UNFUNDED ACTUARIAL LIABILITY RESOLUTION PROGRAM

Guide to Understanding Unfunded Actuarial Liability

The purpose of this guide, created as part of PERS' Unfunded Actuarial Liability (UAL) Resolution Program, is to help employers understand what causes unfunded actuarial liability, how it affects their rates, and what they can do to help reduce it.

OREGON PERS
PUBLIC EMPLOYEES RETIREMENT SYSTEM

Revised: April 27, 2021

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.state.or.us.

About this guide

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

PERS' unfunded actuarial liability (UAL) is a hot topic. You've probably read about it in the news and had questions from your agency board about it. Where does it come from? When will it go away? How did we get to this point?

This guide gives you a thorough understanding of UAL by explaining what it is and why it's important, its history, what factors may be driving your UAL rate, and your options to reduce it.

Benefits owed > funds available

=

UAL

Unfunded actuarial liability (UAL) 101

What is UAL?

In simple terms, a UAL exists when a pension plan's liabilities (i.e., money the system owes to current and future retirees) are greater than its assets (i.e., money coming into the plan). In other words, it is how much money a PERS fund would be short if all benefits for members past and present had to be paid today.

The UAL essentially reflects benefits due to members that can't be paid. It's extremely unlikely that PERS would be in a position to have to pay all of our members past and present in one day, but we still want to close that gap. Shrinking UAL not only reduces employer contributions, but also makes PERS better able to weather market crashes, retirement booms, and other unforeseen circumstances that can significantly affect the rest of the system.

What causes UAL?

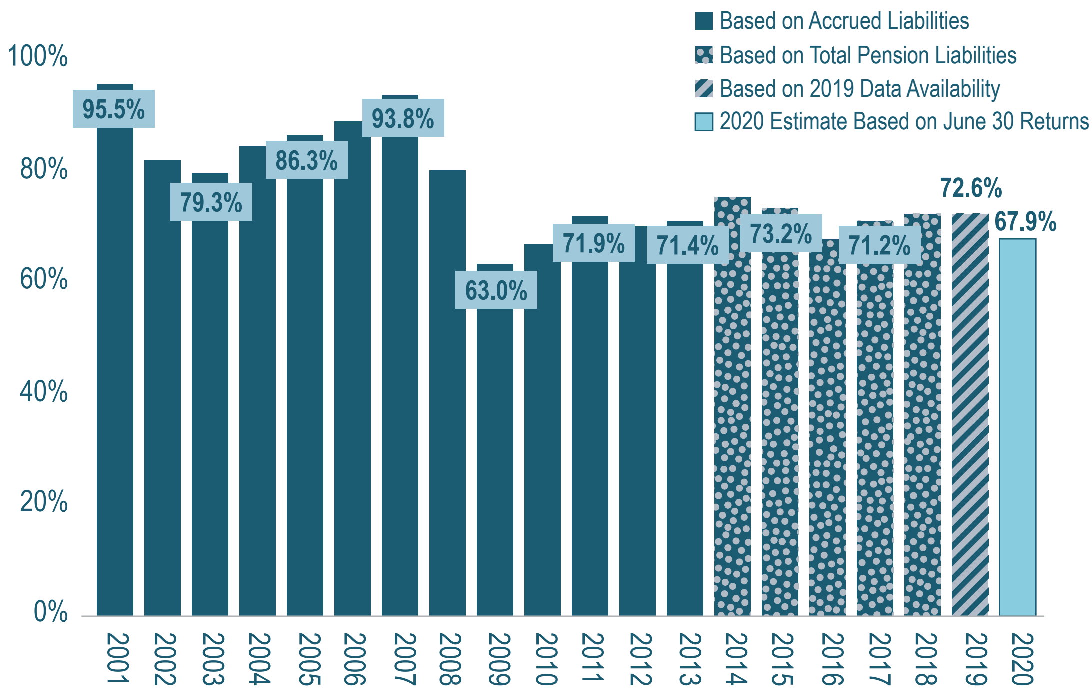
An unfunded actuarial liability can occur any time something unexpected happens that measurably affects a plan's costs or earnings.

For example, PERS' earnings rate is approved by the PERS Board and used for all of the actuary's calculations. If earnings fall below that rate, then we have UAL. If a significant number of people live longer than projected or have to take disability retirement, those are unfunded actuarial liabilities as well.

While our UAL is higher than we'd like, it's important to understand that even if (and when) PERS is 100% funded, we will still have occurrences that will cause UAL. UAL is a normal part of forecasting over long periods of time. Pension plans require a generational perspective — it took decades to get into this position (shown in the section "History of PERS UAL") and will take decades to work ourselves out of it.

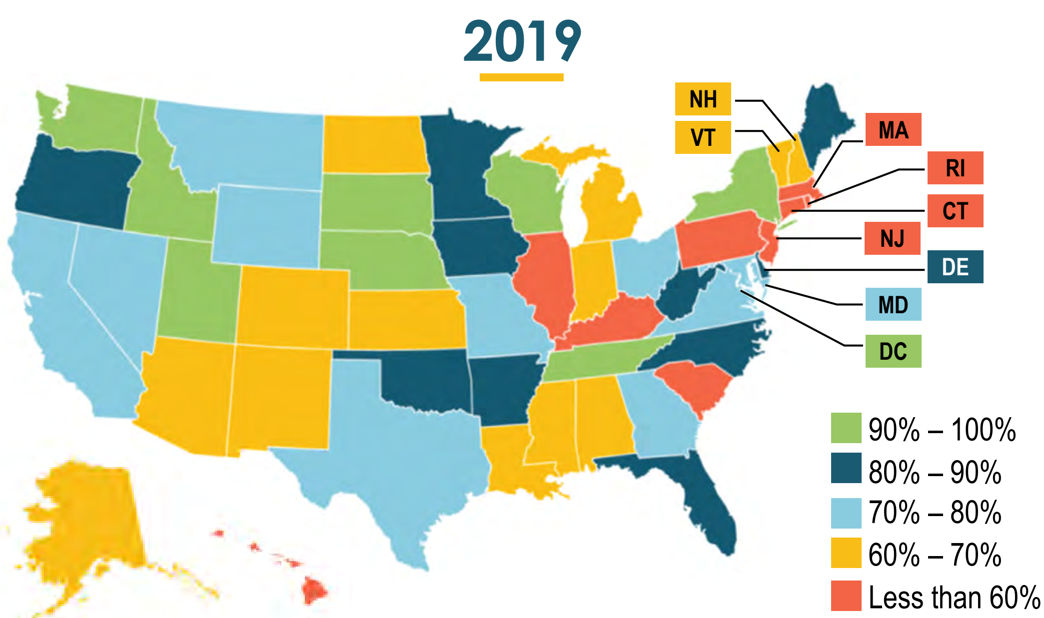
To illustrate this point, the charts on the next page show the funded status of all state pension plans over the last 20 years.

Important: Maintaining a reasonable UAL is a normal part of a pension plan, and having a UAL does not necessarily mean that a plan isn't financially healthy.



NOTE: Funding estimates for 2020 are based on actual investment returns and actuarial data as of November 15, 2020. Investment return data are as of September 2020 for plans with fiscal years ending on December 31.

