

**Unfunded Actuarial
Liability Resolution
Program**

Guide to Understanding **Your Valuation**

State and Local Government Rate Pool

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

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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.

About this guide

This guide is designed to explain PERS employer rate information in as simple terms as possible; therefore, some actuarial information is generalized and may not apply to all situations or employers.

Terms that are **cherry-red** colored are defined in the “Glossary” section at the end of this guide. Click a term to go to the definition.

Click “return to table of contents” in the footer of any page to return to the beginning of the guide.

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

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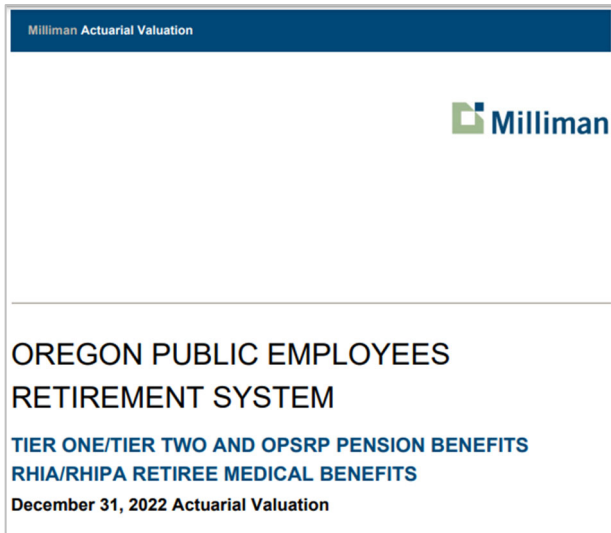
This guide is one of a series. To see the other guides, go to the [UALRP Educational Guides](#) section of the PERS website.

Assistance

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

Introduction

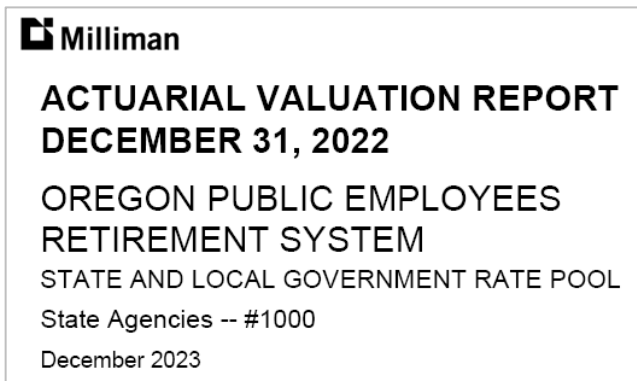
Every even-numbered year, PERS publishes a system-wide valuation report in addition to **actuarial valuation** reports for every PERS-participating employer. These reports are calculated and created by PERS' consulting **actuary**, based on information gathered the previous (odd) year. You can download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



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**.

Figure 1: System-wide valuation report



Employer valuation reports are informational supplements to the system-wide report. They provide details on employer 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.

Figure 2: Employer valuation report

To learn more

If you have questions about any of the information in this guide or about your agency's particular situation, email PERS Actuarial Activities Section at Actuarial.Services@pers.oregon.gov.

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.

To read about recent legislation affecting PERS, visit the [Legislation Impacting PERS webpage](#).

PERS administers the system

PERS, the agency, administers the retirement system (aka, the plan) for employers and plan members. In doing so, PERS follows Oregon statutes, state laws, and federal laws.

PERS collects employer contributions, which are deposited into the PERS Fund, and sends retirees their pension and IAP checks. PERS provides legislative and plan information to plan members and employers. PERS also provides 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 future retirees. To understand how your contribution rates are calculated, read the [Guide to Understanding Your Rate](#).

Find your current rates on the [Employer Contribution Rates webpage](#).

