
Normal Cost, December 31, 2018	\$619.3
Expected increase (decrease)	(39.9)
Assumption and method changes	0.0
Plan changes	0.0
Deviations from expected experience	
Pay increases	\$1.6
Interest crediting experience	3.1
All other sources	(6.1)
Total demographic (gains) and losses	(\$1.3)
Normal Cost, December 31, 2019	\$578.1

Amounts in millions

Summary of Normal Cost by Group and Tier

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

	December 31, 2019			December 31, 2018		Percent Change
	SLGRP	School Districts	Independent Employers	Tier 1/ Tier 2 Totals	Tier 1/ Tier 2 Totals	
Normal Cost¹						
Tier 1 General Service	\$114.9	\$71.5	\$18.3	\$204.8	\$232.1	(11.8%)
Tier 2 General Service	135.0	106.8	16.8	258.6	264.5	(2.2%)
Tier 1 Police & Fire	26.7	0.3	9.0	36.0	43.5	(17.3%)
Tier 2 Police & Fire	60.0	0.4	18.4	78.7	79.3	(0.7%)
Total Normal Cost	\$336.6	\$178.9	\$62.6	\$578.1	\$619.3	(6.7%)

Amounts in millions

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

Actuarial Accrued Liability

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

	December 31, 2019	December 31, 2018	Percent Change
Active Members	\$18,446.1	\$18,849.3	(2.1%)
Inactive Members	4,349.7	4,452.6	(2.3%)
Retired Members and Beneficiaries	58,567.8	56,534.9	3.6%
Total Actuarial Accrued Liability	\$81,363.5	\$79,836.8	1.9%

Amounts in millions

Actuarial Accrued Liability

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

	December 31, 2019			December 31, 2018		Percent Change
	SLGRP	School Districts	Independent Employers	Tier 1 / Tier 2 Totals ¹	Tier 1 / Tier 2 Totals ¹	
Active Members						
Tier 1 General Service	\$4,499.1	\$2,985.2	\$532.1	\$8,016.3	\$8,673.5	(7.6%)
Tier 1 Police & Fire	907.7	5.3	333.7	1,246.7	1,447.6	(13.9%)
Tier 1 Total	5,406.7	2,990.4	865.8	9,263.0	10,121.1	(8.5%)
Tier 2 General Service	3,739.8	3,006.2	480.7	7,226.7	6,888.5	4.9%
Tier 2 Police & Fire	1,487.6	6.0	462.7	1,956.4	1,839.7	6.3%
Tier 2 Total	5,227.4	3,012.3	943.4	9,183.1	8,728.2	5.2%
Total Active Members	\$10,634.2	\$6,002.7	\$1,809.2	\$18,446.0	\$18,849.3	(2.1%)
Inactive Members	2,713.8	1,342.1	293.8	4,349.7	4,452.6	(2.3%)
Retired Members and Beneficiaries	30,766.9	22,929.7	4,820.3	58,567.8	56,534.9	3.6%
Total Tier 1/ Tier 2 Pension Liability, December 31,	\$44,114.9	\$30,274.5	\$6,923.3	\$81,363.5	\$79,836.8	1.9%
Employers joining the SLGRP	7.2		(7.2)	0.0	0.0	
Total Tier 1/ Tier 2 Pension Liability, January 1,	\$44,122.1	\$30,274.5	\$6,916.0	\$81,363.5	\$79,836.8	1.9%

Amounts in millions

¹ Includes Multnomah Fire District #10.



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Reconciliation of Change in Actuarial Accrued Liability

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

The table below reconciles the actuarial accrued liability from the last valuation to this valuation.

	Tier 1/Tier 2 Pension
Actuarial Accrued Liability December 31, 2018	\$79,836.8
Expected change	1,303.9
Assumption and method changes	0.0
Plan changes	0.0
Deviations from expected experience	
Retirements from active status	\$115.7
Disability retirements	3.3
Active mortality and withdrawal	14.6
Pay increases	75.5
Interest crediting experience	85.7
Inactive mortality	(7.9)
Data corrections	13.6
Other	(82.0)
Total demographic (gains) and losses	\$218.6
New Entrants	4.3
Actuarial Accrued Liability December 31, 2019	\$81,363.5

Amounts in millions

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

Calculation of UAL

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

	SLGRP	School Districts	Independent Employers	Tier 1 / Tier 2 Totals ¹
December 31, 2019				
1. Actuarial accrued liability	\$44,122.1	\$30,274.5	\$6,916.0	\$81,363.5
2. Actuarial value of assets	\$31,384.1	\$22,394.1	\$4,964.6	\$58,651.8
3. Unfunded accrued liability (2. - 1.)	\$12,738.0	\$7,880.4	\$1,951.4	\$22,711.7
4. Funded percentage (2. ÷ 1.)	71.1%	74.0%	71.8%	72.1%
5. Combined valuation payroll	\$6,768.8	\$3,740.7	\$1,024.2	\$11,533.7
6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.)	188.2%	210.7%	190.5%	196.9%
December 31, 2018				
1. Actuarial accrued liability	\$43,149.3	\$29,898.4	\$6,736.3	\$79,836.8
2. Actuarial value of assets	\$29,383.7	\$20,846.8	\$4,673.1	\$54,810.0
3. Unfunded accrued liability (2. - 1.)	\$13,765.6	\$9,051.6	\$2,063.2	\$25,026.7
4. Funded percentage (2. ÷ 1.)	68.1%	69.7%	69.4%	68.7%
5. Combined valuation payroll	\$6,346.1	\$3,543.5	\$962.4	\$10,852.0
6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.)	216.9%	255.4%	214.4%	230.6%

Amounts in millions

¹ Includes Multnomah Fire District #10.

Reconciliation of UAL Bases

Beginning with the December 31, 2013 actuarial valuation, the PERS Board established a policy to amortize the Tier 1/Tier 2 UAL over a 20-year period, with each subsequent odd-year valuation establishing a new 20-year closed-period amortization schedule for new Tier 1/Tier 2 UAL amounts 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. As part of Senate Bill 1049, passed in 2019, the Legislature directed the PERS Board to enact a one-time re-amortization of Tier 1/Tier 2 UAL over 22 years. This means that, effective with the December 31, 2019 rate-setting valuation, the entire unamortized Tier 1/Tier 2 UAL for each rate pool and independent employer will be re-amortized over a 22 year period as a level percentage of projected future payroll. For the December 31, 2021 and subsequent odd-year valuations, the PERS Board will again have authority to set the amortization schedule. It is anticipated that the policy of 20-year closed-period amortization schedules will be reintroduced at that point.

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

SLGRP					
Amortization Base	UAL December 31, 2018	Payment	Interest	UAL December 31, 2019	Next Year's Payment
December 31, 2019	N/A	N/A	N/A	12,738.0	843.2
Total				\$12,738.0	\$843.2

Amounts in millions

School Districts					
Amortization Base	UAL December 31, 2018	Payment	Interest	UAL December 31, 2019	Next Year's Payment
December 31, 2019	N/A	N/A	N/A	7,880.4	521.7
Total				\$7,880.4	\$521.7

Amounts in millions

Actuarial Gain or Loss since Prior Valuation

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

The table below shows the development of the actuarial gain (or loss) for the Tier 1/Tier 2 pension benefits for the year ending December 31, 2019. For this exhibit, all independent employers, including State Judiciary, have been grouped together.

	SLGRP	School District	Independent Employers	Tier 1/Tier 2 Totals ¹
1. Expected actuarial accrued liability				
a. Actuarial accrued liability at January 1, 2019	\$43,149.3	\$29,898.4	\$6,736.3	\$79,836.8
b. Normal cost (excluding expenses) at January 1, 2019	343.9	180.9	62.0	586.8
c. Benefit payments (excluding expenses) for year ending December 31, 2019	(2,561.9)	(1,909.3)	(401.4)	(4,876.7)
d. Interest	3,026.9	2,090.5	472.8	5,593.8
e. Expected actuarial accrued liability before changes (a. + b. + c. + d.)	\$43,958.2	\$30,260.5	\$6,869.8	\$81,140.6
f. Change in actuarial accrued liability at December 31, 2019, due to assumption, method, and plan changes	0.0	0.0	0.0	0.0
g. Expected actuarial accrued liability at December 31, 2019 (e. + f.)	\$43,958.2	\$30,260.5	\$6,869.8	\$81,140.6
2. Actuarial accrued liability at December 31, 2019	\$44,114.9	\$30,274.5	\$6,923.3	\$81,363.5
3. Liability gain/(loss) (1.g. - 2)	(\$156.6)	(\$14.0)	(\$53.5)	(\$222.9)
4. Expected actuarial value of assets				
a. Actuarial value of assets at January 1, 2019	\$29,383.7	\$20,846.8	\$4,673.1	\$54,810.0
b. Actual contributions for 2019	912.7	686.9	114.8	1,714.4
c. Benefit payments and expenses for year ending December 31, 2019	(2,580.9)	(1,923.5)	(404.4)	(4,913.0)
d. Assumed investment return	2,055.6	1,456.5	326.0	3,831.2
e. Expected actuarial value of assets before changes (a. + b. + c. + d.)	\$29,771.1	\$21,066.7	\$4,709.6	\$55,442.5
f. Change in actuarial value of assets at December 31, 2019, due to assumption changes	0.0	0.0	0.0	0.0
g. Expected actuarial value of assets at December 31, 2019 (e. + f.)	\$29,771.1	\$21,066.7	\$4,709.6	\$55,442.5
5. Actuarial value of assets as of December 31, 2019	\$31,378.9	\$22,394.1	\$4,968.1	\$58,650.1
6. Asset gain/(loss) (5. - 4.g.)	\$1,607.9	\$1,327.4	\$258.6	\$3,207.6
7. Net actuarial gain/(loss) (3. + 6.)	\$1,451.2	\$1,313.4	\$205.1	\$2,984.7

Amounts in millions

¹ Includes Multnomah Fire District #10.

Reconciliation of the UAL

The table below reconciles the UAL from the last valuation to this valuation. For this exhibit, all independent employers, including State Judiciary, have been grouped together.

	SLGRP	School Districts	Independent Employers	Tier 1 / Tier 2 Totals ¹
UAL, December 31, 2018	\$13,765.6	\$9,051.6	\$2,063.2	\$25,026.7
Normal cost	343.9	180.9	62.0	586.8
Administrative expenses	19.1	14.2	3.0	36.3
Contributions	(912.7)	(686.9)	(114.8)	(1,714.4)
Liability (gain) or loss	156.6	14.0	53.5	222.9
Asset (gain) or loss	(1,607.9)	(1,327.4)	(258.6)	(3,207.6)
Assumption, method, and plan changes	0.0	0.0	0.0	0.0
Interest at 7.20%	971.3	634.0	146.8	1,762.6
UAL, December 31, 2019	\$12,735.9	\$7,880.4	\$1,955.1	\$22,713.4
Employers joining SLGRP	2.1		(3.7)	(1.7)
UAL, January 1, 2020	\$12,738.0	\$7,880.4	\$1,951.4	\$22,711.7

Amounts in millions

¹ Includes Multnomah Fire District #10.

Tier 1/Tier 2 Pension Contribution Rate Development

Normal Cost Rates

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

	December 31, 2019	December 31, 2018	Percent Change
Normal Cost			
a. Service Retirement	\$399.8	\$429.0	(6.8%)
b. Withdrawal	128.5	139.3	(7.8%)
c. Duty Disability	2.5	2.7	(6.7%)
d. Nonduty Disability	11.4	12.1	(5.3%)
e. Death	3.3	3.7	(10.5%)
f. Administrative Expenses	32.5	32.5	(0.0%)
g. Total Normal Cost	\$578.1	\$619.3	(6.7%)
Tier 1/Tier 2 Valuation Payroll	\$3,873.9	\$4,076.1	(5.0%)
Average Normal Cost Rate			
a. Service Retirement	10.32%	10.53%	
b. Withdrawal	3.32%	3.42%	
c. Duty Disability	0.06%	0.07%	
d. Nonduty Disability	0.29%	0.30%	
e. Death	0.09%	0.09%	
f. Administrative Expenses	0.84%	0.80%	
g. Average Normal Cost Rate	14.92%	15.19%	

Amounts in millions

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

Normal cost rates shown below are before any offset for redirected member contributions under Senate Bill 1049.

	SLGRP	School Districts	Independent Employers	Tier 1 / Tier 2 Totals
Normal Cost				
Tier 1 General Service	\$114.9	\$71.5	\$18.3	\$204.8
Tier 2 General Service	135.0	106.8	16.8	258.6
Tier 1 Police & Fire	26.7	0.3	9.0	36.0
Tier 2 Police & Fire	60.0	0.4	18.4	78.7
Total Normal Cost	\$336.6	\$178.9	\$62.6	\$578.1
Tier 1/Tier 2 Valuation Payroll				
Tier 1 General Service	\$690.5	\$466.9	\$95.1	\$1,252.5
Tier 2 General Service	1,065.7	860.3	130.9	2,056.9
Tier 1 Police & Fire	122.7	1.3	40.4	164.3
Tier 2 Police & Fire	304.6	1.8	93.9	400.3
Total Valuation Payroll	\$2,183.5	\$1,330.2	\$360.3	\$3,873.9
Average Normal Cost Rates				
Tier 1 General Service	16.64%	15.32%	19.28%	16.35%
Tier 2 General Service	12.67%	12.41%	12.84%	12.57%
Tier 1 Police & Fire	21.76%	21.13%	22.34%	21.90%
Tier 2 Police & Fire	19.69%	19.57%	19.60%	19.66%
Average Rates				
Tier 1 Average	17.41%	15.34%	20.20%	16.99%
Tier 2 Average	14.23%	12.43%	15.66%	13.73%
General Service Average	14.23%	13.44%	15.55%	14.00%
Police & Fire Average	20.28%	20.22%	20.42%	20.31%
System Average	15.41%	13.45%	17.37%	14.92%
Judiciary Member Contributions			0.50%	0.05%
Adjusted System Average	15.41%	13.45%	16.87%	14.87%

Amounts in millions

UAL Rates Prior to Application of the Rate Collar

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

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

	SLGRP	School Districts	Independent Employers	Tier 1 / Tier 2 Totals ¹
December 31, 2019				
1. Total UAL	\$12,738.0	\$7,880.4	\$1,951.4	\$22,711.7
2. Next year's UAL payment	\$843.2	\$521.7	\$129.2	\$1,494.1
3. Combined valuation payroll	\$6,768.8	\$3,740.7	\$1,024.2	\$11,533.7
4. UAL rate (2 ÷ 3)	12.46%	13.95%	12.61%	12.95%
December 31, 2018				
1. Total UAL	\$13,765.6	\$9,051.6	\$2,063.2	\$25,026.7
2. Next year's UAL payment	\$911.3	\$599.2	\$136.6	\$1,647.1
3. Combined valuation payroll	\$6,346.1	\$3,543.5	\$962.4	\$10,852.0
4. UAL rate (2 ÷ 3)	14.36%	16.91%	14.19%	15.18%

Amounts in millions

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

Pre-SLGRP Pooled Rate

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

The following table develops the Pre-SLGRP pooled rate separately for the State and Community College Pool and the LGRP.

	December 31, 2019	December 31, 2018
State and Community College Pool		
1. Total pre-SLGRP pooled liability	\$408.7	\$448.8
2. Combined valuation payroll	\$3,913.0	\$3,633.6
3. Amortization Factor	6.875	7.606
4. Pre-SLGRP pooled rate (1. ÷ 2. ÷ 3.)	1.52%	1.62%
Local Government Rate Pool		
1. Total pre-SLGRP pooled liability	(\$174.9)	(\$191.8)
2. Combined valuation payroll	\$1,716.0	\$1,614.5
3. Amortization Factor	6.875	7.606
4. Pre-SLGRP pooled rate (1. ÷ 2. ÷ 3.)	(1.48%)	(1.56%)

Amounts in millions

Transition Liability or Surplus Rate

When an employer joins the SLGRP, a Transition Liability or Surplus is calculated to ensure that each employer enters the pool on a comparable basis. The Transition Liability or Surplus for each employer is maintained separately from the Tier 1/Tier 2 UAL for the SLGRP. The Transition Liability is amortized over a fixed period, and is expressed as a percentage of the employer’s combined (Tier 1/Tier 2 plus OPSRP) valuation payroll. The Transition Surplus for each employer is also maintained separately from the SLGRP, and is amortized over a fixed period via contribution rate offsets as a percentage of the employer’s 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 SLGRP.

The following table develops the average rate impact across all employers with outstanding Transition Liabilities or Surpluses as of the valuation date. The amortization factor below reflects the weighted average of the amortization periods for all such employers.

	December 31, 2019	December 31, 2018
1. Total transition liability/(surplus)	(\$553.5)	(\$602.7)
2. Combined valuation payroll	\$2,464.2	\$2,511.6
3. Average Amortization Factor ¹	6.964	7.670
4. Average transition liability/(surplus) rate (1. ÷ 2. ÷ 3.)	(3.23%)	(3.13%)

Amounts in millions

¹ *Weighted average*

Multnomah Fire District #10 UAL Rate

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

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

	December 31, 2019	December 31, 2018
1. Actuarial accrued liability		
a. Active members	\$0.0	\$0.0
b. Inactive members	0.0	0.0
c. Retired members and beneficiaries	50.9	52.7
d. Total actuarial accrued liability	\$50.9	\$52.7
2. Actuarial value of assets		
a. Employer reserve	(\$110.0)	(\$113.8)
b. Members reserve	0.0	0.0
c. Benefits in force reserve	18.9	20.2
d. Total actuarial value of assets	(\$91.1)	(\$93.6)
3. Multnomah FD #10 UAL (1.d. - 2.d.)	\$141.9	\$146.4
a. Portion allocated to City of Portland (21.8743% x 3.)	\$31.0	\$32.0
b. Portion allocated to all T1/T2 employers (78.1257% x 3.)	\$110.9	\$114.3
4. Combined valuation payroll		
a. City of Portland	\$477.1	\$434.2
b. All employers ¹	\$11,595.0	\$10,909.3
5. Amortization factor	6.875	7.606
6. Multnomah FD #10 UAL Rate		
a. City of Portland (3.a. ÷ 4.a. ÷ 5.)	0.95%	0.97%
b. All Tier 1 / Tier 2 employers (3.b. ÷ 4.b. ÷ 5.)	0.14%	0.14%
7. Total Multnomah FD #10 UAL Rate		
a. City of Portland (6.a. + 6.b.)	1.09%	1.11%
b. City of Gresham, City of Fairview, City of Wood Village, City of Troutdale (2 x 6.b.)	0.28%	0.28%
c. All other Tier 1 / Tier 2 employers (6.b.)	0.14%	0.14%

Amounts in millions

¹ For weighting purposes, includes double valuation payroll for each of the four employers listed in 7.b.

Calculated Employer Contribution Rate Summary (Pre-Rate Collar)

The following table summarizes the development of the total Tier 1/Tier 2 contribution rate for each rate pool as of the valuation date. The normal cost rates apply to Tier 1/Tier 2 payroll only, but all other rates are applied to combined (Tier 1/Tier 2 plus OPSRP) valuation payroll. These rates are adjusted on an individual employer basis for side accounts and pre-SLGRP liabilities, if applicable. Weighted average adjustments for side accounts and pre-SLGRP liabilities are shown in the table. For individual employers, these adjustments cannot reduce the pension contribution rate below 0.00%. Note that independent employers, other than the State Judiciary, are subject to a minimum employer contribution rate of 6.00% that is not taken into account in the average rates below.