Funded ratio average for statewide pension plans: 2001 to 2019 + 2020 estimate
Source: https://equable.org/state-of-pensions-2020-national-pension-funding-trends/



Aggregate statewide funding ratios
Source: https://equable.org/state-of-pensions-2020-national-pension-funding-trends/

Why is UAL important?

UAL is important because it affects how much employers pay to PERS (i.e., the **contribution rate** you pay to fund your retirees' benefits). It also affects the funded status of the PERS system. Reducing the UAL means lower contribution rates for you and greater retirement security for your employees.

Employer contribution rates

To reduce UAL, the PERS Board has directed the actuary to adopt methods and assumptions to **amortize** the Tier One/Tier Two UAL over 20 years, the OPSRP UAL in 16 years, and the RHIA and RHIPA UALs in 10 years.

A shorter amortization schedule means any system changes could result in a more significant UAL rate increase but less accrued interest.

A longer amortization schedule means system changes are spread out, preventing significant increases in rate but increasing accrued interest.

If all actuarial assumptions are met, we will meet those goals. However, as explained in the "History of PERS UAL" section of this guide (page 10), there are a lot of factors affecting the system that are outside of actuarial assumptions.

Collared Pension Contribution Rates (Excludes IAP)						
	Effective July 1, 2021			Effective July 1, 2019		
Payroll	Tier 1/Tier 2	OPSRP General Service	OPSRP Police & Fire	Tier 1/Tier 2	OPSRP General Service	OPSRP Police & Fire
Normal Cost Rate	14.92%	8.64%	13.00%	15.27%	8.40%	13.03%
Tier 1/Tier 2 UAL Rate[1]	13.04%	13.04%	13.04%	12.19%	12.19%	12.19%
OPSRP UAL Rate	1.69%	1.69%	1.69%	1.45%	1.45%	1.45%
Total Pension Rate	**29.65%**	**23.37%**	**27.73%**	**28.91%**	**22.04%**	**26.67%**
Average Adjustment[2]	(6.64%)	(6.64%)	(6.64%)	(6.91%)	(6.91%)	(6.91%)
Member Redirect Offset[3]	(2.45%)	(0.70%)	(0.70%)	N/A	N/A	N/A
Net Employer Pension Rate	**20.56%**	**16.03%**	**20.39%**	**22.00%**	**15.13%**	**19.76%**

[1] Includes Multnomah Fire District #10

[2] Adjustments shown are for side accounts and pre-SLGRP liabilities and are shown on system-wide average basis. For this purpose, adjustments are not assumed to be limited when an individual employer reaches a 0% contribution rate.

[3] Redirected member contributions under Senate Bill 1049 (2.50% of payroll for Tier 1/Tier 2 and 0.75% of payroll for OPSRP) will offset employer contribution rates beginning July 1, 2021. Redirect does not apply to members with monthly pay below a threshold. The values shown in the table incorporate an estimate of the effect of this limitation.

This chart from PERS actuary Milliman shows how UAL rates are included in the calculation of your contribution rate.

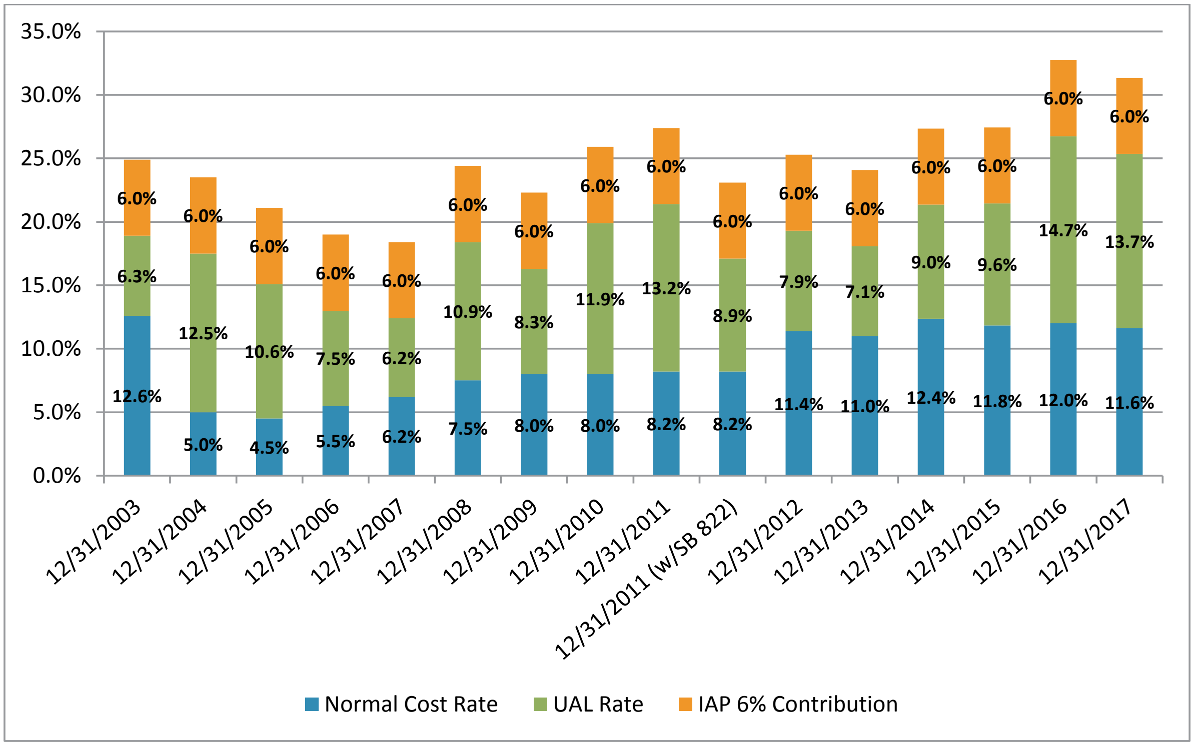
Funded status

The UAL also influences the system's **funded status**. The PERS Board does not aim for a particular funded status, but it does monitor it. The funded status and the UAL are related.

- The UAL is the shortfall in dollar amount needed to fully fund the benefits.
- The funded status is the percentage the system is funded.

The next chart from the PERS actuary illustrates how normal cost rate, UAL rate, and Individual Account Program (IAP) contributions all make up the combined rate. The higher the UAL, the higher the rate.

System-Wide Average Collared Base Contribution Rates – Combined Pension and Retiree Healthcare



As liabilities increase, our funded status decreases and the UAL rate increases.

How do you eliminate the UAL?

The UAL as a whole is the absence of funds. To eliminate the UAL, we can either reduce liabilities (benefits and/or expenses) or increase assets (contributions and/or investment earnings). **We can't cut benefits, but we can increase assets.** This is done by charging every employer a percentage of the UAL, split into payments over a 10- to 20-year period.

Each employer is assessed a "**UAL rate**" based on the next year's projected UAL. UAL rates are calculated separately for Tier One/Tier Two and OPSRP, then charged across all payrolls. So, even if you only have OPSRP payroll, you are still charged Tier One/Tier Two UAL. Because the Tier One and Tier Two retirement plans are closed to new members, UAL rates are charged across all payroll to make sure there is sufficient payment toward the Tier One/Tier Two liabilities instead of relying on the Tier One/Tier Two member populations, which are shrinking as members retire.