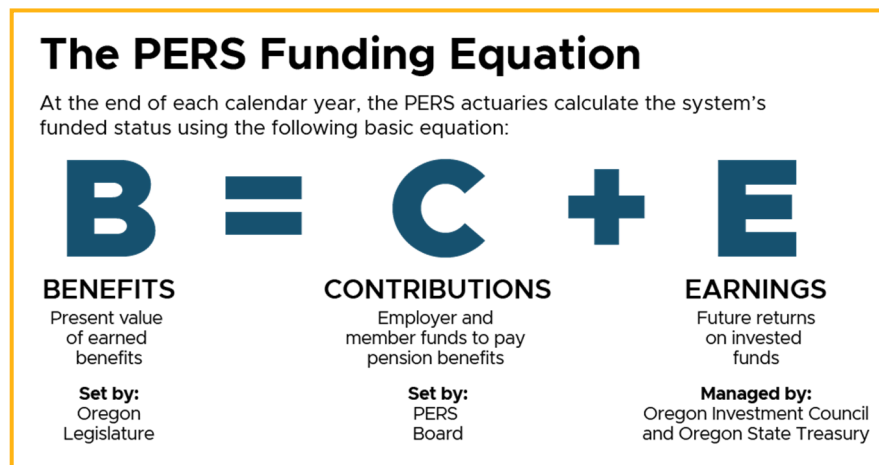


Figure 3: How PERS is funded

State and Local Government Rate Pool (SLGRP) valuation

Your 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.

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.

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Figure 4: Key sections

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 One/Tier Two Normal Cost, Transition Liability Information, and Side Account Information: These pages give details on how your employer-specific rates were 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.

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**. These calculations are employer-specific and based on your payroll and specific **amortization** factor.

The calculations for the Tier One/Tier Two **UAL rate**, Oregon Public Service Retirement Plan (OPSRP) UAL rate, **Member Redirect offset**, and Retiree Healthcare UAL rates are available in the [system-wide valuation](#).

Executive Summary

Employer Contribution Rates (continued)

Advisory 2025 - 2027 Employer Contribution Rates Calculated as of December 31, 2022

	Payroll				
	Tier One/Tier Two A			OPSRP B	
	Default All Tier One/Tier Two Payroll	Optional Separate Rates General Service	Police & Fire	General Service	Police & Fire
Pension					
Normal cost rate	17.56%	15.65%	21.98%	10.55%	15.14%
Tier One/Tier Two UAL rate ¹	12.54%	12.54%	12.54%	12.54%	12.54%
Multnomah Fire District #10 UAL rate	0.08%	0.08%	0.08%	0.08%	0.08%
OPSRP UAL rate	2.62%	2.62%	2.62%	2.62%	2.62%
Pre-SLGRP pooled liability rate ²	(0.88%)	(0.88%)	(0.88%)	(0.88%)	(0.88%)
Transition liability/(surplus) rate ³	0.00%	0.00%	0.00%	0.00%	0.00%
Side account rate relief ³	(4.97%)	(4.97%)	(4.97%)	(4.97%)	(4.97%)
Member redirect offset ⁴	(2.40%)	(2.40%)	(2.40%)	(0.65%)	(0.65%)
Net employer pension contribution rate	24.55%	22.64%	28.97%	19.29%	23.88%
Retiree Healthcare C					
Normal cost rate	0.04%	0.04%	0.04%	0.00%	0.00%
UAL rate D	(0.04%)	(0.04%)	(0.04%)	0.00%	0.00%
Net retiree healthcare rate	0.00%	0.00%	0.00%	0.00%	0.00%
Total net employer contribution rate	24.55%	22.64%	28.97%	19.29%	23.88%

¹ Includes any impact of rate collar developed in the system-wide actuarial valuation report.

² Pre-SLGRP pooled liability rate developed in the system-wide actuarial valuation report. Effective 12/31/2022, reflects amortization to end of 2027-2029 biennium and includes adjustment for contribution lag.

³ 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**

⁴ Redirected member contributions under Senate Bill 1049 (2.50% of payroll for Tier One/Tier Two 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.