July 1, 2021 Rates Calculated as of December 31, 2019				
	SLGRP	School Districts	Independent Employers	Tier 1 / Tier 2 Totals
Tier 1/Tier 2 pension contribution rates				
Normal cost rate	15.41%	13.45%	16.87%	14.87%
Judiciary member contributions			0.50%	0.05%
Uncollared UAL rate	12.46%	13.95%	12.61%	12.95%
Multnomah FD #10 rate	0.21%	0.14%	0.15%	0.18%
Uncollared total Tier 1/Tier 2 pension rate	28.08%	27.54%	30.13%	28.05%
Average adjustments				
Pre-SLGRP liability/(surplus) rate	(0.69%)	N/A	N/A	(0.40%)
Side account rate	(4.99%)	(9.93%)	(1.11%)	(6.24%)
Total average adjustment	(5.68%)	(9.93%)	(1.11%)	(6.64%)
Member redirect offset¹	(2.45%)	(2.45%)	(2.45%)	(2.45%)
Uncollared net employer Tier 1/Tier 2 pension rate	19.95%	15.16%	26.57%	18.96%

¹ Redirected member contributions under Senate Bill 1049 (2.50% of payroll for Tier 1/Tier 2) will offset employer contribution rates beginning July 1, 2021. 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.

Calculation of Rate Collar

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

The table below develops the impact of the collar for each of the Tier 1/Tier 2 rate pools. Although the calculation is performed individually for independent employers, the table shows the calculation as if independent employers were a single rate pool. Note that independent employers, other than the State Judiciary, are subject to a minimum employer contribution rate of 6.00% that is not taken into account in the calculation below.

July 1, 2021 Tier 1/Tier 2 Rates Calculated as of December 31, 2019				
Calculation of Collar Adjustments	SLGRP	School Districts	Independent Employers	Tier 1 / Tier 2 Totals ¹
1. Current total Tier 1/Tier 2 pension rate	26.26%	30.52%	23.87%	27.43%
2. Size of rate collar				
a. Preliminary size of rate collar <i>(greater of 3% or 20% x 1.)</i>	5.25%	6.10%	4.77%	5.49%
b. Funded percentage	71%	74%	72%	72%
c. Size of rate collar <i>(If b. < 60% or b. > 140%, 2 x a. If b. is 70%-130%, a. Otherwise, graded rate between a. and 2 x a.)</i>	5.25%	6.10%	4.77%	
3. July 1, 2021 Minimum total contribution rate <i>(1. - 2.c.)</i>	21.01%	24.42%	19.10%	
4. July 1, 2021 Maximum total contribution rate <i>(1. + 2.c.)</i>	31.51%	36.62%	28.64%	
5. July 1, 2021 total contribution rate before collar	28.08%	27.54%	29.63%	
6. July 1, 2021 total contribution rate after collar <i>(5., but not less than 3. or more than 4.)</i>	28.08%	27.54%	28.64%	
7. Impact of collar (6. - 5.)²	0.00%	0.00%	(0.99%)	(0.09%)

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

² The impact of collar shown for the system-wide column is the weighted average of the impact shown for each rate pool.

Calculated Employer Contribution Rate Summary (Post-Rate Collar)

Any needed adjustment to reflect the effects of the rate collar is made to the UAL rate. The table below summarizes the average rates effective July 1, 2021 by pool and component. Although the rate collar is applied individually for independent employers, the table shows the average rates as if independent employers were a single rate pool. Note that independent employers, other than the State Judiciary, are subject to a minimum employer contribution rate of 6.00% that is not taken into account in the average rates below.

July 1, 2021 Rates Calculated as of December 31, 2019				
	SLGRP	School Districts	Independent Employers	Tier 1 / Tier 2 Totals
Tier 1/Tier 2 pension contribution rates				
Normal cost rate	15.41%	13.45%	16.87%	14.87%
Judiciary member contributions			0.50%	0.05%
Collared UAL rate	12.46%	13.95%	11.62%	12.86%
Multnomah FD #10 rate	0.21%	0.14%	0.15%	0.18%
Collared total Tier 1/Tier 2 pension rate	28.08%	27.54%	29.14%	27.96%
Average adjustments				
Pre-SLGRP liability/(surplus) rate	(0.69%)	N/A	N/A	(0.40%)
Side account rate	(4.99%)	(9.93%)	(1.11%)	(6.24%)
Total average adjustment	(5.68%)	(9.93%)	(1.11%)	(6.64%)
Member redirect offset¹	(2.45%)	(2.45%)	(2.45%)	(2.45%)
Collared net employer Tier 1/Tier 2 pension rate	19.95%	15.16%	25.58%	18.87%

¹ Redirected member contributions under Senate Bill 1049 (2.50% of payroll for Tier 1/Tier 2) will offset employer contribution rates beginning July 1, 2021. 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.

OPSRP Assets

Information on OPSRP assets is shown in the section of this report covering the system-wide assets. As of December 31, 2019, the actuarial value of assets for OPSRP is \$6,190.4 million.

OPSRP Liabilities

Normal Cost

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

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

	December 31, 2019			December 31, 2018		
	General Service	Police & Fire	Total	General Service	Police & Fire	Total
Pre-Retirement Disability						
Duty	\$0.7	\$1.4	\$2.1	\$0.6	\$1.3	\$1.9
Non-Duty	10.1	1.2	11.3	8.9	1.0	9.9
Total Pre-Retirement Disability	\$10.8	\$2.6	\$13.4	\$9.5	\$2.3	\$11.8
Other Benefits						
Service Retirement	\$498.5	\$107.4	\$605.9	\$444.9	\$94.2	\$539.1
Withdrawal	53.6	5.5	59.1	47.5	4.9	52.4
Death	4.8	0.7	5.4	4.3	0.6	4.9
Duty Disability Retirement	0.4	1.1	1.5	0.3	1.0	1.4
Non-Duty Disability Retirement	7.0	1.2	8.2	6.2	1.0	7.2
Total Other Benefits	\$564.3	\$115.9	\$680.2	\$503.3	\$101.7	\$605.0
Assumed Administrative Expenses	7.0	1.0	8.0	7.1	0.9	8.0
Total Normal Cost	\$582.1	\$119.5	\$701.6	\$519.9	\$104.9	\$624.8

Amounts in millions

Reconciliation of Change in Normal Cost

The increase in the normal cost since the prior valuation is primarily attributable to the effect of new entrants to the OPSRP program. The table below reconciles the normal cost from the prior valuation to the current valuation.

	OPSRP
Normal Cost, December 31, 2018	\$624.8
Expected increase (decrease)	(12.9)
Assumption and method changes	0.0
Plan changes	0.0
New entrants	71.0
Deviations from expected experience	
Pay increases	\$16.2
All other sources	2.5
Total demographic (gains) and losses	\$18.7
Normal Cost, December 31, 2019	\$701.6

Amounts in millions

Actuarial Accrued Liability

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

	December 31, 2019			December 31, 2018		
	General Service	Police & Fire	Total	General Service	Police & Fire	Total
Active Members						
Pre-retirement Duty Disability	\$1.6	\$3.3	\$4.9	\$1.3	\$2.7	\$4.1
Pre-retirement Non-Duty Disability	89.2	9.2	98.4	77.6	8.0	85.6
Service Retirement	5,409.5	1,069.0	6,478.4	4,546.3	881.5	5,427.8
Withdrawal	262.1	22.2	284.3	228.9	19.8	248.7
Death	47.0	5.9	52.9	39.8	5.0	44.8
Duty Disability Retirement	2.6	6.8	9.5	2.2	5.8	8.0
Non-Duty Disability Retirement	69.3	10.1	79.4	59.1	8.7	67.8
Total Active Members	\$5,881.4	\$1,126.5	\$7,007.9	\$4,955.3	\$931.4	\$5,886.7
Inactive Members			520.1			432.2
Retired Members and Beneficiaries			554.3			419.0
Total Actuarial Accrued Liability			\$8,082.2			\$6,738.0

Amounts in millions

Reconciliation of Change in Actuarial Accrued Liability

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

	OPSRP
Actuarial Accrued Liability December 31, 2018	\$6,738.0
Expected change	1,080.0
Assumption and method changes	0.0
Plan changes	0.0
Deviations from expected experience	
Retirements from active status	\$6.0
Disability retirements	(5.7)
Active mortality and withdrawal	23.8
Pay increases	137.9
Inactive mortality	(4.2)
Data corrections	(0.6)
Other	1.1
Total demographic (gains) and losses	\$158.3
New entrants	106.0
Actuarial Accrued Liability December 31, 2019	\$8,082.2

Amounts in millions

OPSRP Unfunded Accrued Liability (UAL)

Calculation of UAL

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

	December 31, 2019	December 31, 2018
1. Actuarial accrued liability	\$8,082.2	\$6,738.0
2. Actuarial value of assets	\$6,190.4	\$4,783.0
3. Unfunded accrued liability (2. - 1.)	\$1,891.8	\$1,955.0
4. Funded percentage (2. ÷ 1.)	76.6%	71.0%
5. Combined valuation payroll	\$11,533.7	\$10,852.0
6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.)	16.4%	18.0%

Amounts in millions

Reconciliation of UAL Bases

Beginning with the December 31, 2007, actuarial valuation, each odd-year valuation establishes a 16-year closed-period amortization base for outstanding OPSRP UAL amounts. For odd-year valuations subsequent to December 31, 2007, this amortization base is calculated based on the total OPSRP UAL as of that valuation date less the remaining unamortized balance of any OPSRP UAL bases established at previous odd-year valuation dates. In other words, OPSRP experience from December 31, 2017 to December 31, 2019 is amortized based on a 16-year amortization schedule beginning December 31, 2019.

Reconciliation of UAL Bases					
Amortization Base	UAL December 31, 2018	Payment	Interest	UAL December 31, 2019	Next Year's Payment
December 31, 2007	(\$40.7)	(\$9.0)	(\$2.6)	(\$34.3)	(\$9.3)
December 31, 2009	113.5	18.5	7.5	102.4	19.2
December 31, 2011	46.0	6.0	3.1	43.0	6.3
December 31, 2013	419.3	46.6	28.4	401.0	48.2
December 31, 2015	719.3	69.9	49.1	698.5	72.4
December 31, 2017	218.6	19.0	15.0	214.6	19.7
December 31, 2019	N/A	N/A	N/A	466.6	38.7
Total				\$1,891.8	\$195.1

Amounts in millions

Actuarial Gain or Loss since Prior Valuation

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

The table below develops the actuarial gain or loss for OPSRP for the year ending December 31, 2019.

	OPSRP
1. Expected actuarial accrued liability	
a. Actuarial accrued liability at January 1, 2019	\$6,738.0
b. Normal cost (excluding expenses) at January 1, 2019	616.8
c. Benefit payments (excluding expenses) for year ending December 31, 2019	(42.6)
d. Interest	505.8
e. Expected actuarial accrued liability before changes (a. + b. + c. + d.)	\$7,818.0
f. Change in actuarial accrued liability at December 31, 2019, due to assumption and method changes	0.0
g. Change in actuarial accrued liability at December 31, 2019, due to plan changes	0.0
h. Expected actuarial accrued liability at December 31, 2019 (e. + f. + g.)	\$7,818.0
2. Actuarial accrued liability at December 31, 2019	\$8,082.2
3. Liability gain/(loss) (1.h. - 2)	(\$264.3)
4. Expected actuarial value of assets	
a. Actuarial value of assets at January 1, 2019	\$4,783.0
b. Actual contributions for 2019	785.7
c. Benefit payments and expenses for year ending December 31, 2019	(51.0)
d. Assumed investment return	370.8
e. Expected actuarial value of assets at December 31, 2019 (a. + b. + c. + d.)	\$5,888.6
5. Actuarial value of assets as of December 31, 2019	\$6,190.4
6. Asset gain/(loss) (5. - 4.e.)	\$301.8
7. Net actuarial gain/(loss) (3. + 6.)	\$37.5

Amounts in millions

Reconciliation of the UAL

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

The 2019 liability loss shown is primarily due to pay increases differing from assumption and the accrued liability associated with new entrants to the OPSRP program. For a full assessment of the new entrant effect on UAL, the accrued liability associated with new entrants would need to be combined with contributions associated with new entrants.

	OPSRP
UAL, December 31, 2018	\$1,955.0
Normal cost (including actual administrative expenses)	625.2
Contributions	(785.7)
Liability (gain) or loss	264.3
Asset (gain) or loss	(301.8)
Assumption and method changes	0.0
Plan changes	0.0
Interest at 7.20%	135.0
UAL, December 31, 2019	\$1,891.8

Amounts in millions

OPSRP Contribution Rate Development

Normal Cost Rates

The table below shows the development of the OPSRP normal cost rates. Total normal cost rates shown below are before any offset for redirected member contributions under Senate Bill 1049.

	December 31, 2019			December 31, 2018		
	General Service	Police & Fire	Total	General Service	Police & Fire	Total
Normal Cost						
Pre-retirement Disability Benefits	\$10.8	\$2.6	\$13.4	\$9.5	\$2.3	\$11.8
All Other Benefits	564.3	115.9	680.2	503.3	101.7	605.0
Assumed Administrative Expenses	7.0	1.0	8.0	7.1	0.9	8.0
Total Normal Cost	\$582.1	\$119.5	\$701.6	\$519.9	\$104.9	\$624.8
OPSRP Valuation Payroll	\$6,740.9	\$919.0	\$7,659.8	\$5,973.4	\$802.5	\$6,775.9
Normal Cost Rate						
Pre-retirement Disability Benefits	0.16%	0.29%	0.17%	0.16%	0.29%	0.17%
All Other Benefits	8.37%	12.61%	8.88%	8.43%	12.67%	8.93%
Assumed Administrative Expenses	0.10%	0.10%	0.10%	0.12%	0.12%	0.12%
Total Normal Cost Rate	8.64%	13.00%	9.16%	8.70%	13.07%	9.22%

Amounts in millions

UAL Rates

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

	December 31, 2019	December 31, 2018
1. Total UAL	\$1,891.8	\$1,955.0
2. Next year's UAL payment	\$195.1	\$190.8
3. Combined valuation payroll	\$11,533.7	\$10,852.0
4. UAL rate (2 ÷ 3)	1.69%	1.76%

Amounts in millions

Calculated Employer Contribution Rates (Pre-Rate Collar)

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

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

July 1, 2021 Rates Calculated as of December 31, 2019			
	General Service	Police & Fire	Average Rate
OPSRP pension contribution rates			
Normal cost rate	8.64%	13.00%	9.16%
Uncollared UAL rate	1.69%	1.69%	1.69%
Uncollared total OPSRP pension rate	10.33%	14.69%	10.85%
Member redirect offset¹	(0.70%)	(0.70%)	(0.70%)
Uncollared net employer OPSRP pension rate	9.63%	13.99%	10.15%

¹ Redirected member contributions under Senate Bill 1049 (0.75% of payroll for OPSRP) will offset employer contribution rates beginning July 1, 2021. 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.

Calculation of Rate Collar

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

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

July 1, 2021 Rates Calculated as of December 31, 2019			
	General Service	Police & Fire	Average Rate
1. Current total OPSRP pension rate	9.85%	14.48%	10.37%
2. Size of rate collar			
a. Preliminary size of rate collar <i>(greater of 3% or 20% x 1.)</i>			3.00%
b. Funded percentage			77%
c. Size of rate collar <i>(If b. < 60% or b. > 140%, 2 x a. If b. is 70%-130%, a. Otherwise, graded rate between a. and 2 x a.)</i>			3.00%
3. July 1, 2021 Minimum total contribution rate <i>(1. - 2.c.)</i>			7.37%
4. July 1, 2021 Maximum total contribution rate <i>(1. + 2.c.)</i>			13.37%
5. July 1, 2021 total contribution rate before collar	10.33%	14.69%	10.85%
6. July 1, 2021 total contribution rate after collar <i>(5., but not less than 3. or more than 4.)</i>	10.33%	14.69%	10.85%
7. Impact of collar (6. - 5.)	0.00%	0.00%	0.00%

Calculated Employer Contribution Rates (Post-Rate Collar)

The table below summarizes the OPSRP contribution rate for general service and police & fire members as of the valuation date, after adjustments for the rate collar.

July 1, 2021 Rates Calculated as of December 31, 2019			
	General Service	Police & Fire	Average Rate
OPSRP pension contribution rates			
Normal cost rate	8.64%	13.00%	9.16%
Collared UAL rate	1.69%	1.69%	1.69%
Collared total OPSRP pension rate	10.33%	14.69%	10.85%
Member redirect offset¹	(0.70%)	(0.70%)	(0.70%)
Collared net employer OPSRP pension rate	9.63%	13.99%	10.15%

¹ Redirected member contributions under Senate Bill 1049 (0.75% of payroll for OPSRP) will offset employer contribution rates beginning July 1, 2021. 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.

Retiree Healthcare Valuation

Retiree Healthcare Assets

Assets

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

	RHIA	RHIPA	Retiree Healthcare Totals
Additions			
1. Employer contributions	\$30.1	\$12.8	\$42.9
2. Net investment income	76.7	5.3	82.0
3. Other	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
4. Total additions	\$106.8	\$18.1	\$124.9
Deductions			
4. Healthcare Premium Subsidies	(\$32.1)	(\$4.4)	(\$36.4)
5. Administrative expenses	<u>(1.3)</u>	<u>(0.3)</u>	<u>(1.6)</u>
6. Total deductions	(\$33.4)	(\$4.7)	(\$38.0)
7. Net change	\$73.4	\$13.4	\$86.8
8. Net assets held in trust for benefits			
a. Beginning of year	\$570.7	\$38.5	\$609.2
b. End of year	\$644.1	\$51.9	\$696.0

Amounts in millions

Retiree Healthcare Liabilities

Normal Cost

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

	RHIA			RHIPA		
	December 31, 2019	December 31, 2018	Percent Change	December 31, 2019	December 31, 2018	Percent Change
Normal Cost						
Service Retirement	\$1.4	\$1.5		\$1.2	\$1.2	
Withdrawal	0.5	0.5		0.0	0.0	
Disability	0.1	0.1		0.1	0.1	
Death	<u>0.0</u>	<u>0.0</u>		<u>0.0</u>	<u>0.0</u>	
Total Normal Cost	\$1.9	\$2.2	(10.5%)	\$1.2	\$1.3	(6.7%)

Amounts in millions

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

	RHIA	RHIPA
Normal Cost December 31, 2018	\$2.2	\$1.3
Expected increase (decrease)	(0.1)	(0.0)
Assumption and method changes	0.0	0.0
Plan changes	0.0	0.0
Deviations from expected experience		
Demographic (gains) or losses	(0.1)	(0.0)
Normal Cost December 31, 2019	\$1.9	\$1.2

Amounts in millions

Actuarial Accrued Liability

A summary of the actuarial accrued liability by status is shown below for the current and prior year.