To dive into how your UAL rate is calculated, go to the section "Your UAL rate."

Important: Employers often ask if they can just "pay off" their UAL. The answer is that they can't — it doesn't work that way. A UAL represents a gap in funding. To close that gap, the funding is increased and divided among multiple employers. What you can do (in addition to paying your portion of the UAL through your UAL rate) is increase your assets and/or decrease your liabilities, which helps eliminate the UAL over time.

Roles and responsibilities for funding PERS

It's important for all stakeholders to understand the integration and the separation of responsibilities for funding PERS, called the PERS funding equation. Understanding how the system is funded and which entity is responsible for each part is critical to understanding how PERS came to its current position and how the path forward is developed.

The PERS Funding Equation

This basic equation — used by the PERS actuary at the end of each calendar year to calculate the system's funded status — illustrates how PERS is funded.

B	=	C	+	E
BENEFIT DESIGN		CONTRIBUTIONS		EARNINGS
present value of earned benefits		employer and member funds to pay pension benefits		future returns on invested funds
Set by: Oregon Legislature		Set by: PERS Board		Managed by: Oregon State Treasury, Oregon Investment Council

How PERS is funded

Benefits are managed by the **Oregon Legislature**. Any change (e.g., the creation of Tier Two, creation of OPSRP, addition of side accounts, new rules for work after retirement) must be voted on, approved, and passed by the Legislature.

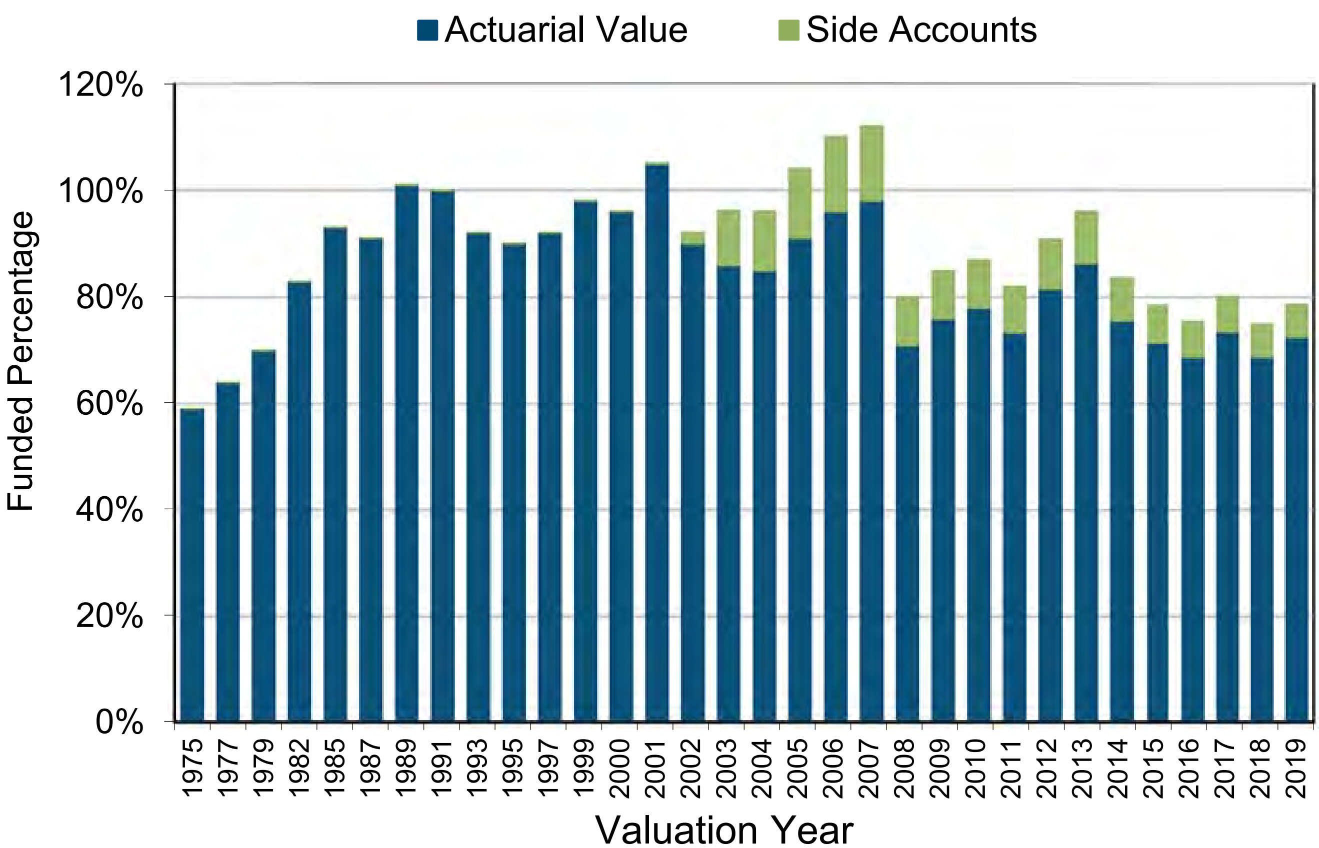
Contributions are managed by the **PERS Board** through the rate-setting process. The board is also responsible for adopting the assumed rate and actuarial methods and assumptions, including the amortization of the UAL (unless otherwise dictated by the Legislature).

To learn more about the rate-setting process, read PERS' "Guide to Understanding Your Rate.")

Earnings for the Oregon Public Employees' Retirement Fund (OPERF) are managed by the **Oregon Investment Council**. The stated investment objectives are to provide the highest possible return at a level of risk that is appropriate for both active and retired OPERF members contemplative of a 10-year forecast.

With a UAL, B does not = C + E. Addressing that issue has been a decades-long process, and realizing the benefits of those changes will also be a decades-long process.

History of PERS' UAL



The origins

PERS hasn't always had a significant UAL. As shown in the chart above, years when the funded percentage was near 100%, PERS had little or no UAL.

So what happened? There have been some significant changes throughout the years that have made a sizeable impact not only on PERS' UAL but on how the benefits are administered to members.

Refer to the timeline on the next page to understand what caused the drops and climbs in **funded status** shown in the graph above. For a shortened version, scroll down to "Key takeaways from UAL history." For links to more in-depth information, go to the section "Additional resources" on page 28.

> **Important:** UAL occurs whenever something happens outside of the actuary's assumptions or forecast. There isn't a wildcard factor to account for legislative changes or economic crises.