Figure 5: Advisory rates

UNDERSTANDING YOUR VALUATION: SLGRP

A	Most SLGRP employers pay the default Tier One/Tier Two rate. This averages the normal cost for General Service and Police and Fire. However, employers can also opt to pay separate rates for General Service and Police and Fire. Employers consider this option when they have minimal Police and 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 an employer pool .
C	Retiree Healthcare is also a pool. All employers with Tier One/Tier Two payroll pay the same Retirement Health Insurance Account (RHIA) normal cost. State agencies and the judiciary also pay for Retiree Health Insurance Premium Account (RHIPA) . The RHIPA normal cost is added to the RHIA normal cost and represented as the Retiree Healthcare normal cost. RHIPA does have a UAL rate, so these two groups alone are charged a Retiree Healthcare UAL rate.
D	RHIA is currently funded at more than 100%. That is why there is no unfunded actuarial liability (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: <ul style="list-style-type: none">▪ 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 0.15%.▪ 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.▪ 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 15.16%, the new OPSRP General Service normal cost rate will be 9.90%, and the OPSRP Police and Fire normal cost rate will be 14.49%.

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.

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

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

For reference, the Pool's funded status excluding side accounts as of December 31, 2022 is 71%. A

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

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

Figure 6: Range of potential UAL rates

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. Your funded status is the same as the status of the pool.

Principal Valuation Results

This section only applies if you have a side account. If you do not have a side account, use the valuation report for employer #3000.

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.

State Agencies

	Actuarial Valuation as of	
	December 31, 2022	December 31, 2021
Allocated pooled SLGRP Tier One/Tier Two UAL A	\$7,456,287,885	\$5,694,611,320
Allocated pre-SLGRP pooled liability/(surplus) B	231,805,796	278,825,524
Transition liability/(surplus) C	0	0
Allocated pooled OPSRP UAL D	1,070,245,755	480,269,080
Side account E	1,081,625,830	1,381,956,605
Net unfunded pension actuarial accrued liability F	7,676,713,606	5,071,749,319
Combined valuation payroll G	4,246,910,400	3,908,464,330
Net pension UAL as a percentage of payroll	181%	130%
Pre-SLGRP pooled rate	0.82%	1.33%
Transition rate	0.00%	0.00%
Side account rate relief	(5.15%)	(6.59%)
Allocated pooled RHIA UAL H	(\$114,917,702)	(\$121,415,634)
Allocated pooled RHIPA UAL I	(\$44,258,567)	(\$36,678,096)

In the above exhibit, UAL amounts for the various pools (SLGRP Tier One/Tier Two 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.

Figure 7. Summary of principal valuation results

A

As a member of an **employer 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.

Continued

UNDERSTANDING YOUR VALUATION: SLGRP

B	<p>This rate may not apply to you. Prior to the formation of the SLGRP, there were two employer 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.</p>
C	<p>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.</p>
D	<p>Just as with the SLGRP, you are allocated a percentage of the OPSRP UAL based on your combined valuation payroll.</p>
E	<p>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.</p>
F	<p>This amount is the result of adding all of the elements preceding this line together (subtracting the amount of the side account 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.</p>
G	<p>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, 2022). 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.</p> <p>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.</p>
H	<p>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.</p>
I	<p>Only state agencies and judiciary pay RHIPA and have an associated RHIPA UAL. All other employers show a zero.</p>

Weighted Average Tier One/Tier Two Normal Cost

The SLGRP normal-cost rates are established at the **employer 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.

Development of Total Weighted Average Tier One/Tier Two Normal Cost Rate

	December 31, 2022			December 31, 2021		
	SLGRP Normal Cost Rate	Employer Tier One/Tier Two Valuation	Normal Cost	SLGRP Normal Cost Rate	Employer Tier One/Tier Two Valuation	Normal Cost
Tier One General Service	18.26%	\$276,058,578	\$50,408,296	17.70%	\$311,534,735	\$55,141,648
Tier Two General Service	14.16%	535,111,126	75,771,735	13.66%	538,543,635	73,565,061
Total General Service		811,169,704	126,180,031		850,078,370	128,706,709
Tier One Police & Fire	23.64%	34,456,108	8,145,424	23.12%	41,916,611	9,691,120
Tier Two Police & Fire	21.98%	132,013,936	29,016,663	21.37%	131,699,072	28,144,092
Total Police & Fire		166,470,044	37,162,087		173,615,683	37,835,212
Total		\$977,639,748	\$163,342,118		\$1,023,694,053	\$166,541,921
Total normal cost rate						
General Service			15.56%			15.14%
Police & Fire			22.32%			21.79%
Aggregate (Default)			16.71%			16.27%