	RHIA			RHIPA		
	December 31, 2019	December 31, 2018	Percent Change	December 31, 2019	December 31, 2018	Percent Change
Actives	\$58.3	\$62.2	(6.3%)	\$47.2	\$48.8	(3.2%)
Inactive Members	18.7	19.6	(4.5%)	0.0	0.0	0.0%
Retired Members and Beneficiaries	326.9	329.8	(0.9%)	12.1	14.0	(13.5%)
Total Actuarial Accrued Liability	\$403.9	\$411.7	(1.9%)	\$59.3	\$62.7	(5.5%)

Amounts in millions

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

	RHIA	RHIPA	Total
Actuarial Accrued Liability December 31, 2018	\$411.7	\$62.7	\$474.4
Expected change	(1.4)	1.3	(0.0)
Assumption and method changes	0.0	0.0	0.0
Plan changes	0.0	0.0	0.0
Deviations from expected experience			
Demographic (gains) or losses	(6.4)	(4.8)	(11.2)
Actuarial Accrued Liability December 31, 2019	\$403.9	\$59.3	\$463.2

Amounts in millions

Retiree Healthcare Unfunded Accrued Liability (UAL)

Calculation of UAL

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

	RHIA			RHIPA		
	December 31, 2019	December 31, 2018	Percent Change	December 31, 2019	December 31, 2018	Percent Change
1. Actuarial accrued liability	\$403.9	\$411.7	(1.9%)	\$59.3	\$62.7	(5.5%)
2. Actuarial value of assets	\$644.1	\$570.7	12.9%	\$51.9	\$38.5	34.9%
3. Unfunded accrued liability	(\$240.3)	(\$159.1)	51.0%	\$7.4	\$24.3	(69.4%)
4. Funded percentage (2. ÷ 1.)	159.5%	138.6%	15.0%	87.5%	61.3%	42.7%
5. Combined valuation payroll	\$11,533.7	\$10,852.0	6.3%	\$3,479.8	\$3,211.6	8.3%
6. Unfunded accrued liability as % of combined valuation payroll (3. ÷ 5.)	(2.1%)	(1.5%)		0.2%	0.8%	

Amounts in millions

Reconciliation of UAL Bases

Beginning with the December 31, 2007 actuarial valuation, each rate-setting valuation establishes a 10-year amortization base for outstanding RHIA and RHIPA UAL amounts. For odd-year valuations subsequent to December 31, 2007, this amortization base is calculated based on the total UAL as of that valuation date less the remaining unamortized balance of any UAL bases established at previous odd-year valuation dates. In other words, RHIA and RHIPA experience from December 31, 2017 to December 31, 2019 is amortized based on a 10-year amortization schedule beginning December 31, 2019.

RHIA					
Amortization Base	UAL December 31, 2018	Payment	Interest	UAL December 31, 2019	Next Year's Payment
December 31, 2009	\$10.2	\$10.5	\$0.3	\$0.0	\$0.0
December 31, 2011	(13.6)	(4.8)	(0.8)	(9.5)	(5.0)
December 31, 2013	(29.6)	(6.6)	(1.9)	(25.0)	(6.8)
December 31, 2015	(5.2)	(0.8)	(0.3)	(4.7)	(0.9)
December 31, 2017	(74.3)	(9.8)	(5.0)	(69.5)	(10.1)
December 31, 2019	N/A	N/A	N/A	(131.6)	(15.8)
Total				(\$240.3)	(\$38.6)

Amounts in millions

RHIPA					
Amortization Base	UAL December 31, 2018	Payment	Interest	UAL December 31, 2019	Next Year's Payment
December 31, 2009	\$0.3	\$0.4	\$0.0	\$0.0	\$0.0
December 31, 2011	6.3	2.3	0.4	4.4	2.3
December 31, 2013	20.3	4.5	1.3	17.1	4.7
December 31, 2015	9.1	1.5	0.6	8.2	1.5
December 31, 2017	(2.1)	(0.3)	(0.1)	(1.9)	(0.3)
December 31, 2019	N/A	N/A	N/A	(20.4)	(2.5)
Total				\$7.4	\$5.8

Amounts in millions

Actuarial Gain or Loss since Prior Valuation

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

The table below shows the development of the actuarial gain (or loss) for RHIA and RHIPA for the plan year ending December 31, 2019.

	RHIA	RHIPA	Retiree Healthcare Totals
1. Expected actuarial accrued liability			
a. Actuarial accrued liability at January 1, 2019	\$411.7	\$62.7	\$474.4
b. Normal cost at January 1, 2019	2.2	1.3	3.5
c. Benefit payments for year ending December 31, 2019	(32.1)	(4.4)	(36.4)
d. Interest	28.6	4.4	33.0
e. Expected actuarial accrued liability before changes (a. + b. + c. + d.)	\$410.3	\$64.1	\$474.4
f. Change in actuarial accrued liability at December 31, 2019, due to assumption and method changes	0.0	0.0	0.0
g. Change in actuarial accrued liability at December 31, 2019, due to plan changes	0.0	0.0	0.0
h. Expected actuarial accrued liability at December 31, 2019 (e. + f. + g.)	\$410.3	\$64.1	\$474.4
2. Actuarial accrued liability at December 31, 2019	\$403.9	\$59.3	\$463.2
3. Liability gain/(loss) (1.h. - 2.)	\$6.4	\$4.8	\$11.2
4. Expected actuarial value of assets			
a. Actuarial value of assets at January 1, 2019	\$570.7	\$38.5	\$609.2
b. Actual contributions for 2019	30.1	12.8	42.9
c. Benefit payments and expenses for year ending December 31, 2019	(33.4)	(4.7)	(38.0)
d. Assumed investment return	41.0	3.1	44.0
e. Expected actuarial value of assets before changes (a. + b. + c. + d.)	\$608.4	\$49.6	\$658.0
f. Change in actuarial value of assets at December 31, 2019, due to assumption changes	0.0	0.0	0.0
g. Change in actuarial value of assets at December 31, 2019, due to plan changes	0.0	0.0	0.0
h. Expected actuarial value of assets at December 31, 2019 (e. + f. + g.)	\$608.4	\$49.6	\$658.0
5. Actuarial value of assets at December 31, 2019	\$644.1	\$51.9	\$696.0
6. Actuarial asset gain/(loss) (5. - 4.h.)	\$35.7	\$2.3	\$38.0
7. Net actuarial gain/(loss) (3. + 6.)	\$42.1	\$7.0	\$49.2

Amounts in millions

Reconciliation of UAL

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

The significant decrease in both the RHIA and RHIPA UAL is primarily due to employer contributions, and lower participation than assumed.

	RHIA	RHIPA
UAL, December 31, 2018	(\$159.1)	\$24.3
Normal Cost (including actual administrative expenses)	3.5	1.6
Contributions	(30.1)	(12.8)
Liability (gain) or loss	(6.4)	(4.8)
Asset (gain) or loss	(35.7)	(2.3)
Assumption and method changes	0.0	0.0
Interest	(12.4)	1.3
UAL, December 31, 2019	(\$240.3)	\$7.4

Amounts in millions

Retiree Healthcare Contribution Rate Development

Normal Cost Rate

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

	RHIA		RHIPA	
	December 31, 2019	December 31, 2018	December 31, 2019	December 31, 2018
Normal Cost	\$1.9	\$2.2	\$1.2	\$1.3
Tier 1/Tier 2 Valuation Payroll	\$3,873.9	\$4,076.1	\$1,120.6	\$1,159.5
Normal Cost Rate	0.05%	0.05%	0.11%	0.11%

Amounts in millions

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

	December 31, 2019			
	SLGRP	School Districts	Independent Employers	Retiree Healthcare Total
1. Tier 1/ Tier 2 Valuation Payroll				
a. All Employers' Payroll	\$2,183.5	\$1,330.2	\$360.3	\$3,873.9
b. RHIPA Employers' Payroll	\$1,094.8	\$0.0	\$25.9	\$1,120.6
2. Normal Cost Rate				
a. RHIA	0.05%	0.05%	0.05%	0.05%
b. RHIPA	0.11%	0.00%	0.11%	0.11%
3. Weighted Average Normal Cost Rate [(1.a. x 2.a + 1.b. x 2.b.) / 1.a]	0.11%	0.05%	0.06%	0.08%

Amounts in millions

UAL Rate

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

For RHIA, the UAL rate calculated under this method was less than 0.00% in this valuation. As a result, the PERS Board decided to apply a minimum UAL rate of 0.00% for the current valuation.

	RHIA		RHIPA	
	December 31, 2019	December 31, 2018	December 31, 2019	December 31, 2018
1. Total UAL	(\$240.3)	(\$159.1)	\$7.4	\$24.3
2. Next year's UAL payment	(\$38.6)	(\$17.1)	\$5.8	\$7.2
3. Combined valuation payroll	\$11,533.7	\$10,852.0	\$3,479.8	\$3,211.6
4. UAL rate				
a. Preliminary UAL rate (2 ÷ 3)	(0.33%)	(0.16%)	0.17%	0.22%
b. Final UAL rate (greater of a. or 0.00%)	0.00%	0.00%	0.17%	0.22%

Amounts in millions

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

	December 31, 2019			
	SLGRP	School Districts	Independent Employers	Retiree Healthcare Total
1. Combined Valuation Payroll				
a. All Employers' Payroll	\$6,768.8	\$3,740.7	\$1,024.2	\$11,533.7
b. RHIPA Employers' Payroll	\$3,454.0	\$0.0	\$25.9	\$3,479.8
2. UAL Rate				
a. RHIA	0.00%	0.00%	0.00%	0.00%
b. RHIPA	0.17%	0.00%	0.17%	0.17%
3. Weighted Average UAL Rate [(1.a. x 2.a + 1.b. x 2.b.) / 1.a]	0.09%	0.00%	0.00%	0.05%

Amounts in millions

Calculated Employer Contribution Rate Summary

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

July 1, 2021 Rates Calculated as of December 31, 2019			
	State Agencies and Judiciary	All Other Employers	Retiree Healthcare Total
Normal Cost Rates			
RHIA	0.05%	0.05%	0.05%
RHIPA	0.11%	0.00%	0.03%
Total normal cost rate	0.16%	0.05%	0.08%
UAL Rates			
RHIA	0.00%	0.00%	0.00%
RHIPA	0.17%	0.00%	0.05%
Total UAL rate	0.17%	0.00%	0.05%
Total retiree healthcare rate	0.33%	0.05%	0.13%

Accounting / CAFR Exhibits

Accounting/CAFR Exhibits

The following information as of December 31, 2019 has been prepared and provided to Oregon PERS for inclusion in the Actuarial Section of the 2020 Comprehensive Annual Financial Report (CAFR):

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

These exhibits do not reflect GASB Statements No. 74 and 75, which were issued by GASB in June 2015 to replace Statements No. 43 and 45, and govern financial reporting for postemployment benefits other than pensions. GASB 74 governs plan reporting effective for fiscal years beginning after June 15, 2016, while GASB 75 governs employer reporting for fiscal years beginning after June 15, 2017. Milliman provided results for Oregon PERS under GASB 74 and 75 determined as of a June 30, 2019 measurement date in letters dated December 6, 2019 and March 4, 2020, respectively. The results for a measurement date of June 30, 2020 will be provided separately.

These exhibits do not reflect GASB Statements No. 67 and 68, issued by GASB in June 2012 to replace Statements No. 25 and 27. GASB 67 governs plan financial reporting effective for fiscal years beginning after June 15, 2013, while GASB 68 governs employer financial reporting for fiscal years beginning after June 15, 2014. Milliman provided results for Oregon PERS under GASB 67 and 68 determined as of a June 30, 2019 measurement date in letters dated December 6, 2019 and March 4, 2020, respectively. The results for a measurement date of June 30, 2020 will be provided separately.

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

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

The exhibits are provided on the following pages.

Actuarial Schedules

Schedule of Active Member Valuation Data

Valuation Date	Count	Annual Payroll (Thousands)	Average Annual Pay	% Increase in Average Pay	Number of Participating Employers ¹	
12/31/1993	137,513	\$4,466,797	\$32,483		N/A	
12/31/1995	141,471	\$4,848,058	\$34,269	5.5%	N/A	
12/31/1997	143,194	\$5,161,562	\$36,045	5.2%	N/A	
12/31/1999	151,262	\$5,676,606	\$37,528	4.1%	N/A	
12/31/2000	156,869	\$6,195,862	\$39,497	5.2%	N/A	
12/31/2001	160,477	\$6,520,225	\$40,630	2.9%	N/A	Old Basis
12/31/2001	160,477	\$6,253,965	\$38,971	—	N/A	New Basis ²
12/31/2002	159,287	\$6,383,475	\$40,075	2.8%	N/A	
12/31/2003	153,723	\$6,248,550	\$40,648	1.4%	N/A	
12/31/2004	142,635	\$6,306,447	\$44,214	8.8%	806	
12/31/2005 ³	156,501	\$6,791,891	\$43,398	(1.8%)	810	
12/31/2006	163,261	\$7,326,798	\$44,878	3.4%	758	
12/31/2007	167,023	\$7,721,819	\$46,232	3.0%	760	
12/31/2008	170,569	\$8,130,136	\$47,665	3.1%	766	
12/31/2009	178,606	\$8,512,192	\$47,659	(0.0%)	776	
12/31/2010	193,569	\$8,750,064	\$45,204	(5.2%)	787	
12/31/2011	170,972	\$8,550,511	\$50,011	10.6%	791	
12/31/2012	167,103	\$8,590,879	\$51,411	2.8%	798	
12/31/2013	162,185	\$8,671,835	\$53,469	4.0%	799	
12/31/2014	164,859	\$9,115,767	\$55,294	3.4%	802	
12/31/2015	168,177	\$9,544,132	\$56,751	2.6%	804	
12/31/2016	172,483	\$9,872,557	\$57,238	0.9%	805	
12/31/2017	173,002	\$10,098,889	\$58,374	2.0%	802	
12/31/2018	176,763	\$10,851,980	\$61,393	5.2%	798	
12/31/2019	180,757	\$11,533,740	\$63,808	3.9%	802	

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

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

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

Actuarial Schedules

Schedule of Retirees and Beneficiaries Added to and Removed from Rolls

Annual Allowances are shown in thousands.

Valuation Date	Added to Rolls		Removed from Rolls		Rolls - End of Year		% Increase in Annual Allowances ²	Average Annual Allowances
	Count	Annual Allowances ¹	Count	Annual Allowances	Count	Annual Allowances		
12/31/1993					60,841	\$564,341	27.6%	\$9,276
12/31/1995					64,796	\$700,171	24.1%	\$10,806
12/31/1997					69,624	\$919,038	31.3%	\$13,200
12/31/1999					82,819	\$1,299,380	41.4%	\$15,689
12/31/2000					82,458	\$1,385,556	6.6%	\$16,803
12/31/2001					85,216	\$1,514,491	9.3%	\$17,772
12/31/2002					89,482	\$1,722,865	13.8%	\$19,254
12/31/2003					97,777	\$2,040,533	8.4%	\$20,869
12/31/2004 ³	6,754	\$149,474	2,863	\$35,151	101,668	\$2,154,856	5.6%	\$21,195
12/31/2005 ³	4,472	\$149,127	3,217	\$36,784	102,923	\$2,267,198	5.2%	\$22,028
12/31/2006 ³	5,060	\$151,240	3,263	\$39,735	104,720	\$2,378,704	4.9%	\$22,715
12/31/2007 ³	5,385	\$183,232	3,304	\$40,590	106,801	\$2,521,345	6.0%	\$23,608
12/31/2008 ³	5,963	\$171,484	3,626	\$47,062	109,138	\$2,645,767	4.9%	\$24,242
12/31/2009 ³	6,377	\$226,713	3,374	\$46,228	112,141	\$2,826,252	6.8%	\$25,203
12/31/2010 ³	6,359	\$217,424	3,512	\$51,627	114,988	\$2,992,048	5.9%	\$26,021
12/31/2011 ³	8,715	\$282,098	3,679	\$55,633	120,024	\$3,218,514	7.6%	\$26,816
12/31/2012 ³	7,023	\$235,917	4,875	\$59,353	122,172	\$3,395,079	5.5%	\$27,789
12/31/2013	9,724	\$307,551	3,644	\$66,607	128,252	\$3,636,023	7.1%	\$28,351
12/31/2014 ⁴	6,910	\$235,250	3,524	\$66,621	131,638	\$3,804,651	4.6%	\$28,902
12/31/2015 ⁴	8,566	\$304,818	3,781	\$73,305	136,423	\$4,036,165	6.1%	\$29,586
12/31/2016 ⁴	6,413	\$242,372	3,931	\$80,903	138,905	\$4,197,633	4.0%	\$30,219
12/31/2017 ⁴	10,075	\$385,197	3,878	\$83,921	145,102	\$4,498,910	7.2%	\$31,005
12/31/2018	7,856	\$297,542	3,933	\$90,107	149,025	\$4,706,345	4.6%	\$31,581
12/31/2019	8,200	\$322,057	4,124	\$95,486	153,101	\$4,932,915	4.8%	\$32,220

¹ Additions to annual allowances reflect the combined effects of newretirements and COLA increases since the previous valuation date.

² Since last valuation date.

³ Annual allowances reflect estimated adjustments to retiree benefits due to the implementation of the Strunk v. PERB, et al. and City of Eugene v. State of Oregon, PERB, et al. decisions.

⁴ Annual allowances reflect estimated adjustments to retiree benefits for the Moro v. State of Oregon decision for records that were not already adjusted in the data provided.