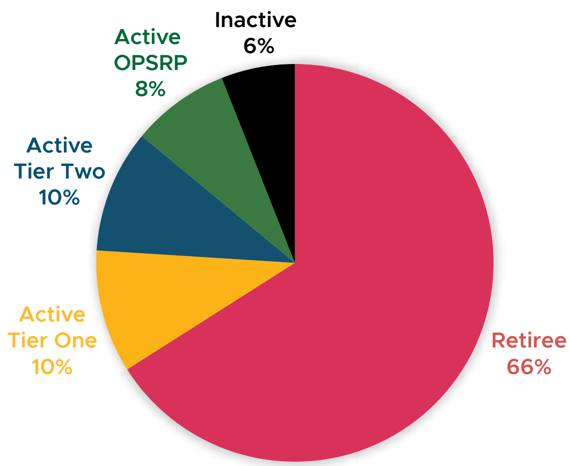
PERS UAL timeline

Year(s)	Action
1980s and 1990s	Investment markets are thriving, returns are well above expectation. Typically, this would boost the system's **funded status**, but a portion of earnings is credited to member retirement accounts, which increases the benefits owed to retirees and, thus, the system's liabilities.
1995 and 1996	Legislature establishes Tier Two for members hired from 1/1/1996–8/28/2003. Tier Two eliminates the guaranteed rate of return on regular accounts that caused the increase in liabilities from the 1980s and '90s. It also excludes lump-sum vacation payouts from final average salary and increases the retirement age from 58 to 60. The Legislature also eliminates tax remedy for anyone hired after 7/14/1995.
Early 2000s	The "legacy liabilities" from the '80s and '90s (a term that still comes up today), along with the dot-com crash of 2000, begin to reduce the funded status and widen the UAL. ▪ 1/1/2000: The Local Government Rate Pool (LGRP) is created to allow local governments to pool their assets and liabilities. ▪ 1/1/2002: LGRP ends and the State and Local Government Rate Pool (SLGRP) is established on a voluntary basis. ▪ 2002: Side accounts are established.
2003	Legislature creates Oregon Public Retirement Savings Program (OPSRP) and the Individual Account Plan (IAP) for new members from 8/28/2003. The new OPSRP plan has a number of differences from the Tier One and Tier Two plans, intended to decrease or eliminate unsustainably generous aspects of those plans: ▪ Full Formula benefit pension factor is decreased. ▪ Money Match benefit calculation is eliminated. ▪ Cost of living adjustments (COLA) prorate the first year, eliminate carryover. ▪ Lump-sum vacation payouts from **subject salary** are eliminated. ▪ Sick leave from final average salary is eliminated. ▪ RHIPA retiree health insurance is eliminated. ▪ Retirement age is increased to 65 for General Service, 60 for Police and Fire. ▪ OPSRP vesting period is increased from 5 years or age 50 to 5 years or age 65 (General Service) or 60 (Police and Fire).
2006	**UAL rates** are charged across plans for the first time. Previously, Tier One/Tier Two UAL rates would only apply to Tier One/Tier Two payroll, unlike today where it also applies to OPSRP. At this point, only Tier One/Tier Two, RHIA, and RHIPA have UAL costs; OPSRP does not have a UAL rate until 2009.
2008–2010	The "Great Recession" hits, deepening the already significant funding shortfall, or UAL. As a result, employer contribution rates, specifically the UAL rate, are increased to make up the difference.
2009	OPSRP's first UAL rate is applied to all payroll.

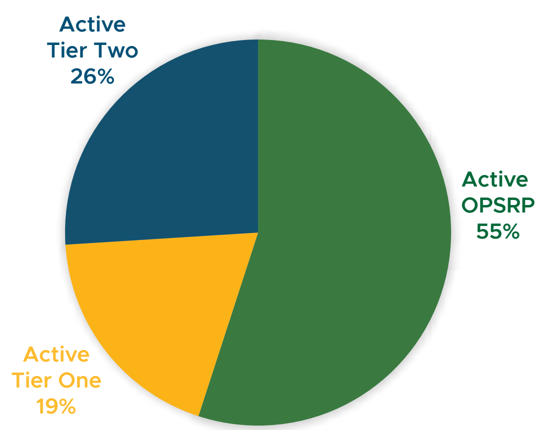
2011	The Legislature eliminates the tax remedy for prospective retirees who are not residents of Oregon or not subject to Oregon personal income tax who retire on or after January 1, 2012 (HB 2456).
2013	The Legislature passes SB 822, which modifies COLA and directs the PERS Board to recalculate employer contribution rates for the 2013–15 biennium. In 2013, the COLA rate limitation drops from 2% to 1.5% for all retirees. Thereafter, the rate is based on a decreasing COLA based on the level of a retiree's benefit plus a fixed payment at various benefit levels above $20,000. The Legislature requires PERS to recalculate employer contribution rates to account for these changes. The COLA reduction results in a $5 billion decrease in UAL. The PERS Board adopts a 20-year closed-period amortization schedule for new Tier One/Tier Two UAL amounts. Each rate-setting **valuation**, a new 20-year closed period amortization period is established based on the total Tier One/Tier Two UAL as of that valuation date less the remaining unamortized balance of previously established Tier One/Tier Two UAL bases.
2014	The **assumed rate** is reduced for the first time since 2007 from 8% to 7.75%.
2015	As a result of the Moro lawsuit, the annual COLA of 2% is restored for service time accrued before October 1, 2013. COLA after that date uses a lower rate. Service time accrued in both periods is blended.
2016	The assumed rate is reduced to 7.50%. This change reduces the funded status from 86.4% to 71.3% (without side accounts) and increases the UAL from $8,671.8M to $9,544.1M.
2017	The assumed rate is reduced to 7.20%.
2018	The Legislature introduces Senate Bill 1566 to reduce employer contribution rates. Changes include reduced **amortization** options for side accounts, the School Districts Unfunded Liability Fund, the Employer Incentive Fund, and the Unfunded Actuarial Liability Resolution Program.
2019	The Legislature passes Senate Bill 1049 to stabilize employer contribution rates and enhance features in Senate Bill 1566. Changes include: ▪ Establishes the Employer Incentive Fund. ▪ Enhances amortization options for side accounts. ▪ Establishes a final average salary limit. ▪ Decreases the maximum salary used in final average salary calculation. ▪ Allows unlimited work after retirement, and requires employer contributions on those hours. ▪ Expands opportunities for access to and amortization of side accounts. ▪ Redirects a portion of each member's IAP contributions to a new Employee Pension Stability Account. ▪ Re-amortizes the Tier One/Tier Two UAL to 22 years instead of the standard 20 years. The re-amortization of the Tier One/Tier Two UAL is the most significant change for employer rates; it keeps employer rates steady and lower but adds at least six years to the lifetime of the UAL.

Key takeaways from UAL history

- The current accrued **liability** was decades in the making and will be, unfortunately, decades in fixing. However, most of those corrections have begun. Pension plans, by design, take multi-decade or even generational views.
- 72% of the UAL is attributed to members who have already retired or are inactive (as shown in the pie chart below left).
    - 70% of Tier One active members are eligible to retire today and about 40% of Tier Two active members are eligible to retire today. If they did, that would increase the UAL by another 10%.
- There is not a lot of flexibility in substantive legislative changes that can affect the UAL.
    - No membership changes can be made retrospectively because the PERS Board can't change benefits that people have already been promised.
- The OPSRP plan will make a big difference in the UAL compared with Tier One and Tier Two. But it will take time.
    - As shown in the chart below right, active OPSRP members account for 55% of the system's normal cost, the money coming in, and the projected future benefits. However, they account for only 8% of the system's UAL.