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

Figure 8. Tier One/Tier Two normal cost rate

Transition Liability Information

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

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 correlating to figure 9 to see what you should consider.

Transition Liability Information

Outstanding Balance of Transition Liability/(Surplus)

Upon joining the SLGRP effective January 1, 2000, a transition liability or surplus was calculated to ensure that the 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, 2021	\$491,423
2. January 1, 2022 through June 30, 2022	
A. Transition liability/(surplus) rate ¹	19.42%
B. Actual employer payroll	325,403
C. Payment to transition liability/(surplus)	63,193 A
3. July 1, 2022 through December 31, 2022	
A. Transition liability/(surplus) rate ¹	19.42%
B. Actual employer payroll	362,969
C. Payment to transition liability/(surplus)	70,489 A
4. Supplemental payment to transition liability	0
5. Interest	24,684 B
6. Other adjustments, i.e. merger, spin-off, balance expiration	0
7. Transition liability/(surplus) as of December 31, 2022 (1. - 2C. - 3C. - 4. + 5. + 6.)	\$382,425

¹ Transition liability or surplus rates shown are those paid on Tier One/Tier Two 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. The transition liability/(surplus) rate calculation shown below uses a fixed period ending December 31, 2027. The amortization period for the rate adjustment extends 18 months after the end of the fixed period to align with the biennial rate-setting cycle. **C**

	December 31, 2022	December 31, 2021
1. Total transition liability/(surplus)	382,425	491,423
2. Combined valuation payroll	800,234 D	748,820
3. Regular amortization factor ¹	6.856	5.363
4. Total transition liability/(surplus) rate	6.97%	12.24%

¹ Effective December 31, 2022, reflects alignment of amortization period with biennial rate changes and includes adjustment for contribution lag as described in the system-wide actuarial valuation report

Figure 9. Transition liability information

UNDERSTANDING YOUR VALUATION: SLGRP

A	This employer has a transition liability; in the first six months of 2022, they paid \$63,193 toward reducing their transition liability. In the last six months of 2022, they paid an additional \$70,489 toward their transition liability. These payments total \$133,682 for 2022.
B	Although this employer paid \$133,682 to reduce their transition liability, their transition liability also incurred \$24,684 in interest. This effectively reduced their transition liability by only \$108,998. When considering whether to pay off a transition liability or maintain payments, consider the trade-off of payments over time plus interest versus a large, one-time payment.
C	<p>The other factor in determining whether a transition liability payoff is a good option is the amortization date. If you joined the SLGRP prior to December 31, 2009 (which Actuarial Services or the Employer Services Center can check for you), your transition liability will fully amortize by December 31, 2027, and you will no longer be charged the rate after June 30, 2029. Leading up to that date, depending on how much is left, you could expect your transition liability percentage to change in order to pay off the remaining balance.</p> <p>If you were added to the SLGRP after December 31, 2009, the transition liability will amortize 18 years after you joined the pool.</p>
D	Remember that combined valuation payroll has an effect on other calculations. Here, the payroll increased, helping to reduce the transition liability rate. If the payroll had remained the same or close to the combined valuation payroll in 2021 the transition surplus rate would have been closer to 7.5%.

Side Account Information section

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

Reconciliation of Side Accounts

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, 2021	N/A	\$29,659,014	\$29,659,014
2. Deposits during 2022			
3. Administrative expenses		(1,000)	(1,000)
4. Amount transferred to employer reserves during 2022		(2,813,832)	(2,813,832)
5. Side account earnings during 2022		(521,708)	(521,708)
6. Side account as of December 31, 2022 (1. + 2. + 3. + 4. + 5.)		\$26,522,475	\$26,522,475

Figure 10: Side account reconciliation

A

This is the amount that was used to offset this employer's rates in the past year.