Actuarial Schedules

Schedule of Funding Progress by Rate Pool

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

Actuarial Valuation Date	Actuarial Value of Assets ^{1,2} (a)	Actuarial Accrued Liability (AAL) ² (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll ³ (c)	UAAL as a % of Covered Payroll ((b-a)/c)
Tier 1/Tier 2 State & Local Government Rate Pool						
12/31/2014 ⁵	\$31,162.6	\$37,169.9	\$6,007.3	83.8%	\$2,827.9	212.4%
12/31/2015 ⁴	\$30,185.3	\$38,396.8	\$8,211.5	78.6%	\$2,691.8	305.1%
12/31/2016	\$30,417.6	\$40,351.3	\$9,933.7	75.4%	\$2,546.7	390.1%
12/31/2017 ⁴	\$33,366.0	\$42,150.7	\$8,784.7	79.2%	\$2,410.6	364.4%
12/31/2018	\$31,798.9	\$43,149.3	\$11,350.4	73.7%	\$2,299.5	493.6%
12/31/2019 ⁴	\$34,060.0	\$44,122.1	\$10,062.1	77.2%	\$2,183.5	460.8%
Tier 1/Tier 2 School District Rate Pool						
12/31/2014 ⁵	\$23,361.2	\$27,059.9	\$3,698.7	86.3%	\$1,626.0	227.5%
12/31/2015	\$22,728.9	\$27,670.7	\$4,941.8	82.1%	\$1,578.8	313.0%
12/31/2016	\$22,870.2	\$29,152.2	\$6,282.0	78.5%	\$1,532.7	409.9%
12/31/2017	\$24,934.4	\$29,677.4	\$4,743.1	84.0%	\$1,443.7	328.5%
12/31/2018	\$23,557.9	\$29,898.4	\$6,340.6	78.8%	\$1,401.2	452.5%
12/31/2019	\$25,091.5	\$30,274.5	\$5,183.0	82.9%	\$1,330.2	389.6%
Tier 1/Tier 2 Independent Employers and Judiciary						
12/31/2014 ⁵	\$4,967.4	\$6,104.9	\$1,137.4	81.4%	\$479.2	237.4%
12/31/2015 ⁴	\$4,807.6	\$6,327.1	\$1,519.5	76.0%	\$460.3	330.1%
12/31/2016	\$4,856.6	\$6,690.8	\$1,834.3	72.6%	\$437.3	419.5%
12/31/2017 ⁴	\$5,018.2	\$6,536.3	\$1,518.1	76.8%	\$392.6	386.7%
12/31/2018	\$4,756.2	\$6,736.3	\$1,980.1	70.6%	\$375.4	527.5%
12/31/2019 ⁴	\$5,061.3	\$6,916.0	\$1,854.7	73.2%	\$360.3	514.8%
OPSRP Rate Pool						
12/31/2014 ⁵	\$2,024.6	\$3,064.1	\$1,039.5	66.1%	\$4,182.7	24.9%
12/31/2015	\$2,389.1	\$3,742.5	\$1,353.5	63.8%	\$4,813.3	28.1%
12/31/2016	\$3,021.4	\$4,717.0	\$1,695.6	64.1%	\$5,355.8	31.7%
12/31/2017	\$4,116.5	\$5,634.7	\$1,518.2	73.1%	\$5,852.0	25.9%
12/31/2018	\$4,783.0	\$6,738.0	\$1,955.0	71.0%	\$6,775.9	28.9%
12/31/2019	\$6,190.4	\$8,082.2	\$1,891.8	76.6%	\$7,659.8	24.7%
Postemployment Healthcare Benefits - Retirement Health Insurance Account						
12/31/2014	\$395.9	\$468.4	\$72.5	84.5%	\$4,933.1	1.5%
12/31/2015	\$419.3	\$465.6	\$46.3	90.0%	\$4,730.8	1.0%
12/31/2016	\$465.0	\$463.7	(\$1.3)	100.3%	\$4,516.7	(0.0%)
12/31/2017	\$553.3	\$437.6	(\$115.7)	126.4%	\$4,246.9	(2.7%)
12/31/2018	\$570.7	\$411.7	(\$159.1)	138.6%	\$4,076.1	(3.9%)
12/31/2019	\$644.1	\$403.9	(\$240.3)	159.5%	\$3,873.9	(6.2%)
Postemployment Healthcare Benefits - Retiree Health Insurance Premium Account						
12/31/2014	\$7.2	\$70.5	\$63.3	10.2%	\$1,406.3	4.5%
12/31/2015	\$11.2	\$67.8	\$56.6	16.5%	\$1,339.4	4.2%
12/31/2016	\$19.1	\$67.9	\$48.8	28.1%	\$1,276.0	3.8%
12/31/2017	\$29.8	\$69.4	\$39.5	43.0%	\$1,212.2	3.3%
12/31/2018	\$38.5	\$62.7	\$24.3	61.3%	\$1,159.5	2.1%
12/31/2019	\$51.9	\$59.3	\$7.4	87.5%	\$1,120.6	0.7%

Notes:

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

² Excludes effect of Multnomah Fire District (net UAAL of \$142 million as of 12/31/2019).

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

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

⁵ The 12/31/2014 valuation reflects benefit changes from the Oregon Supreme Court's ruling in *Moro v. State of Oregon*, which overturned portions of Senate Bills 822 and 861.

Actuarial Schedules

Solvency Test

Pension and Retiree Healthcare Plans Combined

(dollar amounts in millions)

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

Valuation Date ²	Actuarial Accrued Liability ¹			Valuation Assets ^{1,3}	Portion of Actuarial Accrued Liabilities Covered by Assets		
	Active Member Contributions (1)	Retired Members and Beneficiaries (2)	Other Members (3)		(1)	(2)	(3)
	12/31/2010	\$8,407.9	\$34,432.5		\$17,070.2	\$51,821.6	100%
12/31/2011 ⁴	\$7,779.7	\$37,362.4	\$16,551.8	\$50,412.4	100%	100%	32%
12/31/2012 ⁵	\$7,704.9	\$36,759.3	\$16,473.1	\$55,080.1	100%	100%	64%
12/31/2013 ⁴	\$7,120.1	\$39,531.5	\$16,476.8	\$60,372.9	100%	100%	83%
12/31/2014 ⁶	\$6,950.4	\$46,576.7	\$20,470.8	\$61,798.3	100%	100%	40%
12/31/2015 ⁴	\$6,476.8	\$49,158.7	\$21,094.5	\$60,430.6	100%	100%	23%
12/31/2016	\$6,168.1	\$52,232.7	\$23,101.0	\$61,543.2	100%	100%	14%
12/31/2017 ⁴	\$5,585.9	\$55,636.9	\$23,340.3	\$67,909.2	100%	100%	29%
12/31/2018	\$5,153.6	\$57,297.7	\$24,597.8	\$65,411.5	100%	100%	12%
12/31/2019 ⁴	\$4,907.4	\$59,461.0	\$25,540.5	\$71,008.3	100%	100%	26%

¹ Includes effect of Multnomah Fire District (net UAAL of \$142 million as of 12/31/2019).

² An extensive revision of the actuarial assumptions occurs prior to each even-year valuation; therefore, the figures are not directly comparable.

³ Includes the value of UAL Lump Sum Side Accounts.

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

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

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

Actuarial Schedules

Solvency Test

Tier 1/Tier 2 Pension

(dollar amounts in millions)

Valuation Date ²	Actuarial Accrued Liability ¹			Valuation Assets ^{1,3}	Portion of Actuarial Accrued Liabilities Covered by Assets		
	Active Member Contributions (1)	Retired Members and Beneficiaries (2)	Other Members (3)		(1)	(2)	(3)
	12/31/2012 ⁴	\$7,704.9	\$36,377.3		\$14,527.4	\$53,594.0	100%
12/31/2013 ⁵	\$7,120.1	\$39,116.2	\$14,114.1	\$58,384.0	100%	100%	86%
12/31/2014 ⁶	\$6,950.4	\$46,113.5	\$17,331.0	\$59,370.6	100%	100%	36%
12/31/2015 ⁵	\$6,476.8	\$48,641.5	\$17,335.7	\$57,611.0	100%	100%	14%
12/31/2016	\$6,168.1	\$51,655.5	\$18,429.6	\$58,037.6	100%	100%	1%
12/31/2017 ⁵	\$5,585.9	\$54,967.4	\$17,868.1	\$63,209.7	100%	100%	15%
12/31/2018	\$5,153.6	\$56,534.9	\$18,148.3	\$60,019.3	100%	97%	0%
12/31/2019 ⁵	\$4,907.4	\$58,567.8	\$17,888.4	\$64,121.8	100%	100%	4%

¹ Includes effect of Multnomah Fire District (net UAAL of \$142 million as of 12/31/2019).

² An extensive revision of the actuarial assumptions occurs prior to each even-year valuation; therefore, the figures are not directly comparable.

³ Includes the value of UAL Lump Sum Side Accounts.

⁴ The 12/31/2012 valuation reflects the benefit changes enacted by the 2013 Oregon Legislature in Senate Bills 822 and 861, as well as a change in cost method to Entry Age Normal.

⁵ Reflects the transfer in assets and liabilities for newemployers that joined the SLGRP effective January 1 following the valuation date.

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

OPSRP Pension

(dollar amounts in millions)

Valuation Date ¹	Actuarial Accrued Liability			Valuation Assets	Portion of Actuarial Accrued Liabilities Covered by Assets		
	Active Member Contributions (1)	Retired Members and Beneficiaries (2)	Other Members (3)		(1)	(2)	(3)
	12/31/2012 ²	\$0.0	\$28.6		\$1,766.9	\$1,190.0	100%
12/31/2013	\$0.0	\$51.2	\$2,192.1	\$1,630.2	100%	100%	72%
12/31/2014 ³	\$0.0	\$92.4	\$2,971.6	\$2,024.6	100%	100%	65%
12/31/2015	\$0.0	\$144.6	\$3,597.9	\$2,389.1	100%	100%	62%
12/31/2016	\$0.0	\$201.1	\$4,515.9	\$3,021.4	100%	100%	62%
12/31/2017	\$0.0	\$310.1	\$5,324.5	\$4,116.5	100%	100%	71%
12/31/2018	\$0.0	\$419.0	\$6,318.9	\$4,783.0	100%	100%	69%
12/31/2019	\$0.0	\$554.3	\$7,527.9	\$6,190.4	100%	100%	75%

¹ An extensive revision of the actuarial assumptions occurs prior to each even-year valuation; therefore, the figures are not directly comparable.

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

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

Retiree Healthcare (RHIA and RHIPA)

(dollar amounts in millions)

Retiree Health Insurance Account (RHIA)							
Actuarial Accrued Liability							
Valuation Date ¹	Active Member Contributions (1)	Retired Members and Beneficiaries (2)	Other Members (3)	Valuation Assets	Portion of Actuarial Accrued Liabilities Covered by Assets		
					(1)	(2)	(3)
12/31/2012 ²	\$0.0	\$338.3	\$133.5	\$291.6	100%	86%	0%
12/31/2013	\$0.0	\$348.0	\$125.6	\$353.5	100%	100%	4%
12/31/2014	\$0.0	\$355.1	\$113.3	\$395.9	100%	100%	36%
12/31/2015	\$0.0	\$357.7	\$107.9	\$419.3	100%	100%	57%
12/31/2016	\$0.0	\$361.7	\$102.0	\$465.0	100%	100%	101%
12/31/2017	\$0.0	\$343.9	\$93.7	\$553.3	100%	100%	224%
12/31/2018	\$0.0	\$329.8	\$81.8	\$570.7	100%	100%	294%
12/31/2019	\$0.0	\$326.9	\$77.0	\$644.1	100%	100%	412%

¹ An extensive revision of the actuarial assumptions occurs prior to each even-year valuation; therefore, the figures are not directly comparable.

² The 12/31/2012 valuation reflects a change in cost method to Entry Age Normal.

Retiree Health Insurance Premium Account (RHIPA)							
Actuarial Accrued Liability							
Valuation Date ¹	Active Member Contributions (1)	Retired Members and Beneficiaries (2)	Other Members (3)	Valuation Assets	Portion of Actuarial Accrued Liabilities Covered by Assets		
					(1)	(2)	(3)
12/31/2012 ²	\$0.0	\$15.1	\$45.3	\$4.4	100%	29%	0%
12/31/2013	\$0.0	\$16.1	\$45.1	\$5.2	100%	33%	0%
12/31/2014	\$0.0	\$15.7	\$54.9	\$7.2	100%	46%	0%
12/31/2015	\$0.0	\$14.9	\$52.9	\$11.2	100%	75%	0%
12/31/2016	\$0.0	\$14.4	\$53.5	\$19.1	100%	100%	9%
12/31/2017	\$0.0	\$14.4	\$53.5	\$19.1	100%	100%	9%
12/31/2018	\$0.0	\$14.0	\$48.8	\$38.5	100%	100%	50%
12/31/2019	\$0.0	\$12.1	\$47.2	\$51.9	100%	100%	84%

¹ An extensive revision of the actuarial assumptions occurs prior to each even-year valuation; therefore, the figures are not directly comparable.

² The 12/31/2012 valuation reflects a change in cost method to Entry Age Normal.

Actuarial Schedules

Analysis of Financial Experience

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

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

(dollar amounts in millions)

Pension and Retiree Healthcare Plans	\$ Gain (or Loss) for Year	
	2019	2018
Type of Activity		
Retirements from Active Status	(\$119.4)	(\$87.6)
Active Mortality and Withdrawal	(38.4)	(38.0)
Pay Increases	(213.4)	(155.9)
Contributions	111.8	208.3
Interest Crediting Experience	(85.7)	88.5
Investment Income	3,547.4	(3,982.7)
Retirement, Mortality and Lump Sums from Inactive Status	7.0	(4.3)
Retiree and Beneficiary Mortality	5.1	(41.5)
New Entrants ¹	(110.3)	(82.6)
Other	79.1	15.2
Gain (or Loss) During Year from Financial Experience	\$3,183.2	(\$4,080.5)
Non-Recurring Items		
Assumption Changes	0.0	67.3
Plan Changes	0.0	52.1
Composite Gain (or Loss) During Year	\$3,183.2	(\$3,961.1)

¹ Accrued liability associated with newentrants is shown. For a full assessment of the newentrant effect on UAL, this would need to be combined with contributions associated with newentrants.

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

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

(dollar amounts in millions)

Tier 1/Tier 2 Pension Program	\$ Gain (or Loss) for Year	
	2019	2018
Type of Activity		
Retirements from Active Status	(\$119.0)	(\$82.2)
Active Mortality and Withdrawal	(14.6)	(10.8)
Pay Increases	(75.5)	(74.4)
Contributions	60.8	143.1
Interest Crediting Experience	(85.7)	88.5
Investment Income	3,207.6	(3,641.3)
Retirement, Mortality and Lump Sums from Inactive Status	4.4	(8.0)
Retiree and Beneficiary Mortality	3.5	(42.3)
New Entrants	(4.3)	(1.1)
Other	68.4	5.8
Gain (or Loss) During Year from Financial Experience	\$3,045.5	(\$3,622.6)
Non-Recurring Items		
Assumption Changes	0.0	60.0
Plan Changes	0.0	41.0
Composite Gain (or Loss) During Year	\$3,045.5	(\$3,521.6)

OPSRP Pension Program	\$ Gain (or Loss) for Year	
	2019	2018
Type of Activity		
Retirements from Active Status	(\$0.3)	(\$5.4)
Active Mortality and Withdrawal	(\$23.8)	(27.2)
Pay Increases	(\$137.9)	(81.4)
Contributions	\$45.7	61.0
Investment Income	\$301.8	(300.2)
Retirement, Mortality and Lump Sums from Inactive Status	\$2.5	3.7
Retiree and Beneficiary Mortality	\$1.6	0.8
New Entrants ¹	(\$106.0)	(81.5)
Other	(\$0.5)	(4.3)
Gain (or Loss) During Year from Financial Experience	\$83.2	(\$434.6)
Non-Recurring Items		
Assumption Changes	\$0.0	(13.7)
Plan Changes	\$0.0	11.1
Composite Gain (or Loss) During Year	\$83.2	(\$437.2)

Accrued liability associated with newentrants is shown. For a full assessment of the newentrant effect on UAL, this would need to be combined with contributions associated with newentrants.

The schedule below shows results from the retiree healthcare programs.

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

(dollar amounts in millions)

Retiree Healthcare Programs	\$ Gain (or Loss) for Year			
	RHIA		RHIPA	
	2019	2018	2019	2018
Type of Activity				
Contributions	\$4.3	\$3.2	\$1.0	\$0.9
Investment Income	35.7	(38.6)	2.3	(2.5)
Other	6.4	11.7	4.8	1.9
Gain (or Loss) During Year from Financial Experience	\$46.4	(\$23.7)	\$8.1	\$0.4
Non-Recurring Items				
Assumption Changes	0.0	14.7	0.0	6.4
Plan Changes	0.0	0.0	0.0	0.0
Composite Gain (or Loss) During Year	\$46.4	(\$9.0)	\$8.1	\$6.8

Actuarial Schedules

Schedules of Funding Progress

(dollar amounts in millions)

Actuarial Valuation Date	Actuarial Value of Assets ¹ (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a % of Covered Payroll ((b-a)/c)
Pension Benefits - Tier 1/Tier 2 and OPSRP²						
12/31/2010	\$51,583.6	\$59,329.5	\$7,746.0	86.9%	\$8,750.1	88.5%
12/31/2011 ³	\$50,168.2	\$61,198.4	\$11,030.2	82.0%	\$8,550.5	129.0%
12/31/2012 ⁴	\$54,784.1	\$60,405.2	\$5,621.1	90.7%	\$8,590.9	65.4%
12/31/2013 ³	\$60,014.1	\$62,593.6	\$2,579.5	95.9%	\$8,671.8	29.7%
12/31/2014 ⁵	\$61,395.2	\$73,458.9	\$12,063.7	83.6%	\$9,115.8	132.3%
12/31/2015 ³	\$60,000.1	\$76,196.6	\$16,196.5	78.7%	\$9,544.1	169.7%
12/31/2016	\$61,059.0	\$80,970.3	\$19,911.2	75.4%	\$9,872.6	201.7%
12/31/2017 ³	\$67,326.1	\$84,056.1	\$16,730.0	80.1%	\$10,098.9	165.7%
12/31/2018	\$64,802.3	\$86,574.7	\$21,772.4	74.9%	\$10,852.0	200.6%
12/31/2019 ³	\$70,312.3	\$89,445.7	\$19,133.5	78.6%	\$11,533.7	165.9%
Postemployment Healthcare Benefits - Retirement Health Insurance Account						
12/31/2010	\$232.3	\$547.1	\$314.8	42.5%	\$8,750.1	3.6%
12/31/2011	\$239.6	\$461.1	\$221.5	52.0%	\$8,550.5	2.6%
12/31/2012	\$291.6	\$471.8	\$180.2	61.8%	\$8,590.9	2.1%
12/31/2013	\$353.5	\$473.6	\$120.0	74.7%	\$8,671.8	1.4%
12/31/2014	\$395.9	\$468.4	\$72.5	84.5%	\$9,115.8	0.8%
12/31/2015	\$419.3	\$465.6	\$46.3	90.0%	\$9,544.1	0.5%
12/31/2016	\$465.0	\$463.7	(\$1.3)	100.3%	\$9,872.6	(0.0%)
12/31/2017	\$553.3	\$437.6	(\$115.7)	126.4%	\$10,098.9	(1.1%)
12/31/2018	\$570.7	\$411.7	(\$159.1)	138.6%	\$10,852.0	(1.5%)
12/31/2019	\$644.1	\$403.9	(\$240.3)	159.5%	\$11,533.7	(2.1%)
Postemployment Healthcare Benefits - Retiree Health Insurance Premium Account						
12/31/2010	\$5.7	\$33.9	\$28.2	16.8%	\$2,379.7	1.2%
12/31/2011	\$4.5	\$34.4	\$29.9	13.2%	\$2,376.9	1.3%
12/31/2012	\$4.4	\$60.3	\$55.9	7.4%	\$2,432.4	2.3%
12/31/2013	\$5.2	\$61.2	\$55.9	8.6%	\$2,531.5	2.2%
12/31/2014	\$7.2	\$70.5	\$63.3	10.2%	\$2,718.9	2.3%
12/31/2015	\$11.2	\$67.8	\$56.6	16.5%	\$2,831.8	2.0%
12/31/2016	\$19.1	\$67.9	\$48.8	28.1%	\$2,881.4	1.7%
12/31/2017	\$29.8	\$69.4	\$39.5	43.0%	\$2,984.5	1.3%
12/31/2018	\$38.5	\$62.7	\$24.3	61.3%	\$3,211.6	0.8%
12/31/2019	\$51.9	\$59.3	\$7.4	87.5%	\$3,479.8	0.2%

Notes:

¹ Side account assets are included with pension assets.

² Includes UAAL for Multnomah Fire District (\$142 million as of 12/31/2019).

³ Reflects the transfer in assets and liabilities for newemployers that joined the SLGRP effective January 1 following the valuation date.

⁴ The 12/31/2012 valuation reflects the benefit changes enacted by the 2013 Oregon Legislature in Senate Bills 822 and 861, as well as a change in cost method to Entry Age Normal.

⁵ The 12/31/2014 valuation reflects benefit changes from the Oregon Supreme Court's ruling in *Moro v. State of Oregon*, which overturned portions of Senate Bills 822 and 861.

Data Exhibits

This valuation is based upon the membership of the System as of December 31, 2019.