Actuarial accrued liability by member category



Normal cost by member category

Remember: Just because there are limited options to address the UAL on a system-wide level doesn't mean that there are a limited ways to address employer rates. This is covered in the section, "How to reduce your rate" on page 22.

Your UAL rate

Now that you understand what UAL is, let's dive deeper into the makeup of your UAL rate.

Each PERS plan and employer pool has its own UAL. Your UAL rate depends on which rates apply to your pool and your payroll. These rates are combined to form your UAL rate.

UAL	Who pays it	Estimated payoff date (if all assumptions are met)
Tier One/Tier Two UAL	All employers	December 31, 2039
OPSRP UAL	All employers	December 31, 2035
RHIA UAL	All employers pay UAL rate	Currently fully funded at 159.5% (2019 valuation) December 31, 2029
RHIPA UAL	State agencies and the state judiciary only	December 31, 2029
Multnomah County Fire District #10 UAL*	City of Portland: 22% All Tier One/Tier Two employers, including City of Portland: share remaining 78% Cities of Gresham, Fairview, Wood Village, and Troutdale: pay twice the **combined valuation payroll** rate of all Tier One/Tier Two employers	December 31, 2027
Pre-SLGRP Pool UAL	Employers who were members of the Local Government Rate Pool or the State Agencies and Community Colleges Pool	December 31, 2027
Transition liability** or surplus rate	Employers who join SLGRP	December 31, 2027, or 18 years after joining***

*In HB 2278, the Legislature allocated this inactive employer's UAL to all PERS reporting employers. This is not the normal process for dissolved or insolvent employers.

**An employer can pay off this liability. This is the only time an employer can dollar for dollar pay off a UAL.

***For employers joining the SLGRP prior to December 31, 2009, the fixed period ends December 31, 2027. For all others, the fixed period ends 18 years after the date the employer joined the SLGRP.

Pool UAL

UALs are divided by pool, not by individual employer (except for the **Multnomah County Fire District #10 UAL**.

There are several pools in the PERS system, and each employer belongs to at least one, *even if you are independent*. The pools are:

- State and Local Government Rate Pool.
- School Districts Pool.
- Oregon Pension Service Retirement Plan (OPSRP). (Independents belong to this pool.)
- Retirement Health Insurance Account (RHIA). (Independents belong to this pool.)
- Retiree Health Insurance Premium Account (RHIPA). (State agencies and state judiciary belong to this pool.)

All employers in your pool are allocated a proportionate share of the applicable UALs based on their combined valuation payroll, not necessarily based on their actual past or current member **experience**.

In each pool, the UAL rate is set based on the total experience of *all members* of the pool, not the single employer. Pool members continue to be assessed a UAL rate until the UAL for the pool is eliminated.

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

The UAL amount allocated to you can change year to year based on the payroll you report and the total number of pool employers and their reported payroll.

This is why ensuring your contributions are reported on time is essential.

UAL isn't an issue to be solved individually if you're part of a pool. You can establish a side account to offset the UAL rate, but until the pool as a whole has eliminated its UAL, you will have UAL.

For more information about UAL rate, read "Unfunded actuarial liability (UAL) rate" on page 7 of the "Guide to Understanding Your Rate."

Tier One/Tier Two UAL

Independent employers

- Your Tier One/Tier Two UAL *does* represent your current and former employee experience; however, your OSPRP UAL is still pooled.
- Any supplemental payments (side accounts) you make go directly toward your UAL.
- Changes to your payroll can dramatically change your UAL rate. This can mean significant

swings in your employer contribution rate and changes to the **rate collar**, which may make it difficult to budget long term.

State and Local Government Rate Pool employers

The SLGRP pools Tier One and Tier Two UAL **assets**.

As a member of the SLGRP, you may have additional UAL rates. These additional mechanisms were put in place to ensure pool rate stability. On your billing statement, these rates are combined in your **Pension UAL rate** (to locate this rate, read section "Finding your UAL rates on your statements" on page 23.

- Pre-SLGRP liability
    - Prior to the formation of the SLGRP, there were two pools: the **Local Government Rate Pool** and the **State Agencies and Community Colleges Pool**.
    - Once the SLGRP was formed and these two groups were combined, the Local Government Rate Pool had a **lower** UAL as a percent of payroll than the SLGRP as a whole. As a result, it has a pre-SLGRP liability *offset*.
    - The State Agencies and Community Colleges pool had a **higher** UAL as a percent of payroll than the SLGRP as a whole. As a result, it has a pre-SLGRP liability *increase*.
    - The **pre-SLGRP pooled rate** will fully amortize by 12/31/2027.
- Transition liability/transition surplus
    - When a new employer joins the SLGRP, the actuary evaluates the employer's UAL as a percent of payroll against the pool's UAL as a percent of payroll.
        - To determine UAL as a percent of payroll, the actuary divides the employer's UAL by their payroll. The percentage is also listed in the employer's **valuation**.
        - If the employer's UAL as a percent of payroll is **higher**, the employer will be assigned a **transition liability**.
        - If the employer's UAL as a percent of payroll is **lower**, the employer will be assigned a **transition surplus**.
        - If an employer joined the SLGRP prior to 12/31/2009, then their transition liability or surplus will fully amortize on 12/31/2027.
        - If an employer joined after this time, the amortization period ends 18 years after the employer joined the SLGRP.
    - If an employer has a transition liability, they can pay it off.

Transition liability is the only time an employer can dollar for dollar pay off a UAL.

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, 2018	$2,568,795
2. January 1, 2019 through June 30, 2019	
A. Transition liability/(surplus) rate[1]	0.51%
B. Actual employer payroll	24,904,209
C. Payment to transition liability/(surplus)	127,011
3. July 1, 2019 through December 31, 2019	
A. Transition liability/(surplus) rate[1]	0.69%
B. Actual employer payroll	27,852,304
C. Payment to transition liability/(surplus)	192,181
4. Supplemental payment to transition liability	0
5. Interest	161,971
6. Adjustment due to merged, spun-off, or allocated employers	0
7. Transition liability/(surplus) as of December 31, 2019	
(1. - 2C. - 3C. - 4. + 5. + 6.)	**$2,411,574**

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

Development of Transition Liability or Surplus Rate

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

	December 31, 2019	December 31, 2018
1. Total transition liability/(surplus)	2,411,574	2,568,795
2. Combined valuation payroll	51,947,796	48,669,948
3. Regular amortization factor	6.875	7.606
4. **Total transition liability/(surplus) rate**	**0.68%**	**0.69%**

Sample Transition Liability Information from an employer valuation report.

School Districts Pool employers

All school districts, education service districts, and charter schools are automatically members of the School Districts Pool and are statutorily required to participate.

- The School Districts Pool pools all Tier One and Tier Two assets and liabilities.
- All members pay the exact same rates for all Tier One and Tier Two rates (not just the UAL rate) as reported in valuation 3000. This is just a general number for the School Districts Pool; it doesn't refer to any direct reporting for school districts.
    - **The only way to differentiate your net employer contribution rate is to establish a side account.**

OPSRP UAL

- All employers are pooled for OPSRP as required by statute.
- All employers pay the exact same OPSRP UAL rate and normal cost rates.
- Employers are allocated a portion of the OPSRP UAL based on their total **combined valuation payroll**.

