UNFUNDED ACTUARIAL LIABILITY RESOLUTION PROGRAM

Guide to Understanding Your Valuation

State and Local Government Rate Pool (SLGRP) employers

The purpose of this guide, created as part of PERS' Unfunded Actuarial Liability (UAL) Resolution Program, is to help employers identify and understand the most important information in your actuarial valuation.

OREGON PERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

Revised: April 7, 2022

Disclaimer

This guide is for employer educational purposes only and is not intended to provide legal or financial advice. If there is any conflict between this guide and federal law, Oregon law, or administrative rules, the laws and rules shall prevail.

In addition, as this guide aims to explain PERS employer rate information in as simple terms as possible, some actuarial information is simplified and may not apply to all situations or employers.

Assistance

If you have any questions or concerns about your specific scenario, email Actuarial.Services@pers.oregon.gov.

About this guide

This guide includes snapshots of actual pages from a sample employer valuation created by actuaries at Milliman. Information on the page is called out with letters (e.g., A) that correspond to explanations on the facing page. To keep pages together, the document is laid out in spreads (i.e., two pages displayed side by side). Occasionally this results in blank spaces.

Terms that are cherry-red colored include a definition. Hover over a term with your cursor to see its definition pop up, or go to the glossary at the end of this guide for a more detailed definition.

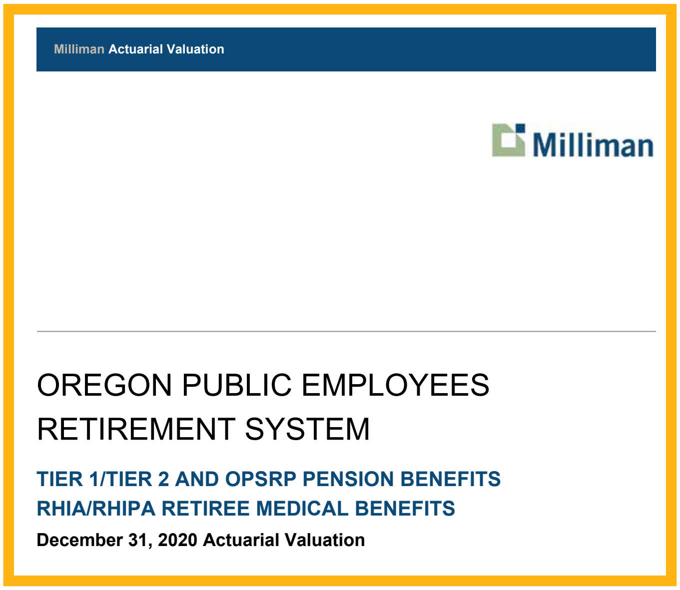
Links to pages on the PERS website are included throughout to enable you to dive deeper into certain topics.

This guide is one of a series. To see the other guides, go to the Employer Rate Relief Programs section of the PERS website.

Contents

Introduction

Every even-numbered year, PERS publishes a system-wide valuation report in addition to **actuarial valuation** reports for every PERS-participating employer. These reports are calculated and created by PERS' consulting actuary based on information gathered the previous (odd) year. You can download your actuarial valuation report from the PERS website.


Milliman Actuarial Valuation

Milliman

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

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

December 31, 2020 Actuarial Valuation

Image 1: System-wide valuation report


Milliman

ACTUARIAL VALUATION REPORT
DECEMBER 31, 2020

OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

STATE AND LOCAL GOVERNMENT RATE POOL

December 2021

Image 2: Employer valuation report

The system-wide valuation report overviews the financial health of the PERS system and presents actuarial estimates of the system-wide liabilities and expenses of PERS, including pension benefits and retiree medical benefits.

It also provides information on system-wide average employer contribution rates and employer rates by pool.

Employer valuation reports are informational supplements to the system-wide report. They provide details on employers' contribution rates and the data used to calculate the rates.

Valuation reports are grouped by pool:

1. State and Local Government Rate Pool employers.
2. School District Rate Pool employers.
3. Independent employers.

To learn more

If you have questions about any of the information in this guide or about your agency's particular situation, contact Actuarial Services.

Roles and responsibilities

The Oregon Legislature sets PERS' benefit design

The Oregon Legislature is the "plan sponsor" for PERS, the system, and has the sole authority to determine the benefit structure for public employees.

When making legislative changes to PERS, legislators look to their constituents, lobbyists, and other stakeholders to provide them with information about upcoming bills during a legislative session.