System Wide Data Exhibits

Valuation Pay and Census Exhibit

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

SLGRP

	General Service	Police & Fire	Total
Tier 1	\$690.5	\$122.7	\$813.2
Tier 2	1,065.7	304.6	1,370.3
Tier 1/Tier 2 Valuation Payroll	1,756.2	427.3	2,183.5
OPSRP Valuation Payroll	3,853.7	731.6	4,585.3
Combined Valuation Payroll	\$5,609.9	\$1,158.9	\$6,768.8

Amounts in millions

	December 31				
	2019				2018
	Tier 1	Tier 2	OPSRP	Total	Total
Active Members in the Pool					
General Service	8,000	13,333	59,889	81,222	79,351
Police & Fire	1,165	3,083	8,806	13,054	12,908
Total	9,165	16,416	68,695	94,276	92,259
Average Age	57.2	52.5	43.1	46.1	46.2
Average Service	27.1	19.0	6.7	10.8	10.9
Average prior year Covered Salary	\$91,916	\$83,988	\$63,110	\$69,546	\$66,670
Active Members outside the Pool with previous Segments in the Pool					
General Service	1,937	2,282		4,219	4,570
Police & Fire	194	322		516	545
Total	2,131	2,604		4,735	5,115
Average Age	55.9	50.0		52.7	52.3
Average Service in the Pool	3.2	2.9		3.0	3.0
Inactive Members¹					
General Service	6,959	7,607	11,042	25,608	25,742
Police & Fire	488	656	913	2,057	1,970
Total	7,447	8,263	11,955	27,665	27,712
Average Age	60.4	54.6	47.2	52.9	53.1
Average Monthly Benefit	\$2,073	\$847	\$488	\$1,022	\$1,009
Retired Members and Beneficiaries¹					
General Service	69,077	8,990	3,813	81,880	79,563
Police & Fire	10,142	1,366	350	11,858	11,402
Total	79,219	10,356	4,163	93,738	90,965
Average Age	72.5	68.3	67.6	71.8	71.5
Average Monthly Benefit	\$2,542	\$1,155	\$588	\$2,302	\$2,247
Grand Total Number of Members	97,962	37,639	84,813	220,414	216,051

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

School District Pool

	General Service	Police & Fire	Total
Tier 1	\$466.9	\$1.3	\$468.1
Tier 2	860.3	1.8	862.1
Tier 1/Tier 2 Valuation Payroll	1,327.1	3.0	1,330.2
OPSRP Valuation Payroll	2,408.6	1.9	2,410.6
Combined Valuation Payroll	\$3,735.8	\$5.0	\$3,740.7

Amounts in millions

	December 31				
	2019				2018
	Tier 1	Tier 2	OPSRP	Total	Total
Active Members					
General Service	6,800	13,238	52,733	72,771	71,152
Police & Fire	17	23	30	70	72
Total	6,817	13,261	52,763	72,841	71,224
Average Age	56.6	51.9	43.2	46.0	46.2
Average Service	26.1	18.4	6.8	10.7	10.8
Average prior year Covered Salary	\$69,832	\$65,535	\$43,507	\$49,981	\$48,495
Active Members outside the Pool with previous Segments in the Pool					
General Service	850	1,224		2,074	2,218
Police & Fire	4	8		12	9
Total	854	1,232		2,086	2,227
Average Age	56.9	51.2		53.5	53.3
Average Service	5.8	4.6		5.1	5.1
Inactive Members¹					
General Service	4,342	6,113	8,017	18,472	18,598
Police & Fire	8	17	8	33	33
Total	4,350	6,130	8,025	18,505	18,631
Average Age	61.2	54.5	48.6	53.5	53.5
Average Monthly Benefit	\$1,753	\$636	\$358	\$778	\$759
Retired Members and Beneficiaries¹					
General Service	63,162	6,214	1,865	71,241	69,763
Police & Fire	195	39	9	243	244
Total	63,357	6,253	1,874	71,484	70,007
Average Age	73.7	67.6	67.5	73.0	72.7
Average Monthly Benefit	\$2,471	\$854	\$444	\$2,277	\$2,241
Grand Total Number of Members	75,378	26,876	62,662	164,916	162,089

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

Independents

	General Service	Police & Fire	Total
Tier 1	\$95.1	\$40.4	\$135.5
Tier 2	130.9	93.9	224.7
Tier 1/Tier 2 Valuation Payroll	226.0	134.3	360.3
OPSRP Valuation Payroll	478.5	185.4	663.9
Combined Valuation Payroll	\$704.5	\$319.7	\$1,024.2

Amounts in millions

	December 31				
	2019				2018
	Tier 1	Tier 2	OPSRP	Total	Total
Active Members					
General Service	1,011	1,689	7,744	10,444	10,142
Police & Fire	324	825	2,047	3,196	3,138
Total	1,335	2,514	9,791	13,640	13,280
Average Age	55.7	51.4	41.6	44.8	45.0
Average Service	24.5	18.9	6.5	10.5	10.6
Average prior year Covered Salary	\$105,366	\$91,149	\$63,781	\$72,895	\$70,464
Active Members outside the Pool with previous Segments in the Pool					
General Service	710	1,073		1,783	1,891
Police & Fire	171	292		463	489
Total	881	1,365		2,246	2,380
Average Age	55.5	49.9		52.1	51.8
Average Service	4.9	4.2		4.5	4.4
Inactive Members¹					
General Service	855	1,132	1,233	3,220	3,375
Police & Fire	159	172	153	484	501
Total	1,014	1,304	1,386	3,704	3,876
Average Age	59.3	54.2	48.2	53.4	53.3
Average Monthly Benefit	\$1,554	\$712	\$484	\$857	\$789
Retired Members and Beneficiaries¹					
General Service	9,516	1,558	468	11,542	11,177
Police & Fire	3,334	223	44	3,601	3,505
Total	12,850	1,781	512	15,143	14,682
Average Age	70.9	67.6	67.6	70.4	70.1
Average Monthly Benefit ²	\$2,375	\$967	\$610	\$2,150	\$2,105
Grand Total Number of Members	16,080	6,964	11,689	34,733	34,218

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

² The average monthly benefit reflects an estimated adjustment for the effect of the Supreme Court decision in *Moro v. State of Oregon* for records that were not already adjusted in the data provided.

Total

	General Service	Police & Fire	Total
Tier 1	\$1,252.5	\$164.3	\$1,416.8
Tier 2	2,056.9	400.3	2,457.1
Tier 1/Tier 2 Valuation Payroll	3,309.3	564.6	3,873.9
OPSRP Valuation Payroll	6,740.9	919.0	7,659.8
Combined Valuation Payroll	\$10,050.2	\$1,483.5	\$11,533.7

Amounts in millions

	December 31				
	2019				2018
	Tier 1	Tier 2	OPSRP	Total	Total
Active Members					
General Service	15,811	28,260	120,366	164,437	160,645
Police & Fire	1,506	3,931	10,883	16,320	16,118
Total	17,317	32,191	131,249	180,757	176,763
Average Age	56.9	52.2	43.0	46.0	46.1
Average Service	26.5	18.8	6.7	10.7	10.9
Average prior year Covered Salary	\$84,259	\$76,946	\$55,279	\$61,914	\$59,632
Inactive Members¹					
General Service	12,156	14,852	20,292	47,300	47,715
Police & Fire	655	845	1,074	2,574	2,504
Total	12,811	15,697	21,366	49,874	50,219
Average Age	60.6	54.5	47.8	53.2	53.3
Average Monthly Benefit	\$1,923	\$753	\$439	\$919	\$900
Retired Members and Beneficiaries¹					
General Service	141,755	16,762	6,146	164,663	160,503
Police & Fire	13,671	1,628	403	15,702	15,151
Total	155,426	18,390	6,549	180,365	175,654
Average Age	72.8	68.0	67.6	72.2	71.8
Average Monthly Benefit	\$2,499	\$1,035	\$549	\$2,279	\$2,233
Grand Total Number of Members	185,554	66,278	159,164	410,996	402,636

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

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

Tier 1 General Service Active Members

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
35-39	4	0	0	0	0	0	0	0	0	4
\$	66,140	0	0	0	0	0	0	0	0	66,140
40-44	10	2	4	3	69	5	0	0	0	93
\$	144,666	111,414	64,376	104,304	76,515	66,411	0	0	0	84,425
45-49	12	26	45	79	770	349	9	0	0	1,290
\$	151,300	53,619	62,138	75,592	84,378	87,473	84,314	0	0	83,904
50-54	17	54	76	168	1,346	2,010	283	4	0	3,958
\$	125,075	83,908	77,877	70,671	83,903	86,716	83,595	100,570	0	84,826
55-59	10	46	100	175	1,189	2,211	1,115	132	4	4,982
\$	111,019	71,367	62,299	71,773	78,200	83,262	86,124	80,836	86,079	81,754
60-64	2	30	65	103	918	1,572	809	293	50	3,842
\$	153,446	79,089	79,995	66,417	69,584	78,077	84,123	87,348	74,172	77,744
65-69	2	10	25	50	297	534	279	109	54	1,360
\$	71,376	97,159	123,653	90,096	68,181	75,221	89,396	95,295	78,686	79,931
70-74	0	1	3	2	46	74	54	24	15	219
\$	0	153,446	89,712	116,167	58,779	90,402	82,557	120,131	142,127	89,140
75+	0	0	0	1	10	22	9	9	12	63
\$	0	0	0	65,889	52,998	75,984	70,937	92,370	103,561	79,048
Total	57	169	318	581	4,645	6,777	2,558	571	135	15,811
\$	126,543	76,500	74,725	72,912	78,262	82,709	85,433	88,909	86,493	81,670

Tier 2 General Service Active Members

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
30-34	0	0	3	5	0	0	0	0	0	8
\$	0	0	81,500	59,257	0	0	0	0	0	67,598
35-39	1	13	71	399	18	0	0	0	0	502
\$	6,597	52,026	66,220	68,509	71,569	0	0	0	0	67,745
40-44	8	99	380	3,066	539	0	0	0	0	4,092
\$	34,083	43,090	66,581	80,272	78,694	0	0	0	0	77,803
45-49	5	129	378	3,579	2,334	0	0	0	0	6,425
\$	23,292	48,586	65,188	80,438	83,743	0	0	0	0	80,057
50-54	9	83	252	3,220	2,212	0	0	0	0	5,776
\$	21,241	44,861	65,844	75,587	81,002	0	0	0	0	76,710
55-59	1	45	163	3,182	2,158	0	0	0	0	5,549
\$	9,284	44,549	62,308	67,694	73,142	0	0	0	0	69,457
60-64	6	36	103	2,320	1,711	0	0	0	0	4,176
\$	21,667	39,153	57,629	63,457	66,792	0	0	0	0	64,410
65-69	3	20	37	786	551	0	0	0	0	1,397
\$	22,557	36,267	54,723	64,191	66,550	0	0	0	0	64,381
70-74	2	11	11	155	93	0	0	0	0	272
\$	43,982	40,326	37,108	60,083	55,847	0	0	0	0	56,788
75+	1	2	3	40	17	0	0	0	0	63
\$	10,360	23,649	30,926	60,713	53,701	0	0	0	0	55,426
Total	36	438	1,401	16,752	9,633	0	0	0	0	28,260
\$	24,783	44,666	64,310	73,415	76,117	0	0	0	0	73,377



Tier 1 Police and Fire Active Members

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
40-44	0	0	0	0	11	0	0	0	0	11
\$	0	0	0	0	98,922	0	0	0	0	98,922
45-49	0	0	0	8	262	127	0	0	0	397
\$	0	0	0	86,186	119,455	121,809	0	0	0	119,537
50-54	0	2	4	8	255	280	25	0	0	574
\$	0	45,773	76,395	97,973	113,073	117,346	99,551	0	0	113,868
55-59	0	2	5	4	77	158	87	6	0	339
\$	0	166,490	58,276	123,103	108,492	111,151	106,096	85,695	0	108,487
60-64	1	0	2	1	42	56	32	12	3	149
\$	87,697	0	76,167	126,159	86,868	95,729	94,346	119,042	84,291	94,469
65-69	0	1	0	0	6	9	8	2	1	27
\$	0	13,788	0	0	78,823	85,813	85,610	88,189	78,147	81,424
70-74	0	0	0	0	0	2	2	0	2	6
\$	0	0	0	0	0	82,140	65,431	0	144,229	97,267
75+	0	0	0	0	1	2	0	0	0	3
\$	0	0	0	0	75,178	104,573	0	0	0	94,775
Total	1	5	11	21	654	634	154	20	6	1,506
\$	87,697	87,663	68,118	99,612	112,797	114,188	100,999	105,952	103,246	111,437



Tier 2 Police and Fire Active Members

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
35-39	0	1	8	73	4	0	0	0	0	86
\$	0	70,329	91,362	106,477	108,105	0	0	0	0	104,726
40-44	0	3	30	632	178	0	0	0	0	843
\$	0	47,040	95,110	107,748	108,970	0	0	0	0	107,340
45-49	0	0	18	651	712	0	0	0	0	1,381
\$	0	0	93,510	103,862	108,272	0	0	0	0	106,001
50-54	0	2	13	395	527	0	0	0	0	937
\$	0	62,342	74,670	99,581	105,834	0	0	0	0	102,673
55-59	0	1	7	189	222	0	0	0	0	419
\$	0	79,032	92,233	94,174	93,225	0	0	0	0	93,602
60-64	0	0	1	106	93	0	0	0	0	200
\$	0	0	68,129	79,243	86,155	0	0	0	0	82,402
65-69	0	0	2	30	26	0	0	0	0	58
\$	0	0	72,965	88,773	80,262	0	0	0	0	84,413
70-74	0	0	1	0	5	0	0	0	0	6
\$	0	0	48,853	0	106,459	0	0	0	0	96,858
75+	0	0	0	1	0	0	0	0	0	1
\$	0	0	0	66,840	0	0	0	0	0	66,840
Total	0	7	80	2,077	1,767	0	0	0	0	3,931
\$	0	59,309	89,333	101,948	104,143	0	0	0	0	102,602

All Tier 1/Tier 2 Active Members

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
30-34	0	0	3	5	0	0	0	0	0	8
\$	0	0	81,500	59,257	0	0	0	0	0	67,598
35-39	5	14	79	472	22	0	0	0	0	592
\$	54,232	53,333	68,766	74,381	78,212	0	0	0	0	73,106
40-44	18	104	414	3,701	797	5	0	0	0	5,039
\$	95,518	44,517	68,627	84,983	85,546	66,411	0	0	0	82,912
45-49	17	155	441	4,317	4,078	476	9	0	0	9,493
\$	113,651	49,431	66,033	83,893	90,440	96,634	84,314	0	0	86,005
50-54	26	141	345	3,791	4,340	2,290	308	4	0	11,245
\$	89,133	60,076	68,950	77,916	86,802	90,461	84,890	100,570	0	83,626
55-59	11	94	275	3,550	3,646	2,369	1,202	138	4	11,289
\$	101,770	60,634	62,993	69,368	76,761	85,122	87,570	81,047	86,079	76,952
60-64	9	66	171	2,530	2,764	1,628	841	305	53	8,367
\$	58,288	57,306	66,409	64,264	68,676	78,684	84,512	88,595	74,745	71,498
65-69	5	31	64	866	880	543	287	111	55	2,842
\$	42,085	55,184	82,219	66,538	67,589	75,397	89,291	95,167	78,676	72,393
70-74	2	12	15	157	144	76	56	24	17	503
\$	43,982	49,752	48,412	60,797	58,541	90,184	81,945	120,131	142,374	71,834
75+	1	2	3	42	28	24	9	9	12	130
\$	10,360	23,649	30,926	60,982	54,217	78,366	70,937	92,370	103,561	67,869
Total	94	619	1,810	19,431	16,699	7,411	2,712	591	141	49,508
\$	87,158	53,870	67,269	76,478	81,116	85,402	86,317	89,486	87,206	79,504

Age/Service and Prior Year Covered Payroll by Rate Pool

Tier 1/Tier 2 SLGRP Active Members

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
30-34	0	0	1	2	0	0	0	0	0	3
\$	0	0	99,435	71,702	0	0	0	0	0	80,947
35-39	0	3	36	271	22	0	0	0	0	332
\$	0	92,263	78,742	77,958	78,212	0	0	0	0	78,189
40-44	2	26	164	1,607	509	4	0	0	0	2,312
\$	76,613	52,440	75,533	87,290	86,683	66,656	0	0	0	85,885
45-49	0	54	173	2,074	2,075	322	7	0	0	4,705
\$	0	57,723	70,404	87,441	94,008	99,861	82,538	0	0	90,213
50-54	7	49	157	1,890	2,391	1,140	217	1	0	5,852
\$	24,888	59,665	77,275	85,505	90,991	94,676	88,296	158,856	0	89,139
55-59	0	48	144	1,734	1,948	1,230	641	94	4	5,843
\$	0	66,873	72,958	81,274	87,010	91,987	90,935	84,262	86,079	86,230
60-64	3	32	83	1,248	1,430	900	541	190	33	4,460
\$	57,180	65,664	77,001	75,698	82,569	91,945	90,519	90,370	82,341	83,591
65-69	2	10	34	488	517	313	198	77	35	1,674
\$	29,402	39,250	98,531	75,602	78,584	88,870	98,666	104,602	82,238	83,398
70-74	1	6	4	95	79	51	40	18	14	308
\$	44,622	53,745	83,337	73,469	68,621	107,110	91,686	140,086	155,614	87,439
75+	1	1	0	33	17	17	6	7	10	92
\$	10,360	19,473	0	65,975	53,676	97,159	82,068	109,620	107,033	77,188
Total	16	229	796	9,442	8,988	3,977	1,650	387	96	25,581
\$	38,298	59,941	75,646	83,240	88,229	93,331	91,329	94,556	95,717	86,828

Tier 1/Tier 2 School District Active Members

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
30-34	0	0	1	2	0	0	0	0	0	3
\$	0	0	80,044	29,769	0	0	0	0	0	46,528
35-39	1	8	37	143	0	0	0	0	0	189
\$	6,597	41,273	56,122	61,370	0	0	0	0	0	59,202
40-44	5	72	232	1,783	185	0	0	0	0	2,277
\$	16,281	40,272	61,217	80,032	73,081	0	0	0	0	76,153
45-49	5	93	238	1,893	1,629	81	0	0	0	3,939
\$	23,292	39,604	59,139	77,288	81,890	74,375	0	0	0	77,077
50-54	3	70	159	1,590	1,591	998	71	1	0	4,483
\$	11,390	38,247	55,388	66,694	77,154	82,685	71,944	76,116	0	73,169
55-59	2	34	108	1,582	1,424	986	478	36	0	4,650
\$	15,576	27,937	43,448	54,055	60,366	74,846	81,396	70,625	0	62,881
60-64	4	22	69	1,128	1,170	632	247	99	16	3,387
\$	11,539	25,051	44,879	50,170	49,883	58,262	67,977	79,853	60,108	53,477
65-69	1	14	20	316	299	199	70	27	17	963
\$	8,866	32,163	39,995	47,966	46,719	51,991	61,478	70,025	70,843	49,979
70-74	1	4	10	48	51	21	12	5	2	154
\$	43,343	13,369	23,640	34,883	38,115	45,767	33,481	50,917	52,540	36,844
75+	0	1	3	7	10	6	3	2	1	33
\$	0	27,826	30,926	42,595	57,787	32,673	48,673	31,993	18,953	43,080
Total	22	318	877	8,492	6,359	2,923	881	170	36	20,078
\$	16,734	36,550	54,913	66,312	67,697	72,072	74,526	74,902	63,614	66,994



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.