B

On your employer statement, this would be the sum of all the credits that were applied to your assets over the year.

Development of side account rate

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

December 31, 2022			December 31, 2021			
Combined valuation payroll		\$54,827,854 A	Combined valuation payroll		\$52,935,850	
	Side account balance	Amortization factor ^{1,2}	Side account rate ¹	Side account balance	Amortization factor ^{1,2}	Side account rate ¹
1.	\$4,977,827	4.704	(1.93%) B	\$6,095,948	5.363	(2.15%)
2.	21,544,648	12.926	(3.04%)	23,563,066	13.353	(3.33%)
3.	0		0.00%	0		0.00%
4.	0		0.00%	0		0.00%
5.	0		0.00%	0		0.00%
6.	0		0.00%	0		0.00%
7.	0		0.00%	0		0.00%
Total	\$26,522,475		(4.97%)	\$29,659,014		(5.48%)

¹ Amortization factor and side account rate not shown for side accounts with less than two years remaining in the amortization period
² Effective December 31, 2022, includes adjustment for contribution lag as described in the system-wide actuarial valuation report

Figure 11: Side account rate

A	The actuary provides data for the year that they used for the current valuation and the prior valuation. You should use this data for a quick comparison to determine why your rate may be higher or lower than expected.
B	This is your projected side account rate for the next biennium. 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.

Brief Summary section

Actuarial Methods and 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 advisory **actuarial valuation** before being implemented in the rate-setting valuation.

Brief Summary of Actuarial Methods and Assumptions

A detailed summary of the actuarial methods and assumptions used to prepare the December 31, 2022 valuation can be found in the system-wide actuarial valuation report.

Actuarial Methods and Valuation Procedures

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

<i>Actuarial cost method</i>	Entry Age Normal.
<i>Amortization method</i>	The UAL is amortized as a level percentage of combined payroll.
A	<p>The OPSRP UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 16 year period.</p> <p>The Retiree Healthcare UAL as of December 31, 2007 and experience in each subsequent biennium is amortized over a closed 10-year period. If a Retiree Healthcare program is over 100% funded the actuarial surplus is amortized over a rolling 20-year period over Tier One/Tier Two payroll.</p> <p>Senate Bill 1049 was signed into law in June 2019 and required a one-time re-amortization of Tier One/Tier Two 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 One/Tier Two gains and losses between subsequent odd-year valuations will be amortized as a level percentage of projected combined valuation payroll over a closed 20-year period.</p>
<i>Asset valuation method</i>	Market value of assets, excluding reserves.
<i>Contribution rate stabilization method (rate collar)</i>	The contribution rate stabilization method, also referred to as the rate collar, is applied separately to OPSRP and to each Tier One/Tier Two experience sharing pool (State and Local Government Rate Pool, School Districts) and independent employer. The UAL Rate contribution 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:	
<i>Investment return</i>	6.90% compounded annually on system assets.
<i>Interest crediting</i>	6.90% compounded annually on members' regular account balances. 6.90% compounded annually on members' variable account balances.
<i>Inflation</i>	2.40% per year.
<i>Payroll Growth</i>	3.40% per year.
<i>Healthcare cost trend</i>	Ranging from 6.6% in 2023 to 3.8% in 2074.
<i>Administrative Expenses</i>	\$64 million per year is added to the total system normal cost and allocated between Tier One/Tier Two and OPSRP based on valuation payroll.

Figure 12: Brief summary of actuarial methods

A	The amortization periods are different for Tier One/Tier Two, OPSRP, and Retiree Healthcare. 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 rate, which is also the assumed rate for interest crediting.

Changes

This page in your valuation describes changes in methods and assumptions since the last valuation.

Brief Summary of Actuarial Methods and Assumptions

Changes Since Last Valuation

The key changes since the December 31, 2021 actuarial valuation are described briefly below and are described in additional detail in the system-wide report.