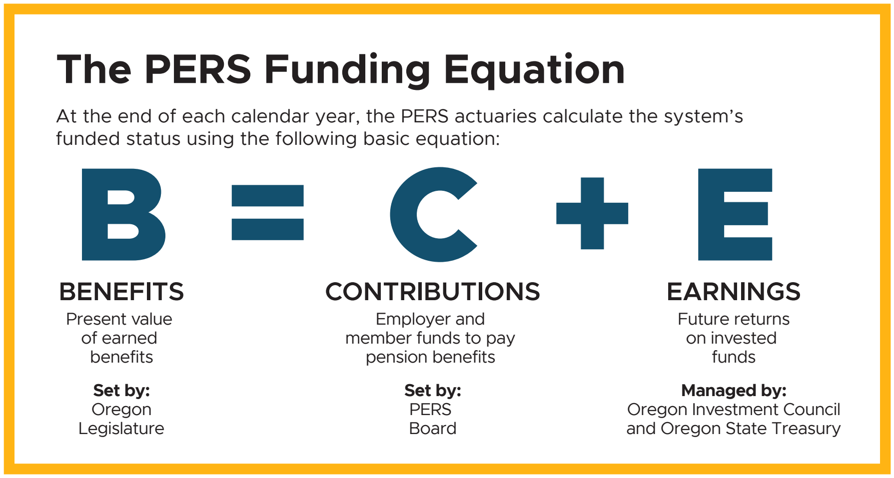


Image 3: How PERS is funded

To read about recent legislation affecting PERS, visit the PERS Employers Senate Bill 1049 webpage and the Enacted 2021 PERS Legislation webpage.

PERS administers the system

PERS, the agency, administers the retirement system (aka the plan) for employers in accordance with legislation handed down from the Oregon Legislature. In doing so, PERS also complies with state and federal laws.

PERS collects employer contributions, which are deposited into the PERS Trust, and sends retirees their pension and IAP checks. PERS provides information (through oregon.gov/pers) and web-based tools (i.e., OMS and EDX) that enable members and employers to manage their plans.

Oregon State Treasury and Oregon Investment Council invest the money

The Oregon State Treasury and Oregon Investment Council invest the money in the Oregon PERS Fund to get the greatest return without incurring excessive risk. To learn more about how the PERS Fund is invested, go to the PERS Fund/Investments webpage.

Employers fund the system

Employers pay for the retirement benefits of their present and future retirees. To understand how your contribution rate is calculated, see the *Guide to Understanding Your Rate*.

Employer Contribution Rates

State and Local Government Rate Pool (SLGRP) employers valuation

Your State and Local Government Rate Pool (SLGRP) valuation is a document containing about 25 pages; however, most of the essential information you need is on just 5 to 7 pages.

This section uses a sample SLGRP actuarial valuation that is annotated to highlight and explain the most essential pages of your valuation. This will help ensure that you are fully optimizing available data for budgeting and forecasting purposes.

Contents of Report

The executive summary provides the basic information you need including:

- Contribution rates for Tier 1/Tier 2, OPSRP general service, and OPSRP police and fire payroll, and
- A summary of principal valuation results.

The remainder of the report provides additional information including:

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

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

Image 4: Overview of report contents

Key sections in the valuation

To pull out the most useful information from your valuation report, focus on the sections called out in the valuation table of contents below.

CONTENTS

A	**Executive Summary:** This section provides all of your basic information: your employer rates, your **funded status**, and the data that was used to determine most of these rates.
B	**Weighted Average Tier 1/Tier 2 Normal Cost, Transition Liability Information, and Side Account Information:** These sections give specific details on how your employer-specific rate was calculated. These rates are based on your **combined valuation payroll**.
C	**Brief Summary sections:** These sections include a brief summary of the changes to actuarial methods and/or assumptions and any plan changes that may have affected your rate.

Image 5: Key sections

Executive Summary section

Employer Contribution Rates

This page details the individual rates that make up your total net **contribution rate**. In the valuation, there are separate pages that explain the rate calculations for the normal cost rate, **transition liability/surplus** rate, and side account rate offset. These calculations are employer-specific and based on your payroll and specific **amortization** factor.

The calculations for the normal cost rate, Tier One/Tier Two UAL rate, OPSRP UAL rate, **Member Redirect offset**, and retiree healthcare rates are available in the system-wide valuation.

The circled letters below correlate to sections of the sample page at right.

A	Most SLGRP employers pay the default Tier One/Tier Two rate. This averages the **normal cost** for General Service and Police & Fire. However, employers can also opt to pay separate rates for General Service and Police & Fire. Employers consider this option when they have minimal Police & Fire members and would benefit from the lower General Service rate.
B	All employers pay the same OPSRP normal cost and UAL rates because OPSRP is a pool.
C	Retiree Healthcare is also a pool. All employers with Tier One/Tier Two payroll pay the same RHIA normal cost. State agencies and the judiciary also pay for RHIPA. The RHIPA normal cost is added to the RHIA normal cost and represented as the Retiree Healthcare normal cost. Currently, RHIPA is fully funded and does not have a UAL.
D	RHIA is currently funded at more than 100%. That is why there is no UAL rate assigned. If RHIA did have a UAL, that would be charged to OPSRP payroll as well. UAL is charged across all payrolls, just like with the OPSRP and Tier One/Tier Two UAL rate.
E	The fine print: 1. As part of 2003 legislation, the UAL for Multnomah Fire District #10 was allocated to all Tier One/Tier Two employers. Some employers are mandated to pay slightly more than others, but the total amount for most employers is 0.14%. 2. An employer's net rate cannot be 0%. To prevent this, offsets or surpluses cannot be applied to the retiree healthcare rate. In the event that RHIA has a 0% normal cost rate, contribution rates will be adjusted to prevent a 0% contribution rate. 3. The Member Redirect offset will reduce your normal cost rate. In this employer example, the new Tier One/Tier Two normal cost rate will be 13.70%, the new OPSRP General Service normal cost rate will be 7.94%, and the OPSRP Police & Fire normal cost rate will be 12.30%.