Tier 1/Tier 2 Independent Employers Active Members

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
30-34	0	0	1	1	0	0	0	0	0	2
\$	0	0	65,021	93,343	0	0	0	0	0	79,182
35-39	4	3	6	58	0	0	0	0	0	71
\$	66,140	46,564	86,883	89,747	0	0	0	0	0	86,351
40-44	11	6	18	311	103	1	0	0	0	450
\$	134,972	61,133	101,203	101,451	102,318	65,435	0	0	0	101,841
45-49	12	8	30	350	374	73	2	0	0	849
\$	151,300	107,689	95,517	98,586	107,880	107,099	90,532	0	0	104,115
50-54	16	22	29	311	358	152	20	2	0	910
\$	131,817	130,446	98,235	89,179	101,696	109,896	93,903	83,654	0	99,691
55-59	9	12	23	234	274	153	83	8	0	796
\$	120,924	128,319	92,386	84,664	89,095	96,144	97,133	90,165	0	91,042
60-64	2	12	19	154	164	96	53	16	4	520
\$	153,446	94,151	98,324	74,836	81,612	88,815	100,259	121,598	70,627	85,158
65-69	2	7	10	62	64	31	19	7	3	205
\$	71,376	123,989	111,207	89,851	76,278	89,607	94,058	88,356	81,515	87,821
70-74	0	2	1	14	14	4	4	1	1	41
\$	0	110,540	156,438	63,660	76,069	107,574	129,930	107,020	136,696	86,036
75+	0	0	0	2	1	1	0	0	1	5
\$	0	0	0	42,947	27,719	33,053	0	0	153,446	60,022
Total	56	72	137	1,497	1,352	511	181	34	9	3,849
\$	128,784	111,062	97,692	91,499	96,941	99,932	98,020	104,697	90,799	96,080



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OPSRP Active General Service Members

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20	103	0	0	0	0	0	0	0	0	103
\$	11,179	0	0	0	0	0	0	0	0	11,179
20-24	2,619	54	0	0	0	0	0	0	0	2,673
\$	26,630	30,339	0	0	0	0	0	0	0	26,705
25-29	8,922	1,379	12	0	0	0	0	0	0	10,313
\$	39,443	45,459	45,986	0	0	0	0	0	0	40,255
30-34	9,643	5,252	1,013	25	0	0	0	0	0	15,933
\$	45,790	54,542	58,658	49,926	0	0	0	0	0	49,499
35-39	9,011	6,035	5,020	647	0	0	0	0	0	20,713
\$	48,332	60,008	67,621	68,686	0	0	0	0	0	57,045
40-44	7,451	5,328	4,887	1,243	0	0	0	0	0	18,909
\$	48,565	60,521	69,873	74,674	0	0	0	0	0	59,157
45-49	5,723	4,590	4,252	1,104	0	0	0	0	0	15,669
\$	47,305	59,183	69,238	71,174	0	0	0	0	0	58,418
50-54	4,408	3,713	3,924	1,095	0	0	0	0	0	13,140
\$	47,935	57,036	63,014	63,922	0	0	0	0	0	56,342
55-59	3,380	2,906	3,260	1,188	0	0	0	0	0	10,734
\$	46,429	54,053	59,016	56,932	0	0	0	0	0	53,478
60-64	2,386	2,116	2,472	907	0	0	0	0	0	7,881
\$	43,588	53,290	57,908	57,602	0	0	0	0	0	52,298
65-69	1,016	914	915	342	0	0	0	0	0	3,187
\$	38,100	48,028	56,826	52,372	0	0	0	0	0	47,855
70-74	324	233	226	79	0	0	0	0	0	862
\$	26,911	34,959	48,254	57,161	0	0	0	0	0	37,454
75+	82	80	70	17	0	0	0	0	0	249
\$	19,827	29,074	33,775	31,479	0	0	0	0	0	27,515
Total	55,068	32,600	26,051	6,647	0	0	0	0	0	120,366
\$	44,558	56,534	64,618	64,679	0	0	0	0	0	53,255

OPSRP Active Police and Fire Members

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20	0	0	0	0	0	0	0	0	0	0
\$	0	0	0	0	0	0	0	0	0	0
20-24	309	3	0	0	0	0	0	0	0	312
\$	54,020	27,084	0	0	0	0	0	0	0	53,761
25-29	1,318	243	2	0	0	0	0	0	0	1,563
\$	63,927	75,839	65,039	0	0	0	0	0	0	65,780
30-34	1,121	869	225	3	0	0	0	0	0	2,218
\$	66,121	85,374	89,749	109,833	0	0	0	0	0	76,120
35-39	676	704	946	126	0	0	0	0	0	2,452
\$	65,753	82,718	93,095	97,671	0	0	0	0	0	82,813
40-44	379	431	715	189	0	0	0	0	0	1,714
\$	66,201	81,616	92,649	94,409	0	0	0	0	0	84,220
45-49	266	254	449	142	0	0	0	0	0	1,111
\$	64,543	79,109	88,248	94,729	0	0	0	0	0	81,311
50-54	147	182	268	70	0	0	0	0	0	667
\$	69,968	74,955	84,842	93,095	0	0	0	0	0	79,732
55-59	143	105	168	56	0	0	0	0	0	472
\$	75,709	79,873	80,219	89,013	0	0	0	0	0	79,819
60-64	63	61	117	26	0	0	0	0	0	267
\$	72,632	77,598	74,228	76,205	0	0	0	0	0	74,814
65-69	18	20	32	10	0	0	0	0	0	80
\$	72,161	73,071	79,999	68,987	0	0	0	0	0	75,127
70-74	2	8	7	7	0	0	0	0	0	24
\$	49,687	89,915	94,906	60,473	0	0	0	0	0	79,431
75+	0	1	2	0	0	0	0	0	0	3
\$	0	251,241	60,977	0	0	0	0	0	0	124,398
Total	4,442	2,881	2,931	629	0	0	0	0	0	10,883
\$	65,030	81,707	89,561	93,047	0	0	0	0	0	77,671



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All OPSRP Active Members

	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
<20	103	0	0	0	0	0	0	0	0	103
\$	11,179	0	0	0	0	0	0	0	0	11,179
20-24	2,928	57	0	0	0	0	0	0	0	2,985
\$	29,520	30,168	0	0	0	0	0	0	0	29,533
25-29	10,240	1,622	14	0	0	0	0	0	0	11,876
\$	42,595	50,010	48,708	0	0	0	0	0	0	43,615
30-34	10,764	6,121	1,238	28	0	0	0	0	0	18,151
\$	47,907	58,919	64,309	56,344	0	0	0	0	0	52,752
35-39	9,687	6,739	5,966	773	0	0	0	0	0	23,165
\$	49,547	62,381	71,660	73,410	0	0	0	0	0	59,772
40-44	7,830	5,759	5,602	1,432	0	0	0	0	0	20,623
\$	49,418	62,100	72,780	77,279	0	0	0	0	0	61,240
45-49	5,989	4,844	4,701	1,246	0	0	0	0	0	16,780
\$	48,071	60,228	71,053	73,858	0	0	0	0	0	59,934
50-54	4,555	3,895	4,192	1,165	0	0	0	0	0	13,807
\$	48,646	57,874	64,410	65,675	0	0	0	0	0	57,472
55-59	3,523	3,011	3,428	1,244	0	0	0	0	0	11,206
\$	47,618	54,953	60,055	58,376	0	0	0	0	0	54,588
60-64	2,449	2,177	2,589	933	0	0	0	0	0	8,148
\$	44,335	53,971	58,646	58,121	0	0	0	0	0	53,036
65-69	1,034	934	947	352	0	0	0	0	0	3,267
\$	38,693	48,564	57,609	52,844	0	0	0	0	0	48,523
70-74	326	241	233	86	0	0	0	0	0	886
\$	27,050	36,784	49,655	57,430	0	0	0	0	0	38,591
75+	82	81	72	17	0	0	0	0	0	252
\$	19,827	31,817	34,531	31,479	0	0	0	0	0	28,668
Total	59,510	35,481	28,982	7,276	0	0	0	0	0	131,249
\$	46,087	58,578	67,141	67,131	0	0	0	0	0	55,279



Inactive Member Data Exhibits

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

Total Tier 1/Tier 2

Inactive Members			Retirees and Beneficiaries		
	Count	Average Deferred Monthly Benefit		Count	Average Monthly Benefit
<20	0	\$0	<45	539	\$1,139
20-24	0	0	45-49	339	1,862
25-29	0	0	50-54	1,243	3,492
30-34	16	132	55-59	5,177	3,206
35-39	323	562	60-64	16,922	2,991
40-44	1,917	916	65-69	33,056	2,972
45-49	3,497	1,248	70-74	35,356	2,932
50-54	4,497	1,450	75-79	24,029	2,793
55-59	5,363	1,444	80-84	14,928	2,499
60-64	4,516	1,561	85-89	8,722	2,134
65-69	2,848	1,798	90-94	4,445	1,736
70-74	1,178	1,404	95-99	1,479	1,232
75+	1,271	1,620	100+	194	949
Total	25,426	\$1,434	Total	146,429	\$2,783

OPSRP

Inactive Members			Retirees and Beneficiaries		
	Count	Average Deferred Monthly Benefit		Count	Average Monthly Benefit
<20	0	\$0	<45	21	\$1,796
20-24	19	96	45-49	13	1,905
25-29	338	215	50-54	38	1,722
30-34	1,695	339	55-59	319	444
35-39	3,839	451	60-64	1,083	466
40-44	3,771	502	65-69	2,857	580
45-49	2,977	513	70-74	1,780	542
50-54	2,802	472	75-79	375	465
55-59	2,467	471	80-84	55	473
60-64	1,750	449	85-89	8	291
65-69	841	275	90-94	0	0
70-74	426	135	95-99	0	0
75+	441	64	100+	0	0
Total	21,366	\$439	Total	6,549	\$550

System-Wide Totals

Inactive Members			Retirees and Beneficiaries		
	Count	Average Deferred Monthly Benefit		Count	Average Monthly Benefit
<20	0	\$0	<45	560	\$1,163
20-24	19	96	45-49	352	1,864
25-29	338	215	50-54	1,281	3,439
30-34	1,711	337	55-59	5,496	3,046
35-39	4,162	460	60-64	18,005	2,839
40-44	5,688	641	65-69	35,913	2,782
45-49	6,474	910	70-74	37,136	2,818
50-54	7,299	1,075	75-79	24,404	2,757
55-59	7,830	1,138	80-84	14,983	2,491
60-64	6,266	1,251	85-89	8,730	2,132
65-69	3,689	1,451	90-94	4,445	1,736
70-74	1,604	1,067	95-99	1,479	1,232
75+	1,712	1,219	100+	194	949
Total	46,792	\$980	Total	152,978	\$2,687

Retiree Healthcare Member Data Exhibits

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

RHIA Members

	As of December 31, 2019	As of December 31, 2018
Dormant members		
Number	12,149	12,954
Average Age	55.2	54.9
Retired members eligible for deferred RHIA benefits		
Number	23,497	22,873
Average Age	60.6	60.2
Retired members receiving RHIA benefits		
Number	44,386	46,328
Average Age	76.9	76.2

RHIPA Members

	As of December 31, 2019	As of December 31, 2018
Active Tier 1/Tier 2 employees of RHIPA employers		
Number	13,452	14,688
Average Age	54.6	54.3
Average Service	22.1	21.5
Retired members receiving RHIPA benefits		
Number	842	984
Average Age	61.9	61.8
Average Monthly Subsidy Amount	399	382

Actuarial Methods and Assumptions

Tier 1/Tier 2 (including Retiree Healthcare)

Actuarial Methods and Valuation Procedures

In October 2019 the Board adopted the following actuarial methods and valuation procedures for the December 31, 2018 and 2019 actuarial valuations of PERS Tier 1/Tier 2 benefits.

Actuarial cost method

Entry Age Normal. Under the Entry Age Normal (EAN) cost method, each active member's **entry age present value of projected benefits** is allocated over the member's service from the member's date of entry until their assumed date of exit, taking into consideration expected future compensation increases. Thus, the total pension to which each member is expected to become entitled at retirement is broken down into units, each associated with a year of past or projected future credited service. Typically, when this method is introduced, there will be an initial liability for benefits credited for service prior to that date, and to the extent that the liability is not covered by assets of the plan, there is an unfunded accrued liability to be funded over a stipulated period in accordance with an amortization schedule.

A detailed description of the calculation follows:

- An individual member's **entry age present value of projected benefits** is the sum of the present value of the benefit described under the plan at each possible separation date, determined at the member's entry age using the projected compensation and service at each separation date.
 - An individual member's **entry age present value of projected salaries** is the sum of the present value of the projected compensation over the member's working career associated with each possible future separation date, determined at the member's entry age.
 - An individual member's **present value of projected benefits** is the sum of the present value of the benefit described under the plan at each possible separation date, determined at the valuation date using the projected compensation and service at each separation date.
 - An individual member's **normal cost** for a certain year is the member's **entry age present value of projected benefits** divided by the member's **entry age present value of projected salaries** and multiplied by the member's projected compensation for the year following the valuation date.
 - An individual member's **actuarial accrued liability** is the member's **present value of projected benefits** less the sum of the present value of the member's **normal costs** for each future year, determined at the valuation date using the projected compensation and service at each future year.
 - The plan's **normal cost** is the sum of the individual member normal costs, and the plan's **actuarial accrued liability** is the sum of the individual members' actuarial accrued liabilities.
-

<i>Tier 1/Tier 2 UAL amortization</i>	<p>The Tier 1/Tier 2 UAL amortization period was reset to 20 years as of December 31, 2013. Gains and losses between subsequent odd-year valuations have been amortized as a level percentage of projected combined valuation payroll (Tier 1/ Tier 2 plus OPSRP payroll) over a closed 20 year period from the valuation in which they are first recognized.</p> <p>Senate Bill 1049 was signed into law in June 2019 and requires 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 will set actuarially determined contribution rates for the 2021-2023 biennium.</p>
<i>Retiree Healthcare UAL amortization</i>	<p>The UAL for Retiree Health Care as of December 31, 2007 is amortized as a level percentage of projected combined valuation payroll (Tier 1/ Tier 2 plus OPSRP payroll) over a closed 10 year period. Gains and losses between subsequent odd-year valuations are amortized as a level percentage of combined valuation payroll over a closed 10 year period from the valuation in which they are first recognized.</p>
<i>Asset valuation method</i>	<p>The actuarial value of assets equals the market value of assets, excluding the Contingency and Capital Preservation Reserves, and the Rate Guarantee Reserve when it is in positive surplus status.</p> <p>Market values are reported to Milliman by PERS. It is our understanding that select real estate and private equity investments are reported on a three-month lag basis. This valuation report does not attempt to quantify any effects of the reporting lag.</p>
<i>Contribution rate stabilization method</i>	<p>Contribution rates for a rate pool (e.g. Tier 1/Tier 2 SLGRP, Tier 1/Tier 2 School Districts rate pool, OPSRP) are confined to a collared range based on the prior contribution rate (prior to application of side accounts, pre-SLGRP liabilities, and 6 percent Independent Employer minimum). The new contribution rate will generally not increase or decrease from the prior contribution rate by more than the greater of 3 percent of payroll or 20 percent of the prior contribution rate. If the funded percentage excluding side accounts drops below 60% or increases above 140%, the size of the collar doubles. If the funded percentage excluding side accounts is between 60% and 70% or between 130% and 140%, the size of the rate collar is increased on a graded scale.</p>
<i>Offset for Member Redirect Contributions</i>	<p>Under Senate Bill 1049, a portion of the 6% of pay member contribution otherwise made to the IAP is redirected to fund Tier 1/Tier 2 and OPSRP defined benefits beginning July 1, 2020. For Tier 1/Tier 2 members, the redirected amount will be 2.50% of pay, and for OPSRP it will be 0.75% of pay. Members with less than \$2,500 in monthly pay (indexed in future years) will be exempt from the redirection. For employer contribution rates shown in this valuation, member redirect contributions are assumed to offset total contribution rates beginning with the July 2021 – June 2023 biennium. Reflecting the effect of the monthly pay level-based exemption noted above, the offset is assumed to be 2.45% of total payroll for Tier 1/Tier 2 and 0.70% of total payroll for OPSRP.</p>
<i>Allocation of Liability for Service Segments</i>	<p>For active Tier 1/Tier 2 members who have worked for multiple PERS employers over their career, the calculated actuarial accrued liability is allocated among the employers based on a weighted average of the Money Match methodology, which uses account balance, and the Full Formula methodology, which uses service. The allocation is 10% (0% for police & fire) based on account balance with each employer and 90% (100% for police & fire) based on service with each employer. The entire normal cost is allocated to the current employer.</p>

<i>Allocation of Benefits-In-Force (BIF) Reserve</i>	The BIF reserve is allocated to each rate pool in proportion to the retiree liability attributable to the rate pool.
<i>Census Data</i>	<p>PERS staff provided the data on plan members and beneficiaries upon which this valuation is based. Milliman did not audit the data, but did review it for reasonableness and consistency with data provided for previous years, in accordance with Actuarial Standard of Practice No. 23.</p> <p>PERS staff assisted in resolving questions and inconsistencies discovered in the data review, and provided updated records or direction for adjusting data as needed.</p> <p>The final census data is expected to be sufficiently accurate and complete for purposes of the actuarial valuation, and we are not aware of any significant concerns or unresolved issues that would materially affect results.</p>
<i>Internal Revenue Code 415 Benefit Limits</i>	<p>Annual benefit limits under Internal Revenue Code 415 are not explicitly reflected in the valuation.</p> <p>In accordance with ORS 238.488, we understand that members whose benefits are restricted by IRC 415 benefit limits are paid the difference between the unrestricted benefit and the IRC 415-restricted benefit from the Public Employee Benefit Equalization Fund.</p>

Economic Assumptions

The Board adopted the following economic assumptions for the December 31, 2018 and 2019 actuarial valuations. All assumptions were reviewed and adopted in conjunction with the 2018 Experience Study, published in July 2019. The assumption selection process and rationale is described in detail in that report.

<i>Investment return</i>	7.20% compounded annually
<i>Pre-2014 Interest crediting</i>	8.00% compounded annually on members' regular account balances 8.25% compounded annually on members' variable account balances
<i>Post-2013 Interest crediting</i>	7.20% compounded annually on members' regular account balances 7.20% compounded annually on members' variable account balances
<i>Inflation</i>	2.50% compounded annually
<i>Administrative expenses</i>	\$32.5 million per year is added to the normal cost.
<i>Payroll growth</i>	3.50% compounded annually. This assumption represents the sum of the inflation assumption and a real wage growth assumption of 100 basis points.
<i>Healthcare cost trend</i>	Healthcare cost trend rates are used to estimate increases in the RHIPA Maximum Subsidy. These rates were developed with consideration of the excise tax scheduled to be introduced in 2022 by the Affordable Care Act. The excise tax was repealed in December 2019, and this will be reflected in the trend rates developed with the 2020 Experience Study, and we do not anticipate that update will materially affected calculated rates.