RHIA/RHIPA UAL

RHIA

- All employers are pooled for the purposes of rate calculation for the Retirement Health Insurance Account.
- Only Tier One and Tier Two members are eligible for these benefits.
- RHIA UAL is fully funded; no UAL charge is allocated to employers. If there were a UAL, it would be charged to all employers.

RHIPA

- All state agencies and the state judiciary contribute to the Retiree Health Insurance Premium Account.
- All state agencies and the state judiciary pay the RHIPA UAL rate.
- The state agencies and state judiciary are allocated a portion of the UAL based on their combined valuation payroll.

Determining UAL rates

To determine the system-wide UAL, the PERS consulting actuary subtracts the PERS system's total actuarial accrued liability from the PERS system's actuarial value of assets. The PERS consulting actuary also does this for each pool, the group of independent employers, and the judiciary, and for each individual employer.

Remember: The information you and other PERS reporting employers provide contributes to this calculation.

The data

- **Actuarial accrued liability** is made up of:
  - Normal cost — the present value of benefits for the next year of service (if a system were 100% funded, this is the only rate for which you would be responsible).
  - Present value of benefits for prior years of service for active and inactive members.
  - Benefit payments —
    - Retirement and survivor benefits.
    - Death benefits.
    - Refund of contributions.
    - Administration expenses.
  - Assumption and method changes (can also reduce the actuarial accrued liability).
  - Plan changes (can also reduce the actuarial accrued liability).
  - Demographic **experience** changes (can also reduce the actuarial accrued liability).
- **Actuarial value of assets** is made up of:
  - Contributions —
    - Employer contributions.
    - Transfers from side accounts or other supplemental payments.
    - Judge member contributions.
    - Member purchases.
  - Investment income (less administrative expenses).
  - Member reserves.
  - Employer reserves.
  - **Benefits-in-force** reserves.

The math

The following demonstrates the calculation of the 2020 Tier One/Tier Two UAL.

Pool's assets – liabilities = UAL (if liabilities are greater than assets)

December 31, 2019	SLGRP	School Districts Pool	Independent Employers (includes State Judiciary)
1. **Actuarial accrued liability**	$44,122.1	$30,274.5	$6,916.0
2. **Actuarial value of assets**	$31,384.1	$22,394.1	$4,964.6
UAL amount (2 minus 1)	$12,738.0	$7,880.4	$1,951.4

Once the UAL is identified, the UAL rate is established.

Next year's UAL payment ÷ the pool's total UAL = UAL rate

December 31, 2019	SLGRP	School Districts Pool	Independent Employers (includes State Judiciary)
1. Total UAL	$12,738.00	$7,880.40	$22,711.70
2. Next year's UAL payment	$843.20	$521.70	$129.20
3. Combined valuation payroll	$6,768.80	$3,740.70	$1,024.20
UAL rate (2 divided by 1)	12.46%	13.95%	12.61%

Note: To learn more about your valuation, read PERS "Guide to Understanding Your Valuation."

Pension financial information is also found in PERS' Comprehensive Annual Financial Report.

Amortization periods

Not all UAL is amortized over the same period. This affects the rates and the rates' susceptibility to external influence, such as earnings or assumption changes.

Beginning December 31, 2007, the PERS Board adopted:

- Tier One/Tier Two UAL — amortized over a closed 20-year period (2027).
- OPSRP UAL — amortized over a closed 16-year period (2023).
- RHIA and RHIPA — amortized over a 10-year base.

Changes to increase rates over a shorter amortization period (e.g., 16 years for OPSRP) may increase the rate significantly more than a longer amortization period (e.g., 20 years for Tier One/ Tier Two); however, employers will also pay that increase off sooner and with less interest.

The amortization policy is set by the PERS Board but can be changed by the Legislature, as it was for the December 31, 2019, valuation when the Legislature required a one-time re-amortization of the Tier One/Tier Two UAL.

How to reduce your UAL rate

Open (or increase) a side account

The only way for most employers to reduce their UAL and contribution rate is to add a side account. The UAL is a balance of assets vs liabilities. When you pre-pay your pension obligations with a side account, you are reducing your liabilities, thus reducing your UAL. Even if you are part of a pool, a side account can only be used to your benefit.

If you already have a side account, you can make up to two additional payments a year; there are no minimum or maximum payment restrictions on these additional payments. For more information on creating a side account and side account earnings over time, check out PERS side accounts.

Consider joining the SLGRP

If you are an independent employer looking for UAL rate stability, consider joining the SLGRP. Your normal cost calculation won't change — the only potential difference is your UAL rate, the potential for a transition liability/surplus, and the removal of your **rate collar**. A resolution to join the pool is time sensitive, and your rates won't change immediately.

If you're interested, Actuarial Services can explain the process and mock-up rates based on your current information. To learn more, read "Guide to Understanding Pooling — SLGRP edition."

Pay your transition liability

If you're a member of the SLGRP, consider paying off your transition liability. Paying your transition liability is the only time you can dollar for dollar pay off your UAL. The transition liability also represents your own UAL, not the pool's. Once you pay off your transition liability, the rate associated with it is completely removed.

To decide if it makes sense for you, take a look at your most recent valuation. It will show how much you paid over the last year and how much interest you paid. Determine if it is worth it to keep up the monthly payments or if it makes more sense to pay it off in advance. (For instructions on finding this information, read "Guide to Understanding Your Valuation.") Paying off your transition liability does require an actuarial calculation, which is an additional fee. If you have questions or would like guidance with this process, please contact Actuarial Services.

Pay contributions on working retirees

This is not an optional choice like the previous items, but it can help reduce your UAL.

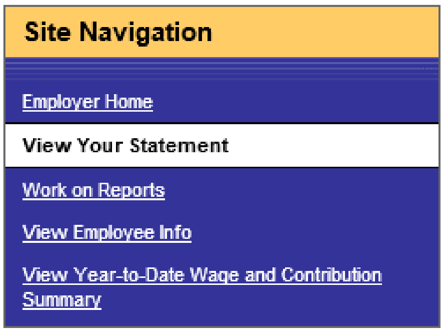
SB 1049 included a provision that requires employers to pay contributions on wages of retirees working post-retirement as if they were active members. Payroll from retirees is not calculated into your **combined valuation payroll** or your normal cost. Because we can't predict how many employers will opt to hire working retirees, their payroll has not been included as an assumption in the calculation of payroll. Any contributions you pay as a result of working retirees are, therefore, a "bonus" asset — a positive deviation from actuarial assumptions.

If these bonus contributions are substantial enough, they can alter the UAL calculations for pools, and they will certainly affect the Tier One/Tier Two calculations for independent employers.