Executive Summary

Employer Contribution Rates

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

The following table summarizes the employer contribution rates calculated as of December 31, 2020 for each type of payroll. There are separate normal cost rates for each of the payrolls based on the benefit structure supported by that payroll. The other rates apply to all payrolls regardless of the benefit structure to which they are attributed.

Advisory 2023 - 2025 Employer Rates Calculated as of December 31, 2020

	Payroll				
	Tier 1/Tier 2 A			OPSRP B	
	Default	Optional Separate Rates			
	All T1/T2 Payroll	General Service	Police & Fire	General Service	Police & Fire
Pension					
Normal cost rate	16.69%	15.54%	22.20%	9.99%	14.74%
Tier 1/Tier 2 UAL rate[1]	13.84%	13.84%	13.84%	13.84%	13.84%
OPSRP UAL rate	2.09%	2.09%	2.09%	2.09%	2.09%
Pre-SLGRP pooled liability rate	1.42%	1.42%	1.42%	1.42%	1.42%
Transition liability/(surplus) rate[2]	0.00%	0.00%	0.00%	0.00%	0.00%
Side account rate relief [2]	(6.15%)	(6.15%)	(6.15%)	(6.15%)	(6.15%)
Member redirect offset [3]	(2.40%)	(2.40%)	(2.40%)	(0.65%)	(0.65%)
Net employer pension contribution rate	**25.49%**	**24.34%**	**31.00%**	**20.54%**	**25.29%**
Retiree Healthcare C					
Normal cost rate	0.14%	0.14%	0.14%	0.00%	0.00%
UAL rate D	(0.14%)	(0.14%)	(0.14%)	0.00%	0.00%
Net retiree healthcare rate	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**
Total net employer contribution rate	**25.49%**	**24.34%**	**31.00%**	**20.54%**	**25.29%**

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

1 *Includes Multnomah Fire District #10 rate and any impact of rate collar developed on page 42 of the system-wide actuarial valuation report.*

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

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

Image 6: Advisory employer contribution rates

Employer Contribution Rates — Range of Potential Rates

Important for budgeting and forecasting.

The Range of Potential Tier One/Tier Two Employer Pension Contribution Rates section indicates the pool's minimum and maximum rates for 2023-25 under various funding scenarios. In December of each year, the PERS actuary provides a financial modeling presentation that projects where they think the system will be, including funded status.

Once the projected funded status for 2023 is known, you can enter these rates into your rate-projection tool or the PERS employer rate-projection tool to anticipate the effect they will have on future budgets.

A	As a member of the pool, you don't have an individual funded status. Your assets and liabilities are combined with all other SLGRP members, so whatever the status of the pool is, it will be the same for you.

Executive Summary

Employer Contribution Rates (continued)

Range of Potential Tier 1/Tier 2 UAL Contribution Rates for the July 2023 to June 2025 Biennium

The rate collar limits changes in the UAL Rate for the rate pool, but does not limit changes in rates for individual employers related to pre-SLGRP liabilities or side accounts and does not limit the change in the normal cost rate. The table below shows the possible minimum and maximum UAL Rates for the SLGRP first effective as of July 1, 2023. The collar width, which in general is the amount the UAL Rate could increase or decrease from the current UAL Rate being paid, is 3% of pay. However, the UAL Rate is only allowed to decrease by the full collar width if the funded status (excluding side accounts) of the SLGRP is greater than or equal to 90%. The UAL Rate is not allowed to decrease at all if funded status is below 87%, and the allowable decrease is phased in for funded status levels from 87% to 90%.

For comparison, the Pool's funded status as of December 31, 2020 is 69%. A

2021-2023 Biennium	2023-2025 Biennium	
	15.46%	**<<<No higher than this**
12.46%	12.46%	**<<<No lower than this if December 31, 2021 funded status is 87% or lower**
	9.46%	**<<<No lower than this if December 31, 2021 funded status is 90% or higher**

For individual employers in the SLGRP, these rates are adjusted to reflect the individual employer's pre-SLGRP pooled liability rate, transition liability rate, and side account rate offset.

Image 7: Range of UAL rates

Principal Valuation Results

Here you can see the exact information the PERS actuary used to calculate your rates as well as your individual results.