Year ¹	Rate	Year	Rate
2020	5.8%	2046 – 2047	5.5%
2021	5.2	2048 – 2050	5.4
2022 – 2024	5.0	2051 – 2053	5.3
2025	5.1	2054 – 2058	5.2
2026 – 2029	5.0	2059 – 2063	5.1
2030	5.4	2064	5.0
2031 – 2033	5.9	2065	4.9
2034	5.8	2066 – 2067	4.8
2035	5.9	2068	4.7
2036 – 2039	5.8	2069	4.6
2040	5.7	2070	4.5
2041	5.8	2071 – 2072	4.4
2042	5.7	2073	4.3
2043	5.8	2074 – 2093	4.2
2044	5.7	2094+	4.1
2045	5.6		

¹ For valuation purposes, the health cost trend rates are assumed to be applied at the beginning of the plan year.

Demographic Assumptions

The Board adopted the following demographic assumptions for the December 31, 2018 and 2019 actuarial valuations. All assumptions were reviewed and adopted in conjunction with the 2018 Experience Study, published in July 2019. The study relied on data from an observation period of January 1, 2015 to December 31, 2018, with the exception of the merit scale assumption, which relied on data from 2010 through 2018. Assumptions selected from the study represent an estimate of future experience based on relevant recent experience and reasonable expectations about the future.

Mortality

Healthy Retired Members and Beneficiaries

The following healthy annuitant mortality tables were first adopted in the December 31 valuation of the years shown.

Basic Table	Pub-2010 Healthy Retiree, Sex Distinct, Generational Projection with Unisex Social Security Data Scale	Valuation Year Adopted
School District male	Teachers, no set back	2018
Other General Service male*	General Employees, set back 12 months	2018
Police & Fire male	Public Safety, no set back	2018
School District female	Teachers, no set back	2018
Other General Service female**	General Employees, no set back	2018
Police & Fire female	Public Safety, set back 12 months	2018

* including male beneficiaries of members of all classes

** including female beneficiaries of members of all classes

Disabled Retired Members

The following disabled retiree mortality rates were first adopted for the December 31, 2018 actuarial valuation.

Basic Table	Pub-2010 Disabled Retiree, Sex Distinct, Generational Projection with Unisex Social Security Data Scale
Police & Fire male	Blended 50% Public Safety, 50% Non-Safety, no set back
Other General Service male	Non-Safety, set forward 24 months
Police & Fire female	Blended 50% Public Safety, 50% Non-Safety, no set back
Other General Service female	Non-Safety, set forward 12 months

Non-Annuitant Members

The following non-annuitant mortality tables were first adopted in the December 31 valuation of the years shown.

Basic Table	Pub-2010 Employee, Sex Distinct, Generational Projection with Unisex Social Security Data Scale	Valuation Year Adopted
School District male	120% of Employee table with same job category and set back as Healthy Retiree assumption	2018
Other General Service male	115% of Employee table with same job category and set back as Healthy Retiree assumption	2018
Police & Fire male	100% of Employee table with same job category and set back as Healthy Retiree assumption	2018
School District female	100% of Employee table with same job category and set back as Healthy Retiree assumption	2018
Other General Service female	125% of Employee table with same job category and set back as Healthy Retiree assumption	2018
Police & Fire female	100% of Employee table with same job category and set back as Healthy Retiree assumption	2018

Retirement Assumptions

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

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

Rates of Retirement from Active Status

The following retirement rate assumptions were first adopted in the December 31, 2018 valuation.

Age	Police & Fire			General Service			School Districts			Judges
	< 13 yrs	13-24 yrs	25+ yrs	< 15 yrs	15-29 yrs	30+ yrs	< 15 yrs	15-29 yrs	30+ yrs	
Less than 50						15.00%			25.00%	
50	1.50%	2.50%	27.50%			15.00%			25.00%	
51	1.50%	2.50%	21.50%			15.00%			25.00%	
52	1.50%	2.50%	21.50%			15.00%			25.00%	
53	1.50%	2.50%	21.50%			15.00%			25.00%	
54	1.50%	3.50%	21.50%			15.00%			25.00%	
55	3.00%	12.00%	25.00%	1.50%	2.50%	15.00%	1.50%	3.50%	25.00%	
56	3.00%	8.00%	25.00%	1.50%	2.50%	15.00%	1.50%	3.50%	25.00%	
57	3.00%	8.00%	25.00%	1.50%	2.50%	15.00%	1.50%	3.50%	25.00%	
58	6.00%	8.00%	25.00%	1.50%	9.00%	21.00%	1.50%	11.00%	27.50%	
59	6.00%	8.00%	25.00%	3.50%	9.00%	21.00%	4.50%	11.00%	27.50%	

Age	Police & Fire			General Service			School Districts			Judges
	< 13 yrs	13-24 yrs	25+ yrs	< 15 yrs	15-29 yrs	30+ yrs	< 15 yrs	15-29 yrs	30+ yrs	
60	6.00%	11.00%	25.00%	6.00%	11.00%	21.00%	6.50%	12.50%	27.50%	8.50%
61	6.00%	14.00%	25.00%	6.00%	11.00%	21.00%	6.50%	12.50%	27.50%	8.50%
62	15.00%	25.00%	38.00%	13.00%	19.50%	31.00%	15.00%	23.50%	34.00%	8.50%
63	15.00%	15.00%	28.00%	11.50%	16.50%	23.00%	13.00%	19.50%	26.50%	8.50%
64	15.00%	15.00%	28.00%	12.50%	16.50%	23.00%	13.00%	19.50%	31.50%	8.50%
65	100.00%	100.00%	100.00%	19.50%	28.00%	35.50%	25.50%	33.50%	45.00%	8.50%
66				27.50%	36.00%	40.50%	23.00%	36.50%	45.00%	8.50%
67				22.50%	26.50%	28.50%	21.00%	34.50%	42.00%	16.00%
68				19.50%	26.50%	28.50%	21.00%	28.00%	28.50%	16.00%
69				19.50%	26.50%	28.50%	21.00%	28.00%	28.50%	16.00%
70				100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Retirement from Dormant Status

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

Lump Sum Option at Retirement

Members retiring may elect to receive a full or partial lump sum at retirement. The probability that a retiring member will elect a lump sum at retirement is summarized in the table below. The total lump sum rates were first adopted effective December 31, 2016. The partial lump sum rate was first adopted effective December 31, 2018.

Lump Sum Option at Retirement	
Partial Lump Sum:	3.0% for all years
Total Lump Sum:	1.0% for 2019, declining by 0.5% per year until reaching 0.0%
No Lump Sum:	96.0% in 2019, increasing by 0.5% per year until reaching 97.0%

Purchase of Credited Service at Retirement

The following percentages of members are assumed to purchase service credit at time of retirement for the six-month waiting period that occurs prior to establishing membership in the system. These rates were first adopted effective December 31, 2018.

Purchase of Credited Service at Retirement	
Money Match Retirements:	0%
Non-Money Match Retirements:	70%

The cost of the service purchase is estimated based on assumed salary and contribution rates at entry age.

State Judiciary Member Plan Election

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

Disability Assumptions

There are two disability assumptions used in the valuation - duty disability and ordinary (non-duty) disability. Duty disability rates are separated between Police & Fire and General Service, while ordinary disability is the same for all members. The rates for ordinary disability and for duty disability for General Service were first adopted effective December 31, 2018. The rates for duty disability for Police & Fire were first adopted effective December 31, 2012.

Percentage of the 1985 Disability Class 1 Rates	
Duty Disability Police & Fire	20%
Duty Disability General Service	0.8%
Ordinary Disability	30% with 0.18% cap

Ordinary disability rates are not applied until the minimum service requirement for non-duty disability benefits is met. Disability decrement rates continue to be applied after retirement eligibility.

Termination Assumptions

The General Service termination assumptions were first adopted effective December 31, 2018. The School District termination assumptions were first adopted effective December 31, 2016. The Police & Fire termination assumption was first adopted effective December 31, 2014.

Sample termination rates are shown for each group below:

Duration from Hire Date	School District Male	School District Female	General Service Male	General Service Female	Police & Fire
0	16.63%	13.50%	15.00%	15.50%	10.00%
1	14.25%	12.50%	12.50%	14.50%	5.97%
5	6.86%	7.13%	7.19%	8.04%	3.31%
10	3.31%	3.85%	4.13%	4.77%	2.23%
15	2.30%	2.68%	2.93%	3.43%	1.50%
20	1.62%	1.95%	2.08%	2.47%	1.01%
25	1.20%	1.50%	1.47%	1.78%	0.80%
30+	1.20%	1.50%	1.40%	1.40%	0.80%

Termination rates are not applied after a member reaches retirement eligibility. For a complete table of rates, please refer to the 2018 Experience Study report for the System, published in July 2019.

Oregon Residency Post-Retirement

For purposes of determining eligibility for SB 656/HB 3349 benefit adjustments, 85% of retirees are assumed to remain Oregon residents after retirement. This assumption was first adopted effective December 31, 2012.

Police & Fire Unit Purchase

Police & Fire members retiring from active service prior to age 65 are assumed to purchase additional benefit units at an estimated employer matching cost of \$4,000.

Salary Increase Assumptions

The salary increase assumptions reflected in the actuarial valuation include:

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

Merit Scale Increases

Merit scale increases are based on duration of service for the following groups with sample rates shown in the following table. These rates were first adopted effective December 31, 2018, except for the Police & Fire assumption, which was adopted December 31, 2016.

Duration	School District	Other General Service	Police & Fire
0	3.72%	3.70%	4.44%
1	3.43%	3.37%	3.95%
5	2.34%	2.24%	2.39%
10	1.14%	1.21%	1.23%
15	0.17%	0.54%	0.69%
20	-0.53%	0.16%	0.52%
25	-0.89%	0.01%	0.44%
30+	-0.95%	0.00%	0.21%

The assumed merit scale increase for active State Judiciary members is 0.0%.

For a complete table of rates, please refer to the 2018 Experience Study for the System, published in July 2019.

Unused Sick Leave

Members covered by the provision allowing unused sick leave to be used to increase final average salary at time of retirement are assumed to receive increases in their final average salary in accordance with the table below. This adjustment is not applied to disability benefits. Effective dates for the current assumption are shown in the table.

Unused Sick Leave	Valuation year adopted
Actives	
• State General Service Male	7.00% 2018
• State General Service Female	3.75% 2010
• School District Male	7.75% 2018
• School District Female	5.75% 2012
• Local General Service Male	5.25% 2018
• Local General Service Female	3.50% 2018
• State Police & Fire	4.00% 2018
• Local Police & Fire	7.25% 2016
Dormant Members	3.25% 2016

Vacation Pay

Members eligible to include a lump sum payment of unused vacation pay in their final average salary calculation at time of retirement are assumed to receive increases in their final average salary in accordance with the table below. This adjustment is not applied to disability benefits. These rates were adopted December 31, 2018, except the school district rates which were adopted effective December 31, 2012.

Vacation Pay	
Tier 1	
• State General Service	2.25%
• School District	0.25%
• Local General Service	3.25%
• State Police & Fire	2.75%
• Local Police & Fire	4.25%
Tier 2	
	0.00%

Retiree Healthcare Participation

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

Retiree Healthcare Participation	
RHIPA	
• 8 – 9 years of service	10.0%
• 10 – 14 years of service	10.0%
• 15 – 19 years of service	15.0%
• 20 – 24 years of service	19.0%
• 25 – 29 years of service	26.0%
• 30+ years of service	34.0%
RHIA	
• Healthy Retired	32.0%
• Disabled Retired	20.0%

The RHIA disabled retired rate was first adopted December 31, 2008. The RHIA healthy retired rate and RHIPA rates for 15 or more years of service were adopted December 31, 2018. RHIPA Rates up through 14 years of service were first adopted effective December 31, 2012

Spouse Assumptions

Non-annuitant death benefits are valued assuming all members are married. Future participants in RHIA and RHIPA are assumed to have eligible spouses. For these purposes, the spouse is assumed to be three years younger than a male member or three years older than a female member.

Actuarial Equivalence Assumptions

Early retirement factors and optional form conversion factors are assumed to remain level in all future years.

For members with pop-up annuities, the future amount payable if the spouse predeceases the member is estimated based on an assumed 0.90 optional form conversion factor for 100% contingent annuities and an assumed 0.94 optional form conversion factor for 50% contingent annuities.

OPSRP

Most of the methods and assumptions adopted for the OPSRP valuation are the same as those used for Tier 1/Tier 2. The methods and assumptions that differ for OPSRP are summarized below. The Board adopted the following methods, procedures and assumptions for the December 31, 2018 and December 31, 2019 actuarial valuations.

Actuarial Methods and Valuation Procedures

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

<i>Administrative expenses</i>	\$8.0 million per year is added to the normal cost.
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Demographic Assumptions

Rates of Retirement from Active Status

Age	Police & Fire			General Service			School Districts		
	< 13 yrs	13-24 yrs	25+ yrs	< 15 yrs	15-29 yrs	30+ yrs	< 15 yrs	15-29 yrs	30+ yrs
50	0.50%	1.50%	5.50%						
51	0.50%	1.50%	5.50%						
52	0.50%	1.50%	5.50%						
53	0.50%	1.50%	25.00%						
54	0.50%	1.50%	21.50%						
55	2.00%	5.00%	25.00%	1.00%	2.50%	5.00%	1.00%	2.50%	5.00%
56	2.00%	5.00%	25.00%	1.00%	2.50%	5.00%	1.00%	2.50%	5.00%
57	2.00%	5.00%	25.00%	1.00%	2.50%	7.50%	1.00%	2.50%	7.50%
58	5.00%	5.00%	25.00%	1.50%	3.00%	30.00%	1.50%	3.00%	30.00%
59	5.00%	5.00%	25.00%	2.00%	3.00%	25.00%	1.50%	3.00%	25.00%
60	5.00%	15.00%	25.00%	3.00%	3.75%	20.00%	2.50%	3.75%	20.00%
61	5.00%	8.50%	25.00%	3.00%	5.00%	20.00%	3.00%	5.00%	20.00%
62	10.00%	25.00%	38.00%	8.00%	12.00%	30.00%	6.00%	12.00%	30.00%
63	7.00%	15.00%	28.00%	7.00%	10.00%	20.00%	6.00%	10.00%	20.00%
64	7.00%	15.00%	28.00%	7.00%	10.00%	20.00%	6.00%	10.00%	20.00%
65	100.00%	100.00%	100.00%	14.50%	35.00%	20.00%	11.50%	35.00%	20.00%
66				18.50%	33.00%	20.00%	12.50%	33.00%	20.00%
67				17.00%	22.00%	30.00%	11.00%	22.00%	30.00%
68				13.00%	17.00%	20.00%	9.00%	17.00%	20.00%
69				13.00%	17.00%	20.00%	9.00%	17.00%	20.00%
70				100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Retirement from Dormant Status

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

Disability Assumptions

Assumed disability rates are not applied to OPSRP members after they reach Normal Retirement Age.

Cost of living increases for the adjusted salary used to calculate retirement benefits for disabled OPSRP members are estimated based on the valuation inflation assumption.

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

A summary of key changes implemented since the December 31, 2018 valuation are described briefly below.

Changes in Actuarial Methods and Allocation Procedures

There were no changes to actuarial methods and procedures since the December 31, 2018 actuarial valuation.

Changes in Economic Assumptions

There were no changes to economic assumptions since the December 31, 2018 actuarial valuation.

Changes in Demographic Assumptions

There were no changes to demographic assumptions since the December 31, 2018 actuarial valuation.

Summary of Plan Provisions

Summary of Plan Provisions

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

<i>Membership</i>	All employees of public employers participating in this System who are in qualifying positions become members of the System after completing six months of service except those who are eligible for and have elected to participate in an optional retirement plan. Different benefit provisions of the plan apply based on date of hire.	
	Tier 1	Hired prior to 1996
	Tier 2	Hired after 1995 and before August 29, 2003
	OPSRP	Hired after August 28, 2003, and neither a judge nor a former Tier 1/Tier 2 member eligible to reestablish Tier 1/Tier 2 membership
	Judges	Members of the State Judiciary
<i>Member Contributions</i>	Judges	7% of salary
	All others	None as of valuation date Prior to January 1, 2004, Tier 1/Tier 2 members contributed 6% of salary to member accounts. Effective July 1, 2020: 2.50% of salary for Tier 1/Tier 2 members and 0.75% of salary for OPSRP members (only applicable to members earning at least \$2,500 per month, indexed for inflation) will be contributed to Employee Pension Stability Accounts (EPSA). EPSA balances will not affect the calculation of Money Match or Formula Plus Annuity benefits.
<i>Employer Contributions</i>	Set by the PERS Board based on actuarial calculations that follow Board rate-setting policies for employers.	

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

<i>Normal Retirement Date</i>	Police and Fire	Age 55
	Judges	Age 65
	Tier 1 General Service	Age 58
	Tier 2 General Service	Age 60

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

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

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

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

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

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

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

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

Final Average Salary The greater of:

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

Covered salary for this purpose includes the value of member contributions assumed and paid by employers, any payment due to an employer’s participation in the Unused Sick Leave program, and, for Tier 1 members, lump sum payment of unused vacation time. For Tier 2 members, covered salary is limited by Internal Revenue Code 401(a)(17). The limit was \$280,000 in 2019. Tier 1 members are not subject to this limit.

Under Senate Bill 1049, passed during the 2019 legislative session, the salary included in the determination of Final Average Salary will be limited for all members beginning in 2020. The limit will be equal to \$195,000 in 2020, and will be indexed with inflation in later years. For this purpose, payment due to the unused sick leave program will not be affected by the Final Average Salary limit. However, lump sum payments of unused vacation time for Tier 1 members will be included in total salary subject to the limit.

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

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

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

SB 656 Increase	Years of Service	General Service	Police & Fire
	0-9	0.0%	0.0%
	10-14	1.0	1.0
	15-19	1.0	1.0
	20-24	2.0	2.5
	25-29	3.0	4.0
	30 & Over	4.0	4.0

HB 3349 Increase

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

<i>Early Retirement Eligibility</i>	Police and Fire Judges General Service	Age 50 or 30 years of service Age 60 Age 55 or 30 years of service
<i>Early Retirement Allowance</i>		Normal retirement allowance, actuarially reduced to early retirement age. However, there is no reduction applied if a member has completed 30 years of service (25 years for police & fire members) or for judges in Plan B.
<i>Vesting</i>		Contributions made in any part of five calendar years or attainment of age 50 (45 for police & fire) while working in a qualifying position.
<i>Termination Benefits</i>	Non-Vested Vested	Payment of member's account balance. Same as normal (or early) retirement allowance, but commencement is deferred to normal (or early) retirement date.
<i>Optional Forms of Retirement Allowance</i>		The normal form of benefit is a cash refund annuity (joint and two-thirds survivor contingent annuity for a married judge). All optional amounts are adjusted to be actuarially equivalent. Options Available <ul style="list-style-type: none"> • Life annuity • Cash refund annuity • Life annuity guaranteed 15 years • Joint and 50% or 100% survivor contingent annuity, with or without pop-up feature • Partial Lump Sum: Refund of member contribution account balance plus a pension (under any optional form) of employer-paid portion of the Full Formula or Money Match annuity. • Total Lump Sum: Refund of member contribution account plus a matching employer amount.
<i>Preretirement Death Benefit Eligibility</i>	Judges All others	Six or more years of service. Death occurring while the member is an employee of a participating employer or within 120 days of termination provided the employee does not withdraw the account balance or retire, or a result of injuries received while in the service of a participating employer.
<i>Preretirement Death Benefit</i>	Judges All others	The spouse shall receive a life pension equal to two-thirds of the service retirement allowance. The beneficiary of an unmarried judge shall receive the member's accumulated contributions with interest. The member's account balance plus a matching employer amount.
<i>Additional Police & Fire Death Benefits</i>		Upon the death of a retired police officer or firefighter, the surviving spouse or dependent children under age 18 will receive a monthly benefit based on 25% of the cash refund retirement allowance due to police and fire service.
<i>Disability Benefit Eligibility</i>	Duty Non-Duty	Disability occurring as a direct result of a job-related injury or illness, regardless of length of service. Disability occurring after ten years of service (six years, if a judge), but prior to normal retirement eligibility.