Changes in Actuarial Methods and Allocation Procedures

- An adjustment was added to the side account amortization calculations and Pre-SLGRP liability and surplus calculations to reflect the delay between when a rate is calculated and when it takes effect.
- The timing of the amortization period for Pre-SLGRP liabilities and surpluses for SLGRP employers was revised to align with the biennial rate-setting cycle.

Changes in Economic Assumptions

- Assumed administrative expenses were updated to a combined assumption of \$64 million for Tier One/Tier Two and OPSRP.
- The assumed healthcare cost trend rates for the RHIPA program were updated.

Changes in Demographic Assumptions

- The merit/longevity component assumption of individual member salary increases was updated for all groups, including adding a select assumption of an additional 2% for all members for two years.
- The mortality improvement projection scale applied to all groups is based on 60-year unisex average mortality improvement rates by age. The assumption was updated to reflect publicly available data through 2019. For a complete table of rates, please refer to the 2022 Experience Study for the System, published in July 2023.
- Termination, disability and retirement rates were updated for some groups to more closely match observed and anticipated future experience.
- Assumptions for unused sick leave and vacation pay were updated.
- Participation assumptions for both RHIA and RHIPA were updated.

A complete summary of all assumptions used as part of the December 31, 2022 actuarial valuation is contained in the system-wide actuarial valuation report.

Figure 13: Brief summary of 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% payroll growth per year.
- Determine if there was or is now a **rate collar** applied to the rate. Rate collars are calculated for Tier One/Tier Two UAL increases as well as OPSRP increases. If a rate collar is justified, it will be applied to the applicable UAL rate.

For additional explanations of changes in the system rates:

- [System-Wide Valuation Report](#): Click the current 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, which includes the actuary’s presentation of the valuation report.
- [Employer Rate Summary](#): This website 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](#) available 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.