A	As a member of a pool, your Tier One/Tier Two **UAL** is allocated to you from the pool's **liabilities** based on your payroll. It does not reflect your actual Tier One/Tier Two UAL.
B	**This rate may not apply to you.** Prior to the formation of the SLGRP, there were two pools: the Local Government Rate Pool and the State Agencies and Community College Pool. The UALs of those two pools are tracked separately from the SLGRP's UAL. Employers who were members of the Local Government Rate Pool have a surplus, which means they have less UAL as a percentage of payroll than the pool. Those who were members of the State Agencies and Community Colleges pool have a liability, which means they have a UAL as a percent of payroll that was greater than the pool's.
C	**This rate may not apply to you.** When an employer joins the SLGRP, their net pension UAL as a percentage of payroll (also on this page) is compared to that of the SLGRP's. If it is higher than the pool's UAL, the employer is assigned a transition liability. If it is lower than the pool's UAL, the employer is assigned a transition surplus. This is added to the individual employer's rate and UAL. This rate and its calculation are explained in greater detail on the Transition Liability/Surplus page in this guide.
D	Just as with the SLGRP, you are allocated a percentage of the OPSRP UAL based on your **combined valuation payroll**.
E	If you have a **side account**, that amount will show here. The amount is an **asset**. It is deducted from your liabilities to determine your net pension UAL.
F	This amount is the result of adding all of the elements preceding this line together (subtracting the side account amount, if you have one). You may have positive or negative numbers. The net result is your **actuarial accrued liability**, which reflects your pooled liabilities as well as your individual liabilities and assets. The Tier One/Tier Two UAL and OPSRP UAL already account for employer contributions at the pooled level.
G	Combined valuation payroll is not the same as your **subject salary**, but it is based on your reported salary through the end of the calendar year. Combined valuation payroll is the projected payroll for the year following the valuation date (in this case, 2020). It is calculated using actuarial assumptions of wage and salary growth as well as demographic assumptions. Actual **experience** will be adjusted in the subsequent valuations. **This is the single greatest factor employers can control.** While the actual amount is a projection, if you have a significant change in your payroll, it will affect the calculation for many of your individually calculated rates such as normal cost, side account rate relief, transition liability/surplus, and pre-SLGRP liability/surplus. Your combined valuation payroll also determines how much of each pool's UAL is allocated to you.
H	As with Tier One/Tier Two UAL and OPSRP, this is the allocated portion of the RHIA pool's UAL based on your combined valuation payroll. It is negative because the pool is currently fully funded. It is not factored into your net pension UAL.
I	Only state agencies and the Judiciary pay RHIPA and have an associated RHIPA UAL. All other employers show a zero.

Executive Summary

Principal Valuation Results

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

	Actuarial Valuation as of	
	December 31, 2020	**December 31, 2019**
Allocated pooled SLGRP T1/T2 UAL A	$7,486,419,157	$6,499,864,594
Allocated pre-SLGRP pooled liability/(surplus) B	321,979,509	360,722,766
Transition liability/(surplus) C	0	0
Allocated pooled OPSRP UAL D	754,129,878	567,814,829
Side account E	1,395,821,115	1,573,201,860
Net unfunded pension actuarial accrued liability F	7,166,707,429	5,855,200,329
Combined valuation payroll G	3,684,120,450	3,453,955,908
Net pension UAL as a percentage of payroll	195%	170%
Pre-SLGRP pooled rate	1.42%	1.52%
Transition rate	0.00%	0.00%
Side account rate relief	(6.15%)	(6.63%)
Allocated pooled RHIA UAL H	($84,618,511)	($71,946,646)
Allocated pooled RHIPA UAL I	($15,491,484)	$7,376,663

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

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

Image 8: Summary of principal valuation results

Weighted Average Tier One/Tier Two Normal Cost section

The SLGRP normal-cost rates are established at the pool level for each tier and classification. Each tier's normal-cost rate is calculated by taking the pool's normal cost for that tier and classification and dividing it by that tier and classification's payroll.

For example, Tier One General Service normal cost (highlighted under the Employer Tier One/Tier Two Valuation Payroll column) is divided by Tier One General Service payroll (highlighted under the Normal Cost column). Tier Two General Service normal cost is divided by Tier Two General Service payroll. For those employers with Tier One and Tier Two payroll, these rates are multiplied by the relevant payroll to determine the employer's normal cost.

Once the normal cost is determined for all segments, it is added up and divided by the employer's Tier One/Tier Two payroll, resulting in their Tier One/Tier Two normal cost.

Weighted Average Tier 1/Tier 2 Normal Cost

Pension

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

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

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

	December 31, 2020			December 31, 2019		
	SLGRP Normal Cost Rate	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost	SLGRP Normal Cost Rate	Employer Tier 1/Tier 2 Valuation Payroll	Normal Cost
Tier 1 General Service	18.14%	$345,164,268	$62,612,798	16.64%	$371,831,026	$61,872,683
Tier 2 General Service	13.87%	535,581,658	74,285,176	12.67%	535,701,188	67,873,341
Total General Service		**880,745,926**	**136,897,974**		**907,532,214**	**129,746,024**
Tier 1 Police & Fire	23.86%	49,351,821	11,775,344	21.76%	54,673,239	11,896,897
Tier 2 Police & Fire	21.58%	133,231,050	28,751,261	19.69%	132,555,682	26,100,214
Total Police & Fire		**182,582,871**	**40,526,605**		**187,228,921**	**37,997,111**
Total		**$1,063,328,797**	**$177,424,579**		**$1,094,761,135**	**$167,743,135**
Total normal cost rate						
General Service			**15.54%**			**14.30%**
Police & Fire			**22.20%**			**20.29%**
Aggregate (Default)			**16.69%**			**15.32%**

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

Image 9: Tier One/Tier Two normal cost rate

Transition Liability Information section

This page provides details on your **transition liability/surplus**. It is essential to review if you have a transition liability or surplus.

Important for budgeting and forecasting.

If you have a transition liability, you have the option to pay off your transition liability. To determine if that makes sense for you, read this page in your valuation.

Read the callouts below for what you should consider.