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

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

	Benefit Amount	A monthly contribution of up to \$60 per retiree is applied to PERS-sponsored Medicare supplemental insurance costs.
<i>Retiree Healthcare – Under Age 65 (RHIPA)</i>	Retiree Eligibility	Retired PERS members who were state employees at the time of retirement, are enrolled in a PERS-sponsored health plan, and are not eligible for Medicare.
	Surviving Spouse or Dependent Eligibility	A surviving spouse or dependent of a deceased RHIPA-eligible retiree is eligible for RHIPA benefits if they are not yet eligible for Medicare, and <i>either</i> of the following criteria are met: (a) Currently receiving a retirement allowance from the System, or (b) The surviving spouse or dependent was covered under the eligible retiree’s PERS-sponsored health plan at the time of the retiree’s death and the deceased retiree retired on or after September 29, 1991.
	Benefit	A percentage (as shown in the table below) of the maximum monthly subsidy based on years of service. The maximum monthly subsidy is calculated annually as the average difference between the health insurance premiums paid by active state employees and the premium retirees would pay if they were rated separately from active state employees. The maximum monthly subsidy for 2020 is \$428.17 per month.

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

Changes in Plan Provisions There were no changes in the Tier 1/Tier 2 benefit provisions reflected since the December 31, 2018 actuarial valuation.

Summary of Chapter 238A Provisions — OPSRP

<i>Normal Retirement Date</i>	<p>Police & Fire Age 60 or age 53 with 25 years of retirement credit</p> <p>General Service Age 65 or age 58 with 30 years of retirement credit</p> <p>School Districts Age 65 or age 58 with 30 calendar years of active membership</p>
<i>Normal Retirement Allowance</i>	A single life annuity equal to final average salary times years of retirement credit attributable to service as fire and police times 1.8% plus final average salary times all other years of retirement credit times 1.5%.
<i>Final Average Salary</i>	<p>The greater of:</p> <ul style="list-style-type: none"> • Average salary earned during the three calendar years in which the member was paid the highest salary, even if one of those years is less than a full calendar year. • Total salary earned over the last 36 months of employment divided by the actual months of service during that 36 month period. <p>Covered salary for this purpose includes base pay, plus overtime up to an average amount, plus bonuses, plus member contributions paid by the employer on a salary reduction basis. Excludes payments of unused vacation or accumulated sick leave at retirement, and member contributions “assumed and paid” by the employer.</p> <p>For OPSRP members, covered salary is limited by Internal Revenue Code 401(a)(17) The limit was \$280,000 in 2019.</p> <p>Under Senate Bill 1049 passed during the 2019 legislative session, the salary included in the determination of Final Average Salary will be limited for all members beginning in 2020. The limit will be equal to \$195,000 in 2020, and will be indexed with inflation in later years.</p>
<i>Early Retirement Eligibility</i>	<p>Police & Fire Age 50 and 5 years of vesting service</p> <p>General Service Age 55 and 5 years of vesting service</p>
<i>Early Retirement Allowance</i>	Normal retirement allowance, actuarially reduced to early retirement age.
<i>Vesting</i>	Five years or attainment of normal retirement age.
<i>Vested Termination Benefit</i>	Same as normal (or early) retirement allowance, but commencement is deferred to normal (or early) retirement date.
<i>Optional Forms of Retirement Benefit</i>	<p>The normal form of benefit is a life annuity. All optional amounts are adjusted to be actuarially equivalent.</p> <p>Options Available</p> <ul style="list-style-type: none"> • Life annuity • Joint and 50% or 100% survivor contingent benefit, with or without pop-up feature • Lump sum if monthly normal retirement benefit is less than \$200 or if lump sum value is less than \$5,000.
<i>Preretirement Death Benefit Eligibility</i>	Death of a vested member before retirement benefits begin.

<i>Preretirement Death Benefit</i>	If member was eligible for early retirement, the actuarial equivalent of 50% of the early retirement benefit the participant was eligible to receive at date of death. If member was not eligible for early retirement, the actuarial equivalent of 50% of the early retirement benefit the participant would have been eligible to receive if he terminated employment on his date of death and retired at the earliest possible date.	
<i>Disability Benefit Eligibility</i>	Duty	Disablement occurring as a direct result of a job-related injury or illness, regardless of length of service.
	Non-Duty	Disablement occurring after ten years of service, but prior to normal retirement eligibility.
<i>Disability Benefit Amounts</i>	Preretirement Benefit	45% of salary during last full month of employment before disability, reduced if the total benefit exceeds 75% of salary. Benefit is payable monthly until normal retirement age.
	Retirement Benefit	Same formula as Normal Retirement Benefit, except: Final average salary is adjusted to reflect cost-of-living increases from date of disability to normal retirement age, and Retirement credits continue to accrue from date of disability to normal retirement age.
<i>Postretirement Adjustments</i>	All monthly pension and annuity benefits except unit purchases are eligible for postretirement adjustments. As a result of the Senate Bills 822 and 861 and the Oregon Supreme Court decision in <i>Moro v. State of Oregon</i> , automatic postretirement adjustments are based on a blended COLA as described below.	
	Automatic COLA prior to SB 822 and SB 861	Benefits were adjusted annually to reflect the increase or decrease in the Consumer Price Index (Portland area - all items) as published by the Bureau of Labor Statistics. The maximum adjustment to be made for any year was 2% of the previous year's benefit. Any CPI change in excess of the limit was accumulated for future benefit adjustments which would otherwise be less than the limit. No benefit was decreased below its original amount.
	Automatic Adjustments Provided by Senate Bills 822 and 861	This legislation, passed in 2013, provided for that benefits would be increased annually based on a marginal rate schedule. The increase is calculated as 1.25% on the first \$60,000 of annual benefit and 0.15% on amounts above \$60,000 of annual benefit.
<i>Changes in Plan Provisions</i>	There were no changes in the OPSRP benefit provisions reflected since the December 31, 2018 actuarial valuation.	

Risk Disclosure



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.

Risk Disclosure

The purpose of this appendix is to identify, assess, and provide illustrations of risks that are significant to Oregon PERS, and in some cases to PERS members.

The results of any actuarial valuation are based on one set of assumptions. Although we believe the current assumptions for the System provide a reasonable estimate of future expectations, it is almost certain that future experience will differ from the assumptions to some extent. It is therefore important to consider the potential impacts of these potential differences between assumptions and experience when making decisions that may affect the future financial health of the System, or of the System's members.

Actuarial Standard of Practice No. 51 (ASOP 51) addresses these issues by providing actuaries with guidance for assessing and disclosing the risk associated with measuring pension liabilities and the determination of pension plan contributions. Specifically, it directs the actuary to:

- Identify risks that may be significant to the plan.
- Assess the risks identified as significant to the plan. The assessment does not need to include numerical calculations.
- Disclose plan maturity measures and historical information that are significant to understanding the plan's risks.

ASOP 51 states that if in the actuary's professional judgment, a more detailed assessment would be significantly beneficial in helping the individuals responsible for the plan to understand the risks identified by the actuary, then the actuary should recommend that such an assessment be performed.

This Section uses the framework of ASOP 51 to communicate important information about significant risks to the System, the System's maturity, and relevant historical data.

Identification of Risks

There are a number of factors that affect future valuation results. To the extent actual experience for these factors varies from the assumptions, this will likely cause either increases or decreases in the System's future funding level and calculated contribution rates. Examples of factors that can have a significant impact on valuation results are:

- Investment return, as this will impact the level of assets available to pay benefits
- Change in combined (Tier 1/Tier 2 and OPSRP) valuation payroll, as this will impact the size of contributions received and the ability to finance unfunded amounts as a percent of future pay
- Legislative changes and judicial rulings, as these can impact both benefit levels and contribution rates
- Individual member salary variation, as this will impact the size of benefits members receive as a percent of final earnings
- Mortality, as this will impact how long retirees receive benefits
- Service retirement, as this will impact how long retirees receive benefits, the size of retiree benefits, the amount of time over which employer and employee contributions are received, and the amount of time for investment earnings to accumulate on those contributions
- Termination (members leaving active employment for reasons other than death, disability or service retirement), as this will impact the size of benefits for those members

Investment Return

Of the factors listed above, we believe the factor with the greatest potential risk is future investment returns. For this reason, we prepare a financial modeling analysis for the PERS Board each year that illustrates a wide range of potential future investment returns. In that analysis, we perform both deterministic and stochastic projections to study the impact of various investment return scenarios on future system-average contribution rates and funded status compared to the case in which the actual investment rate of return matches the assumed investment rate of return.

System Payroll Growth

Under the current funding policy, UAL amounts are amortized as a level percentage of projected combined valuation payroll over the selected amortization period. If the System's payroll grows at the assumed rate, and all other assumptions are met, this would produce a UAL contribution rate that remains level as a percentage of payroll during the amortization period. However, if payroll grows less than assumed, the dollar amount of contributions will be less than projected, and the UAL contribution rate in subsequent valuations would have to increase to make up for those UAL losses.

Legislative Changes and Judicial Rulings

Legislative changes and judicial rulings can affect both benefit levels and contribution rates. Examples include 2013 legislative changes, which reduced COLA levels and directed the PERS Board to reduce previously-adopted contribution rates; a 2015 judicial ruling, which overturned much of the previous reduction to COLA levels; and 2019 legislative changes, which directed the PERS Board to re-amortize Tier 1/Tier 2 UAL over a new 22-year period and redirected a portion of Member IAP contributions to offset future employer contribution rates. If future legislative changes limit or reduce short-term contributions, then contribution rates may need to be increased in future to make up the shortfall. And if future judicial rulings overturn past benefit changes, then future contribution rates may need to be increased to cover the resulting impact on liabilities.

Demographic Experience

While future investment returns will likely cause the greatest deviation from expected experience, there are many other assumptions made in an actuarial valuation. For these assumptions, differences between actual and assumed experience will also result in actuarial gains and losses. The executive summary of this report provides a look at the impact in the past year of actual experience deviating from assumed.

Maturity Measures and Historical Information

The remainder of this section contains historical information concerning the System's Asset Volatility Ratio (AVR) and Liability Volatility Ratio (LVR). Additional historical information can be found in the executive summary and the *Accounting/CAFR Exhibits* section.

Asset Volatility Ratios and Liability Volatility Ratios

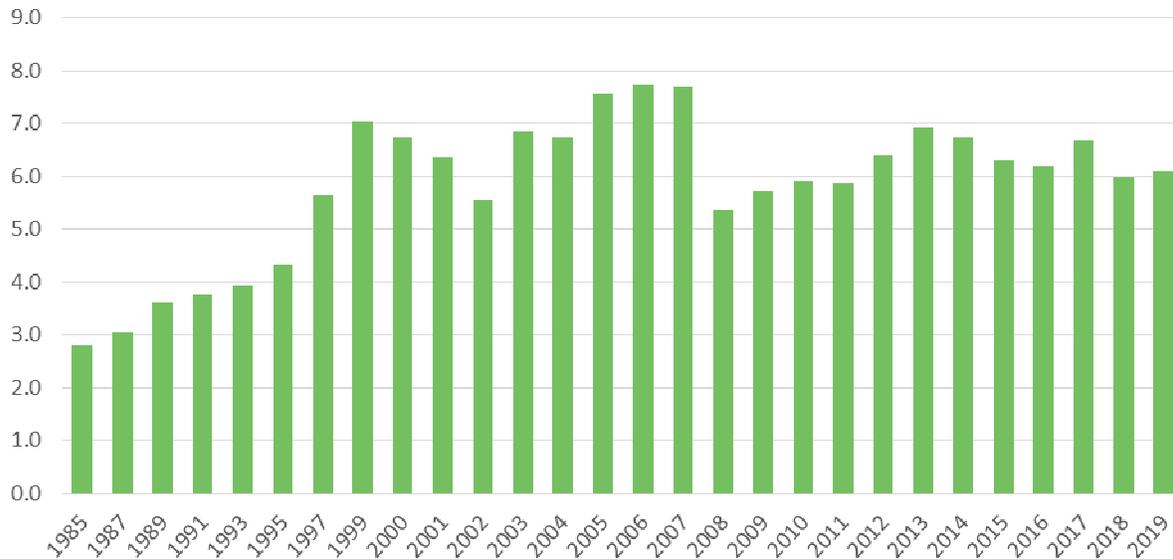
The magnitude of any contribution rate increase or decrease is affected by the System's maturity level. As a system matures, its liabilities and assets tend to grow relative to the size of its covered payroll. This creates more volatility in the contributions needed to fund the system.

One indicator of this potential volatility is the Asset Volatility Ratio (AVR), which is equal to the market value of assets divided by total valuation payroll. As assets grow compared to valuation payroll, any percentage gain or loss on those assets will be larger compared to valuation payroll. This causes any resulting changes in required contributions from those gains or losses to also be larger when measured as a percentage of valuation payroll. Therefore, plans with a high AVR will be subject to a greater level of volatility in required

contributions. The AVR is a current measure since it is based on the current level of assets and will vary from year to year.

The current AVR on a combined basis for Tier 1/Tier 2 and OPSRP (including side accounts) is 6.1. The AVR grew from 2.8 at December 31, 1985 to a high of 7.7 at December 31, 2006. The graph below shows how the System matured during the last 34 years, as represented by the increasing AVR.

Asset Volatility Ratio (Market Value of Assets ÷ Valuation Payroll)



The following chart provides an illustration of how increases in the AVR increase the volatility of contributions due to the larger relative size of asset gains and losses.

Illustrative effect of 10% asset loss (compared to assumed rate) with 20 year amortization using PERS assumptions	
Asset Volatility Ratio	Uncollared Contribution Rate Increase
3.0	2.12%
4.0	2.82%
5.0	3.53%
6.0	4.24%
7.0	4.94%

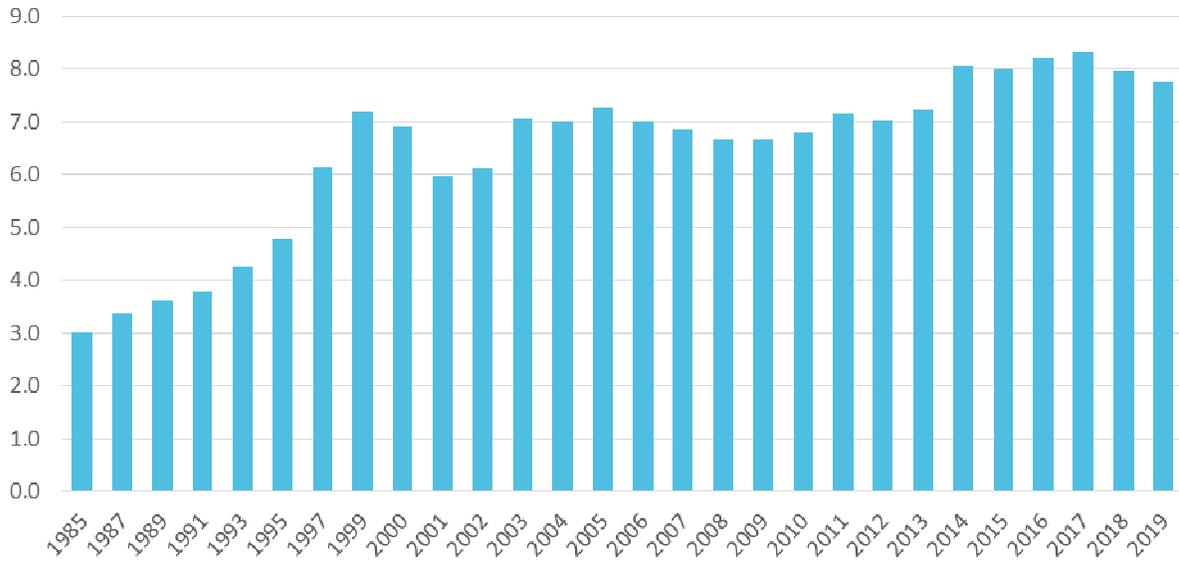
A one-year return of negative 2.80% is approximately a 10% asset loss for Oregon PERS because it is 10% below the 7.20% investment return assumption. As shown in the chart, if a return of negative 2.80% is not offset by future gains and the AVR was 3.0, the loss is expected to increase the uncollared contribution rate by 2.12% of pay if amortized over 20 years. However, with an AVR of 6.0, the same return is expected to increase contributions by 4.24% of valuation payroll if amortized over 20 years.

Another measure of a system’s maturity is the Liability Volatility Ratio (LVR), which is equal to the AL divided by the total valuation payroll. This ratio provides an indication of the longer-term potential for contribution

volatility for any given level of investment volatility. In addition, this ratio provides an indication of the potential contribution volatility due to demographic experience (gains and losses) and liability re-measurements (assumption changes). For Oregon PERS, the current LVR is 7.8.

The graph below shows the historical LVR since December 31, 1985. It follows a similar pattern to the Asset Volatility Ratio, except the increase is more gradual and the year-to-year variance is significantly less.

Liability Volatility Ratio (Actuarial Accrued Liability ÷ Valuation Payroll)



Glossary

Glossary

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

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

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

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

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

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

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

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

$$\text{Benefits} + \text{Expenses} = \text{Contributions} + \text{Investment Earnings}$$

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

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

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

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

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

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

Present Value of Future Normal Cost (PVFNC). The present value (as of the valuation date) of all future annual normal costs for current members expected to be allocated to future years in accordance with the actuarial cost method in use. By definition, this is equal to the difference between the total actuarial present value of benefits less the actuarial accrued liability under the actuarial cost method.

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. 67 of the Governmental Accounting Standards Board (GASB 67). The accounting standard establishing financial reporting standards for defined benefit pension plans. The standard replaced GASB Statement 25 for plan fiscal years beginning after June 15, 2013.

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

Statement No. 74 of the Governmental Accounting Standards Board (GASB 74). The accounting standard establishing financial reporting standards for post-employment benefits other than pensions. The standard replaced GASB Statement 43 for plan fiscal years beginning after June 15, 2016.

Statement No. 75 of the Governmental Accounting Standards Board (GASB 75). The accounting standard governing a governmental employer's accounting for post-employment benefits other than pensions. The standard replaced GASB Statement 45 for employer 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 Tier 1/Tier 2 normal cost rates.

Total Actuarial Present Value of Benefits. Sometimes referred to simply as "Present Value of Benefits" (PVB) or "Total Liability", the present value of all prospective benefits projected to be paid to current plan members. This amount is equal to the sum of the actuarial accrued liability and the present value of future normal costs, and is unaffected by the choice of actuarial cost method.

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 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.