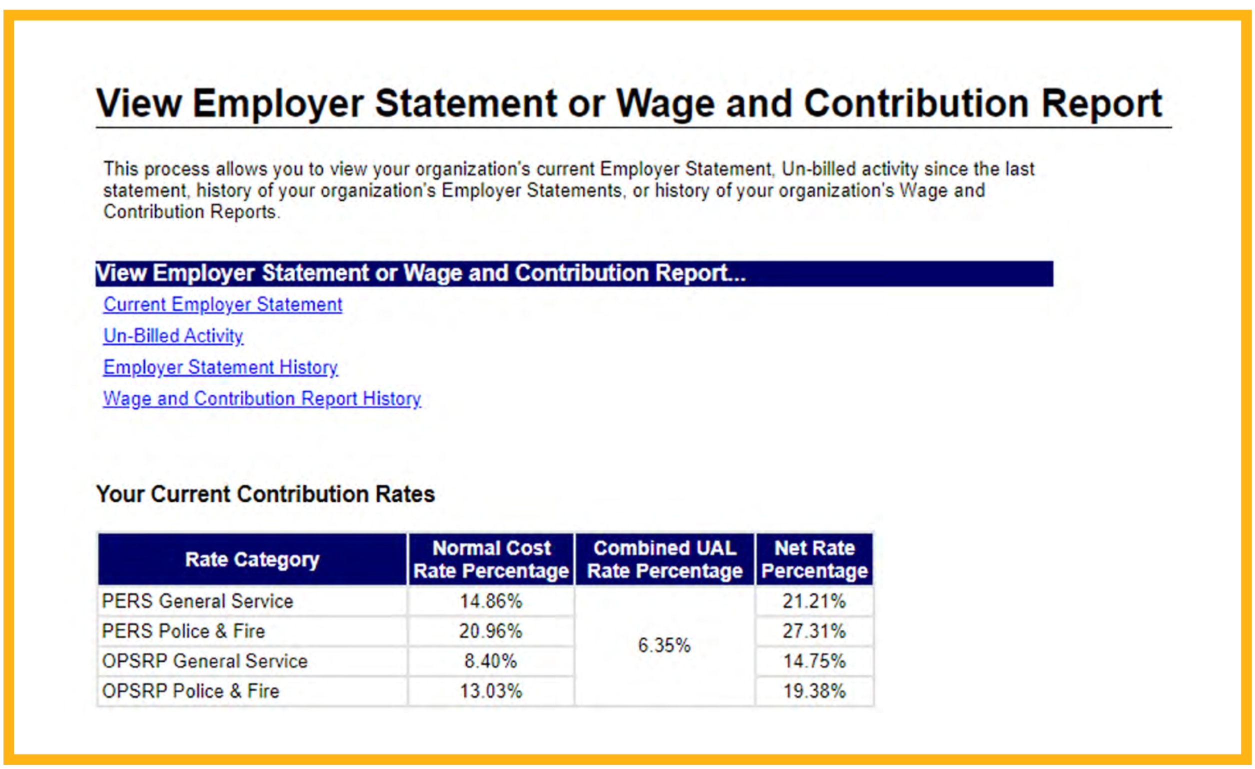
Finding your UAL rates on your statements

You can find your UAL rates in a few places on your statement. These steps explain how to access your rates and define them.

1. Choose View Your Statement from the Site Navigation list.



2. On the View Employer Statement or Wage and Contribution Report screen, note the "Your Current Contribution Rates" table at the bottom of the screen.



View Employer Statement or Wage and Contribution Report

This process allows you to view your organization's current Employer Statement, Un-billed activity since the last statement, history of your organization's Employer Statements, or history of your organization's Wage and Contribution Reports.

View Employer Statement or Wage and Contribution Report...

Current Employer Statement
Un-Billed Activity
Employer Statement History
Wage and Contribution Report History

Your Current Contribution Rates

Rate Category	Normal Cost Rate Percentage	Combined UAL Rate Percentage	Net Rate Percentage
PERS General Service	14.86%	6.35%	21.21%
PERS Police & Fire	20.96%		27.31%
OPSRP General Service	8.40%		14.75%
OPSRP Police & Fire	13.03%		19.38%

Your Current Contribution Rates

Rate Category	Normal Cost Rate Percentage	Combined UAL Rate Percentage	Net Rate Percentage
PERS General Service	14.86%	6.35%	21.21%
PERS Police & Fire	20.96%		27.31%
OPSRP General Service	8.40%		14.75%
OPSRP Police & Fire	13.03%		19.38%

A	"PERS" refers to Tier One and Tier Two.
B	Rate paid on each employee (and employed retiree) depends on their membership plan and job class category.
C	**Normal cost** percentage includes pension normal cost and, for Tier One/Tier Two, RHIA normal cost.
D	Combined UAL rate percentage includes the Tier One/Tier Two, OPSRP UAL and retiree healthcare UAL (RHIA and RHIPA for state agencies), along with credit from your side account(s), and pre-SLGRP and/or transition surplus (if you have one). Combined UAL rate = Tier One/Tier Two UAL rate + OPSRP UAL rate + RHIA/RHIPA UAL rate (if applicable) + pre-SLGRP/transition and/or liability/surplus (if applicable) + side account rate offset (if applicable).
E	Net rate percentage = normal cost rate + combined UAL rate.
F	To learn more about rates, read PERS Contribution Rates. For in-depth information about how rates are calculated, read "Guide to Understanding Your Rate."

3. To open your latest statement, under View Employer Statement or Wage and Contribution Report, select Current Employer Statement (or Employer Statement History if you'd like to open an older statement).

View Employer Statement or Wage and Contribution Report

This process allows you to view your organization's current Employer Statement, Un-billed activity since the last statement, history of your organization's Employer Statements, or history of your organization's Wage and Contribution Reports.

View Employer Statement or Wage and Contribution Report...

Current Employer Statement

Un-Billed Activity

Employer Statement History

Wage and Contribution Report History

Pension UAL

This section of your statement includes Tier One/Tier Two and OPSRP pension invoices; it does not include RHIA, RHIPA, or IAP.

Click the Pension UAL and Side Accounts link at the bottom.

Pension

Beginning Balance:

Deposits

Date	**Description**
01/12/2021	Employer Pension Remittances
	Total

Invoice	**Date Posted**	**Description**
1361484	01/12/2021	Contributions Pension
1361639	01/13/2021	Employment History Change
1362608	01/14/2021	Contributions Pension
1363215	01/19/2021	Contributions Pension
1363522	01/20/2021	Contributions Pension
	Total	

Pension UAL and Side Accounts

That link opens the UAL Contribution Detail screen. An example is shown below.

UAL Contribution Detail

Invoice	Rate Type	Side Accnt ID	Date Posted	Pay Date	Combined Subject Salary	Rate	Calculation
1361485	PERS Side Account Rate (EMPR)	5330	01/12/2021	12/18/2020	($ 24,675.12)	-2.39%	$ 589.74
	PERS Side Account Rate (EMPR)	5139	01/12/2021	12/18/2020	($ 24,675.12)	-6.78%	$ 1,672.97
1361486	OPSRP GS UAL Amortizn(EMPR)		01/12/2021	12/18/2020	($ 24,675.12)	1.45%	($ 357.79)
	PERS UAL Amortizn(EMPR)		01/12/2021	12/18/2020	($ 24,675.12)	16.73%	($ 4,128.15)

- **Rate Type** column shows credits and debits for your Tier One/Tier Two and OPSRP UALs:
  - PERS UAL rate (which is the Tier One/Tier Two UAL rate and, if applicable, the **pre-SLGRP transition surplus or liability**).
  - OPSRP GS UAL (this will show as GS (General Service) even if you have OPSRP P&F (Police and Fire)).
  - PERS Side Account Rate (if applicable) shows your side account offset applied.
- **Pay Date** column:
  - Pay close attention to the pay date. If you're posting salary from a previous valuation period, the rates will reflect that.
- **Rate** column:
  - These rates correspond to the amounts listed in your valuation.