A	This employer has a transition surplus; in 2020, this employer had a transition surplus rate of –2.78%. $125,265 was used from their transition surplus total to provide this offset.
B	Transition surplus and liability payments are invested in the OPERF and are subject to interest. In this case, the employer received $49,381 in interest, which is added back to the transition surplus offsetting some of the annual reduction.
C	Whether an employer has a transition surplus or liability, an employer should know the planned amortization end date. For those with a surplus, it will mean a potential rate increase; for those with a liability, it may mean a rate decrease.
D	Remember that combined valuation payroll affects other calculations. Here, the payroll increased, reducing the transition surplus rate. If the payroll had remained the same or close to the 2018 combined valuation payroll, the transition surplus rate would have increased to 2.76%.

Transition Liability Information

Outstanding Balance of Transition Liability/(Surplus)

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

	Transition Liability	
1. Transition liability/(surplus) as of December 31, 2019	($811,110)	
2. January 1, 2020 through June 30, 2020		
A. Transition liability/(surplus) rate[1]	(2.78%)	A
B. Actual employer payroll	2,239,758	
C. Payment to transition liability/(surplus)	(62,265)	
3. July 1, 2020 through December 31, 2020		
A. Transition liability/(surplus) rate[1]	(2.78%)	
B. Actual employer payroll	2,266,162	
C. Payment to transition liability/(surplus)	(63,000)	
4. Supplemental payment to transition liability	0	
5. Interest	(49,381)	B
6. Adjustment due to merged, spun-off, or allocated employers	0	
7. Transition liability/(surplus) as of December 31, 2020		
(1. - 2C. - 3C. - 4. + 5. + 6.)	**($735,226)**	

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

Development of Transition Liability or Surplus Rate

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

	December 31, 2020		**December 31, 2019**
1. Total transition liability/(surplus)	(735,226)		(811,110)
2. Combined valuation payroll	4,934,931	D	4,314,081
3. Regular amortization factor	6.158		6.875
4. **Total transition liability/(surplus) rate**	**(2.42%)**		**(2.73%)**

Image 10: Transition liability/surplus

Side Account Information section

Valuations are the only time you are given an accurate update on your side accounts.

Reconciliation of Side Accounts

Side Account Information

Reconciliation of Side Accounts

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

All information in this table has been provided by PERS.

	New	Continuing	Total
1. Side account as of December 31, 2019	**N/A**	**$21,018,856**	**$21,018,856**
2. Deposits during 2020			
3. Administrative expenses		(500)	(500)
4. Amount transferred to employer reserves during 2020		(3,228,245) A	(3,228,245)
5. Side account earnings during 2020		1,275,496	1,275,496
6. Side account as of December 31, 2020 ***(1. + 2. + 3. + 4. + 5.)***		**$19,065,607** B	**$19,065,607**

A — This is the amount that was used to offset this employer's rates in the past year. On your employer statement, this would be the sum of all the credits that were applied to your assets over the year.

B — This is the beginning balance used to determine your side account rate for the upcoming biennium.

Image 11: Side account reconciliation

Development of Side Account Rate

Using the reconciliation information from the prior page along with your combined valuation payroll, the actuary displays the information they used to develop your side account rate offset here. If you have more than one side account, you will see the balance for each side account. The amortization factor and the individually calculated rate for each side account are also provided.

Development of Side Account Rate

The rate relief attributable to an employer's side account is determined by amortizing the side account balance on the valuation date over a fixed period and expressing the result as a percentage of combined valuation payroll. For side accounts established prior to December 31, 2009, the fixed period ends December 31, 2027. For side accounts established at a later date, the default fixed period ends 18 years after the first rate-setting valuation following its creation, though employers can select a shorter period under certain specified circumstances. For employers with more than one side account, the total side account rate is determined by calculating the rate on each side account separately and adding the rates together.

	December 31, 2020			December 31, 2019		
	Combined valuation payroll		$83,531,675 A	Combined valuation payroll		$77,241,468
	Side account balance	**Amortization factor**	**Side account rate**	**Side account balance**	**Amortization factor**	**Side account rate**
1.	$4,282,547	6.158	(0.83%) B	$4,859,224	6.875	(0.92%)
2.	17,641,857	11.644	(1.81%)	0		0.00%
3.	0		0.00%	0		0.00%
4.	0		0.00%	0		0.00%
5.	0		0.00%	0		0.00%
Total	**$21,924,404**		**(2.64%)**	**$4,859,224**		**(0.92%)**

A	The actuary shows data that they used for the current valuation and the prior valuation. You should review this data to determine why the rate may be higher or lower than you assumed. In this scenario, the employer added an additional side account. This new side account provided an additional decrease in the employer's rate.
B	Side account rate offset = side account balance ÷ combined valuation payroll ÷ amortization factor. If you have multiple side accounts, your side account rates are added together to determine your total rate offset.

Image 12: Side account rate

Brief Summary section

Actuarial methods and economic assumptions

This page explains the PERS Board-approved methods and assumptions the actuary used to develop **employer contribution rates**. The Board reviews the methods and assumptions every even-numbered year. Any changes are incorporated and modeled in the **actuarial valuation** before being implemented in the rate-setting valuation.

A	The **amortization** periods are different for Tier One/Tier Two, OPSRP, and Retiree Healthcare UALs. That makes a big difference when incorporating legislative changes or changes that fall outside of actuarial assumptions. For example, if there is a significant salary increase across all payrolls, OPSRP may see more of that increase in their rates because they are only amortized over 16 years. However, they will also resolve that increase over a shorter period of time and have less legacy debt.
B	The biggest factor affecting the economic assumptions is the net investment return and interest crediting.