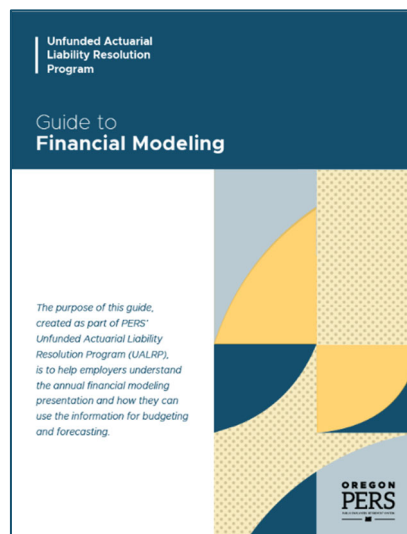


Figure 14. *Guide to Financial Modeling*

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

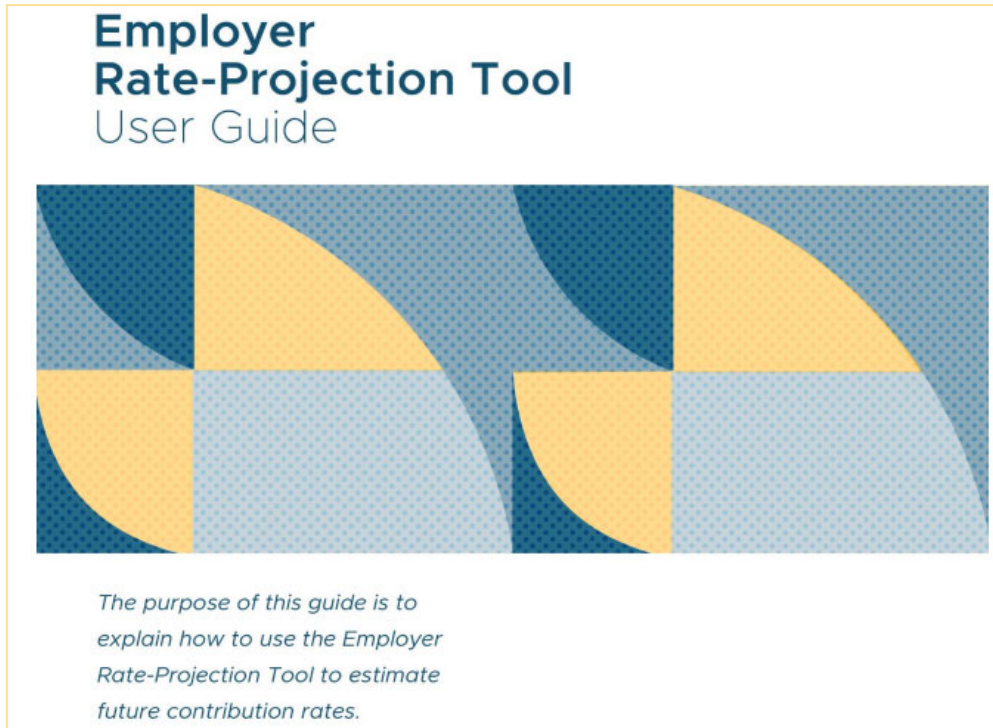


Figure 15: ERPT User Guide

PERS resources

[Actuarial & Financial Information webpage](#)

[Employer actuarial valuation reports](#)

[Employer contribution rates](#)

[*Guide to Understanding Your Rate*](#)

[Legislation Impacting PERS webpage](#)

[Senate Bill 1049 \(2019\) – Information and Implementation for PERS Employers webpage](#)

[Side Accounts webpage](#)

[System-Wide 2022 Actuarial 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% Individual Account Program (IAP) contribution, even if you are paying it on your employees' behalf.

Employer pool

Pooling groups individual employers with other employers for the purpose of determining pension costs and contribution rates. Pooling stabilizes employer rates by spreading the cost of financial and demographic changes, such as a drop in fund earnings or payroll reductions, across multiple employers rather than assigning the entire cost to a single employer. Learn more about employer pooling in the [Guide to Understanding Pooling: State and Local Government Rate Pool \(SLGRP\) Edition or School District Pool Edition](#).

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, 2022, the system-wide PERS' funded status was 72.8% without side accounts and 78.8% with side accounts.

Each pool also has its own individual funded status:

	SLGRP	School Districts	Independents
Without side accounts	70.6%	75.8%	68.2%
With side accounts	75.9%	85.9%	73.3%

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., 2021) and projects the correct rate to cover benefit needs 18 months in the future (e.g., 2023-25). It does this by establishing actuarial assumptions, one of which is the assumed rate of 3.4% 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 monthly salary threshold, 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.

Normal cost rate

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

Pool/pooling

See employer pool.

Rate collar

Rate collar is a method of stabilizing 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](#).

Retiree Health Insurance Account (RHIA)

RHIA is a retiree healthcare program funded by separate employer contributions. Tier One/Tier Two retirees and beneficiaries who are Medicare-eligible and participate in the PERS Health Insurance Plan (PHIP) are eligible for a \$60 monthly subsidy.

Retiree Health Insurance Premium Account (RHIPA)

RHIPA is a retiree healthcare program funded by separate employer contributions. Tier One/Tier Two retirees and beneficiaries who are not Medicare-eligible and participate in the PERS Health Insurance Plan (PHIP) are eligible for a monthly subsidy. The amount of the subsidy is based on their years of service credit. Only state agencies and the judiciary participate in RHIPA.

Side account

When an employer makes a lump-sum payment to prepay all or part of its pension unfunded actuarial liability (UAL), the money is placed in a special account called a "side account." This account is attributed solely to the employer making the payment and is held separate from other employer reserves. This is the most effective way for an employer to reduce their contribution rate. For SLGRP employers, the deposit is first applied toward your transitional liability, if you have any, and the rest is placed in your side account.

Side account rate

Rate relief attributable to an employer's side account. See [Side Account webpage](#).

Subject salary

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

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 (cost of pension benefits earned). If liabilities are 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.

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 valuation payroll.

Each member of an employer pool pays the same UAL rate regardless of the size of the employer.