RHIA/RHIPA UAL

In the RHIA/RHIPA section of your statement, click on the link for RHIA/RHIPA UAL.

RHIA/RHIPA

Beginning Balance:

Deposits

Date	Description
	Total

There are no deposits found for the given period.

Invoice	Date Posted	Description
1363741	01/21/2021	Contributions Pension
1364047	01/22/2021	Contributions Pension
	Total	

RHIA/RHIPA UAL

Ending Balance

Remember that unless you've posted salary that falls into a prior valuation period or you're a member of the State Agencies group or the State Judiciary, you won't have to worry about this section because **RHIA is fully funded**.

Here is an example of what the RHIA UAL statement looked like when there was a RHIA UAL rate:

RHIA/RHIPA Contributions

Invoice	Rate Type	Date Posted	Pay Date	Combined Subject Salary	Rate	Amount Due
1355831	RHIA UAL Amortizn(EMPR)	12/21/2020	02/17/2012	$ 6,790.88	0.50%	$ 33.95
1358186	RHIA UAL Amortizn(EMPR)	12/31/2020	02/20/2019	$ 1,603.88	0.43%	$ 6.90
	RHIA UAL Amortizn(EMPR)	12/31/2020	03/20/2019	$ 1,926.15	0.43%	$ 8.28
	RHIA UAL Amortizn(EMPR)	12/31/2020	04/19/2019	$ 2,053.19	0.43%	$ 8.83
	RHIA UAL Amortizn(EMPR)	12/31/2020	05/20/2019	$ 910.00	0.43%	$ 3.91
	RHIA UAL Amortizn(EMPR)	12/31/2020	06/20/2019	$ 580.13	0.43%	$ 2.49
1358529	RHIA UAL Amortizn(EMPR)	12/31/2020	12/31/2018	$ 1,057.88	0.43%	$ 4.55

Additional resources

PERS UAL Task Force

- In 2017, Governor Brown convened a task force to examine solutions to reduce PERS' liability. The task force focused on:
    - State assets and ongoing concerns.
    - Dedication of one-time and unexpected funds coming to the State of Oregon,
    - Possible one-time and unexpected local government funds to pay down the UAL.
- The PERS UAL Task Force Final Report covers a brief history of how the UAL accumulated and is the inspiration for many implemented legislative bills, such as SB 1566 and SB 1049.

12/31/2019 System-wide Actuarial Valuation Report

- This document indicates how UAL is calculated at a system-wide level and at a pool level.
- It also provides an executive summary on the status of the system as of the valuation date.

Public Employees' Retirement Fund (OPERF) Performance and Holdings

- This report provides current value of the fund.
- Includes monthly and quarterly status of the fund.
- Provides detailed information on how the fund is currently invested.

PERS by the Numbers 12/2020

- Provides full system details including demographics, benefits, and revenue.
- Provides historical information on UAL.

Glossary of actuarial terms

Actuarial accrued liability

Accrued liabilities are the present value of a member's promised pension benefits minus their normal cost for the future year as of 12/31 of the valuation year.

Actuarial valuation

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

Actuarial value of assets

The actuarial value of assets is the equivalent of the market value of a plan's assets. However, this definition excludes the Contingency and Capital Preservation Reserves, and the Rate Guarantee Reserve when it has a surplus.

Amortize/amortization

Amortization is an accounting technique used to spread costs over a set period of time.

Assets

Assets are the funds going into the system, 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 approves 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 7.2%, which has been in effect since January 1, 2018. 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.

Benefits-in-force reserves

This reserve is used to pay retired members' benefits and annuities. It is funded by earnings and fund transfers from member accounts and employer reserves associated with retirements processed during a calendar year.

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

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, 2019, the system-wide PERS' funded status was 72.5% without side accounts and 78.6% including side accounts.

Each pool also has its own individual funded status:

	SLGRP	**School Districts**	**OPSRP**	**Retiree Healthcare**
Without side accounts	71.1%	74.0%	76.6%	150.3%
With side accounts	77.2%	82.9%	76.6%	N/A

Liability

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

Multnomah County Fire District #10 UAL rate

This rate is determined by amortizing Multnomah County Fire District #10's unfunded accrued liability over the period ending December 31, 2027, and expressing the result as a percentage of combined valuation payroll.

As part of 2003 legislation, the Multnomah Fire District #10 UAL was allocated to all Tier One/Tier Two employers. Multnomah Fire District #10 was allocated $50,000 of the outstanding UAL, which was fully paid in November 2003. Of the remaining UAL, City of Portland is allocated 21.8743%, while all Tier One/Tier Two employers, including City of Portland, share in the remaining 78.1257%.

Four employers (City of Gresham, City of Fairview, City of Wood Village, and City of Troutdale) are required to pay twice the rate.

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.

Pre-SLGRP pooled rate

Prior to the formation of the SLGRP, the State and Community Colleges were pooled together and some employers participated in the Local Government Rate Pool (LGRP). The Tier One/Tier Two UAL attributable to the State and Community Colleges and the LGRP at the time the SLGRP was formed is maintained separately from the Tier One/Tier Two UAL for the SLGRP. The balance of the pre-SLGRP pooled liability attributable to the State and Community Colleges or the LGRP on the valuation date is amortized over the period ending December 31, 2027 and expressed as a percentage of the pool's combined (Tier One/Tier Two plus OPSRP) valuation payroll.

Rate collar

A method of stabilizing employer contribution rates. The current methodology limits the change in *base rates* (normal cost and UAL only) to 20% of the current base rate or 3% of payroll. The calculation of the collar can be more complex depending on the current employer or pool's funded status. This allows interest rate increases to be spread out over multiple periods. The practical effect of the rate collar is to maintain a level of rate stability, which is a priority for rate-setting for the PERS Board.

PERS Board policy

The maximum change typically permitted by the collar is 20% of the rate currently in effect (3% of payroll minimum collar width).

If funded status is 60% or lower, the width of the collar doubles to 40% of rate currently in effect (6% of payroll minimum collar width).

If the funded status is between 60% and 70%, the collar size is prorated between the initial collar and double collar level.

Rate collars are calculated at a rate pool level. They limit the biennium to biennium increase in the UAL rate for a given rate pool.

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 or surplus rate

When an employer joins the SLGRP, a transition liability or surplus is calculated to ensure that each employer enters the pool on a comparable basis. The transition liability or surplus for each employer is maintained separately from the Tier One/Tier Two UAL for the SLGRP.

The transition liability is amortized over a fixed period and is expressed as a percentage of the employer's combined (Tier One/Tier Two plus OPSRP) valuation payroll.

The transition surplus for each employer is also maintained separately from the SLGRP and is amortized over a fixed period via contribution rate offsets as a percentage of the employer's combined valuation payroll.

UAL rate

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

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