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2020 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

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

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

Economic Assumptions B

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

Investment return	6.90% compounded annually on system assets.
Interest crediting	6.90% compounded annually on members' regular account balances. 6.90% compounded annually on members' variable account balances.
Inflation	2.40% per year.
Payroll Growth	3.40% per year.
Healthcare cost trend	Ranging from 5.9% in 2021 to 3.9% in 2074.
Administrative Expenses	$59 million per year is added to the total system normal cost and allocated between Tier 1/Tier 2 and OPSRP based on valuation payroll.

Image 13: Actuarial methods

Changes

This section reviews any changes made since the last valuation.

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2019 actuarial valuation are described briefly below and are described in additional detail in the system-wide actuarial valuation report.

Changes in Actuarial Methods and Allocation Procedures

- The rate collar methodology was revised to only restrict changes in the UAL Rate component and to narrow the width of allowable changes.
- The UAL Rate amortization methodologies for the RHIA and RHIPA programs were changed to allow a limited rate offset when a program is in an actuarial surplus position (over 100% funded).
- The assumed system-average level of member redirect contributions to Tier 1/Tier 2 and OPSRP was updated to reflect the projected effects of House Bill 2906.

Changes in Economic Assumptions

- The long-term inflation assumption was lowered from 2.50% to 2.40% and the system payroll growth assumption was lowered from 3.50% to 3.40%.
- The assumed average annual long-term investment return was lowered from 7.20% to 6.90%.
- Interest crediting on regular and variable member accounts was also lowered to 6.90%.
- Assumed administrative expenses were updated and changed to a combined assumption for both Tier 1/Tier 2 and OPSRP.

Changes in Demographic Assumptions

- The base mortality assumption was changed for School District males and an updated future mortality improvement projection scale was adopted for all groups.
- Termination, disability and retirement rates were updated for some groups to more closely match observed and anticipated future experience.
- Assumptions for merit increases, unused sick leave, and vacation pay were updated.
- The assumed healthcare cost trend rates for the RHIPA program as well as the participation assumptions for both RHIA and RHIPA were updated.

A complete summary of all assumptions used as part of the December 31, 2020 actuarial valuation is contained in the system-wide actuarial valuation report.

Image 14: Changes

Talking points

Causes of rate change

- Remember that the biggest factor an employer controls is the combined valuation payroll. If there is a significant change in your rate, compare the combined valuation payroll in the last rate-setting valuation to the one in the most recent rate-setting valuation. The actuary accounts for 3.4% wage inflation per year.
- Determine if there was or is now a rate collar applied to the rate; remember that rate collars are applied to the Tier One/Tier Two UAL rate.

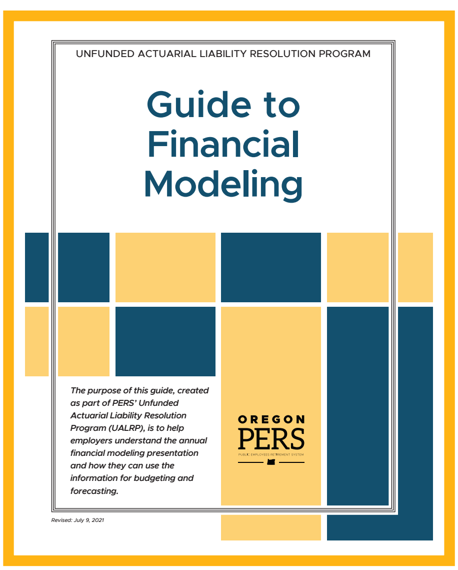
For additional explanations of changes in the system rates:

- System-Wide Valuation Report: Click on the latest year and then the document called "System-Wide [year] Valuation Report."
- Actuary presentations to the PERS Board: Click on a meeting date to open the packet. The October meeting includes the actuary's presentation of the system-wide actuarial valuation. The December meeting includes an update on the valuation plus the annual financial modeling presentation.
- Employer Rate Summary: This webpage documents the changes that occurred since the last rate-setting valuation, including legislative changes.

Financial Modeling presentation

For more explanations about changes in system rates, refer to the *Guide to Financial Modeling*, which is posted on the UAL Resolution Program webpage.

The guide provides explanations of the latest financial modeling information, as presented by the PERS actuary to the PERS Board at the end of each year. The guide explains how current assumptions and projections will affect the unfunded actuarial liability (UAL), base and net rates, and funded status over a long period of time.


UNFUNDED ACTUARIAL LIABILITY RESOLUTION PROGRAM

Guide to Financial Modeling

The purpose of this guide, created as part of PERS' Unfunded Actuarial Liability Resolution Program (UALRP), is to help employers understand the annual financial modeling presentation and how they can use the information for budgeting and forecasting.

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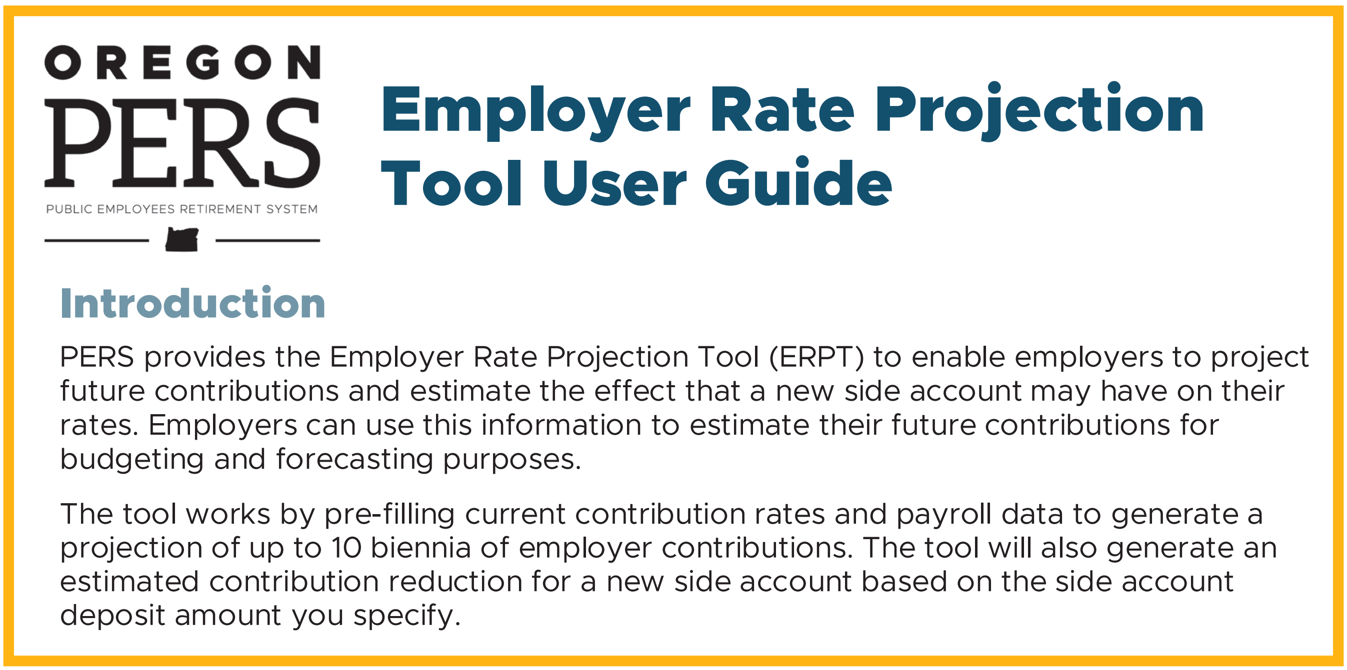
Revised: July 9, 2021

Image 15: Guide to Financial Modeling

Using the Employer Rate Projection Tool (ERPT)

Using the information shared in this guide, consider using the PERS Employer Rate Projection Tool to forecast your future contributions.

We encourage you to use the User Guide and the Employer Rate Projection Tool to enhance your current budget and forecasting tools and better manage your contribution rates over time. Although we cannot provide any budget advice nor guarantee any actuarial outcome, we are pleased to provide greater detail to empower you and your boards to make more informed decisions.



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Employer Rate Projection Tool User Guide

Introduction

PERS provides the Employer Rate Projection Tool (ERPT) to enable employers to project future contributions and estimate the effect that a new side account may have on their rates. Employers can use this information to estimate their future contributions for budgeting and forecasting purposes.

The tool works by pre-filling current contribution rates and payroll data to generate a projection of up to 10 biennia of employer contributions. The tool will also generate an estimated contribution reduction for a new side account based on the side account deposit amount you specify.

Image 16: ERPT User Guide

PERS resources

- 2021-23 employer contribution rates
- Actuarial & Financial Information webpage
- Employer actuarial valuations
- Employer Side Accounts webpage
- *Guide to Understanding Your Rate*
- Senate Bill 1049 (2019) – Information and Implementation for PERS Employers webpage
- System-Wide 2020 Valuation Report

Glossary of actuarial terms

Actuarial accrued liability

Accrued liabilities are the present value of either promised pension benefits or pension obligations. Every year, the PERS plan's actuary calculates the total value of liabilities that have accrued and uses this figure to determine the plan's unfunded liability.

Actuarial valuation

An actuarial valuation is an appraisal of a pension fund's assets and liabilities. A consulting actuary calculates the valuation using assumptions about future economic and demographic conditions to determine the funded status of a pension plan.

Actuary

An actuary uses math, statistics, and financial theory to study uncertain future events, especially those of concern to insurance and pension programs.

Advisory rate

In the fall of odd-numbered years, the PERS actuary produces advisory employer contribution rates for all employers for the upcoming biennium. These rates represent actual experience but will not affect your rate.

Amortize/amortization

Amortization is an accounting technique used to spread costs over time that could compromise current cash flow, like a mortgage on a house.

Assets

Your assets are the money going into your pension, such as your employer contributions and earnings on investments.

Assumed rate

The assumed rate is the rate of investment return (including inflation) that the PERS Fund's regular account is expected to earn over the long term.

The PERS Board decides the assumed rate based on:

- The long-term projection of investment returns based on the asset allocations of the Oregon Investment Council and the related capital market expectations.
- PERS' actuary's independent analysis of the projected returns from that asset allocation over a long-term investment horizon.

The current assumed rate is 6.9%, which has been in effect since January 1, 2022. The assumed rate is reviewed, adopted, and incorporated into Oregon Administrative Rule by the PERS Board every two years as part of the system's **Experience Study**.

Combined valuation payroll

Projected payroll as calculated by the PERS consulting actuary for the calendar year following the valuation date for Tier One, Tier Two, and OPSRP active members. This payroll is used to calculate UAL rates and is based on the actual payroll reported by the employer.

Contribution rate

An employer's contribution rate is the percentage of payroll you pay to PERS to fund the pension benefits of your employees. It does not include the 6% employee (member) Individual Account Program (IAP) contribution, even if you are paying it on your employees' behalf.

Experience

Experience refers to the actual financial performance of a plan over a year. To project the cost and liabilities of the pension plan, assumptions are made about all future events that could affect the amount and timing of the benefits to be paid and the assets to be accumulated. Each year, actual experience is compared against the projected experience, and to the extent there are differences, the future contribution requirement is adjusted.

Funded status

The actuarial value of assets expressed as a percentage of the accrued liability. In other words, how close an employer, pool, or the PERS system is to being able to pay all of the benefits it owes to past and current members. As of December 31, 2020, the system-wide PERS' funded status was 70.6% without side accounts and 75.9% including side accounts.

Each pool also has its own individual funded status:

	SLGRP	School Districts	OPSRP	Retiree Healthcare
Without side accounts	68.7%	72.6%	75.4%	167.7%
With side accounts	74.2%	80.5%	75.4%	N/A

Geometric average return

This represents the rate of return on investment per year, averaged over a specified time period. For valuation purposes, this is the rate of return averaged over the 20-year amortization period.

Liability

For PERS' actuarial purposes, liabilities represent pension obligations, such as normal cost, benefit payments, demographic experience changes, and/or plan changes.

The employer contribution rates that the PERS actuary creates are all future based. The actuary takes data for a year that passed (e.g., 2019) and projects the correct rate to cover benefit needs

18 months in the future (e.g., 2021). It does this by establishing actuarial assumptions, one of which is the assumed rate of 6.9% for salary wage growth. There will be variance year to year, but over a 20-year period the rates average out.

Member Redirect offset

This offset in employer rates is a result of the Member (IAP) Redirect program established by Senate Bill 1049. For all PERS members earning equal to or more than the salary requirement, Member Redirect takes a portion of their 6% IAP contribution and redirects it to a new Employee Pension Stability Account (EPSA). The funds in each member's EPSA will be used to help pay for their future pension benefits, which helps reduce employer rates.

Normal cost

The normal cost is the value of benefits for an employer's current members for the next year of service. If all current actuarial assumptions were met, the normal cost would be the only rate an employer would pay.

Your normal cost, divided by your applicable payroll, is your normal cost rate.

Rate collar

Rate collar is a method of stabilizing employer contribution rates by preventing sudden rate spikes and drops.

The current policy limits only the UAL rate. The collar width varies by pool.

For details, read "Rate-Collar Methodology Updated" in the **August 2021 *Employer News***.

Subject salary

Subject salary is an employee's pay and value-added benefits that are included when calculating retirement benefits and that are subject to PERS contributions.

Transition liability/surplus

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 One/Tier Two UAL for the SLGRP.

UAL

Unfunded actuarial liability (UAL) is the difference between accrued assets (employer contributions and investment earnings) and accrued liabilities (the cost of pension benefits earned). If liabilities become larger than assets, that creates debt (i.e., a UAL) that must be paid.

UAL payments are divided equitably among pool members as a percentage added to each pool member's normal cost rate.

Appendix: Legislative changes directed by Senate Bill 1049

Senate Bill (SB) 1049, signed into law in 2019, made several adjustments to PERS to slow the increase in employer contribution rates. Employers will feel the initial impact of SB 1049 on employer rates for the 2021-23 biennium.

SB 1049 has four areas designed to reduce employer rates over time.

UAL re-amortization

SB 1049 required the PERS Board to implement a one-time re-amortization of the Tier One/Tier Two UAL over a closed 22-year period. Stretching the amortization period from 20 years to 22 years effectively lowers the increase in contribution rates for the 2021-23 biennium. This change had the largest reduction on employer contribution rates, though it likewise extends the length of time it will take to reduce the system-wide UAL.

Amortization options

The UALRP also allows employers who make lump-sum payments of $10 million or more into side accounts two options to further reduce their rate:

1. A reduced amortization period of 6, 10, or 16 years instead of the standard 20 years.
2. A deferment of your rate-offset date beyond the standard rolling 12-month period.

Employer rate relief

The **Employer Incentive Fund** (EIF) and **School Districts Unfunded Liability Fund** (SDULF) programs took advantage of the existing side account program by offering matching funds to employers who established a new side account (EIF) or sought to establish a pool-wide side account (SDULF). A total of 89 employers received nearly $65 million in matching funds before the remaining funding was withdrawn to help rebalance the Oregon state budget in August 2020, temporarily stopping the programs.

Learn more about EIF.

UAL Resolution Program (UALRP)

The UALRP provides educational tools and resources, such as this guide, to support employers in creating funding plans to manage their funded status and contribution rates.

Learn more.

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