



2024 ACTUARIAL VALUATION REPORT

Law Enforcement Officers'
and Firefighters' Plan 2
Retirement Board



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"Supporting financial security for generations."



ACTUARIAL VALUATION REPORT

Law Enforcement Officers' and Firefighters' Plan 2 Retirement Board

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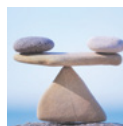
Legislative Evaluation and Accountability
Program Committee

LEOFF Plan 2 Retirement Board

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Letter of Introduction and Actuarial Certification LEOFF Plan 2 Actuarial Valuation Report as of June 30, 2024

November 2025

As required under [Chapter 41.45](#) of the Revised Code of Washington (RCW), this report documents the results of an actuarial valuation of the Law Enforcement Officers’ and Fire Fighters’ Retirement System Plan 2 (LEOFF 2).

The primary purpose of this valuation is to provide an update on the funding progress of LEOFF 2 based on a June 30, 2024, measurement date and under the funding policy established by the LEOFF 2 Board (the Board) and the Legislature. This report represents a “non-rate setting” valuation, meaning we do not provide calculated contribution rates. This valuation provides information on the developments in the plan over the past year. This valuation report should not be used for other purposes. Please replace this report with a more recent report when available.

This report is organized into the following sections:

1. Summary of Key Results.
2. Actuarial Exhibits.
3. Participant Data.
4. Appendix.
5. Resources.

The **Summary of Key Results** provides a high-level summary of the valuation results, funding policy, key plan provisions, and commentary on risk. The **Actuarial Exhibits** provide detailed actuarial asset and liability information. The **Participant Data** section provides key metrics of the participant data such as headcounts, average benefits, and average salary. The **Appendix** provides access to a summary of the principal actuarial assumptions and methods, major plan provisions, and additional information used to prepare this valuation. The **Resources** section outlines additional supplemental information found on our website.



Future actuarial measurements may differ significantly from the current measurements presented in this report if plan experience differs from that anticipated by the assumptions, or if changes occur in the methods, assumptions, plan provisions, or applicable law. The Risk Assessment [webpage](#) provides further information on the range and likelihood of potential outcomes that vary from expected results. The Commentary on Risk [webpage](#) provides additional risk education.

The valuation results summarized in this report involve calculations that require assumptions about future economic and demographic events. We believe that the assumptions and methods used in the underlying valuation are reasonable and appropriate for the primary purpose stated above. However, the use of another set of assumptions and methods could also be reasonable and could produce materially different results. Actual results may vary from our expectations.

For LEOFF 2, the investment return, inflation, and salary growth assumptions are prescribed by the Board. Please see our [2023 Economic Experience Study \(EES\)](#) for further information on economic assumptions. We developed the demographic assumptions used in this valuation during the [2013-2018 Demographic Experience Study](#).

In our opinion, we expect the combined effect of the assumptions we selected for this valuation to have no significant bias.

For this non-rate setting valuation that was prepared, primarily, to evaluate funding progress, we applied actuarial cost methods and funding policies consistent with our last rate-setting valuation. Please see the actuarial certification from that valuation report for commentary on the implications of the plan's funding policies, reasonability of amortization methods, and reasonability and sufficiency of actuarially determined contribution rates.

I (Matthew M. Smith) provided advice to the Legislature on the development of the asset valuation method. The asset smoothing method adopted during the 2003 Legislative Session ([Chapter 11, Laws of 2003, 1st Special Session](#)) was developed to address the volatility of actuarially determined contributions under the aggregate actuarial cost method when used in combination with the existing asset allocation policy of the Washington State Investment Board (WSIB). We also use this method when measuring funded status. The combination of the current asset smoothing method with any other funding method or asset allocation policy may not be appropriate.

The Department of Retirement Systems (DRS) provided us with audited member and beneficiary data as of June 30, 2024. We checked the data for reasonableness as appropriate based on the purpose of the valuation. The WSIB and DRS provided audited financial and asset information as of June 30, 2024. We relied on all the information provided as complete and



Letter of Introduction and Actuarial Certification Letter
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accurate. In our opinion, this information is adequate and substantially complete for purposes of this valuation.

The undersigned, with actuarial credentials, meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. While this report is intended to be complete, we are available to offer extra advice and explanations as needed. We encourage you to submit any questions you might have concerning this report to our e mail address state.actuary@leg.wa.gov. We also invite you to visit our website for further information regarding the actuarial funding of the Washington State retirement systems.

Sincerely,

Luke Masselink, ASA, EA, MAAA
Senior Actuary

Matthew M. Smith, FCA, EA, MAAA
State Actuary

SECTION I.

SUMMARY OF KEY RESULTS



Intended Use

This report provides information on the funding progress and developments in the plan over the past year. This report also discloses the data, assumptions, and methods we used to assess the funding progress. This report is not intended to satisfy the accounting requirements under the Governmental Accounting Standards Board (GASB) rules.

Similarly, this actuarial valuation is not intended to report on the overall health or financial condition of LEOFF 2. Such information can be found in the most recent [Report on Financial Condition](#), which we issue every two years.

Contribution Rate-Setting Cycle

Under current law, in July of even-numbered years, the Board reviews, and may adopt, the basic contribution rates calculated by the Board-retained actuary. These rates are based on an actuarial valuation performed on asset, participant, and plan information compiled in odd-numbered valuation years. In calculating basic contribution rates, the Board-retained actuary applies the statutory funding policies described in this section. The Board then adopts contribution rates for LEOFF 2 as provided under [RCW 41.26.720\(1\)\(a\)](#). The adopted rates remain in place for the ensuing biennium, subject to revision by the Legislature.

The Revised Code of Washington [41.45.070](#) requires that a temporary and supplemental contribution rate increase be charged to fund the cost of benefit enhancements enacted following the adoption of the basic rates. Supplemental contribution rates, if enacted, are included in the basic rates at the beginning of the next contribution rate-setting cycle. Please refer to the DRS [website](#) for current contribution rates.

Funding Policy

Washington State relies on systematic actuarial funding to finance the ongoing cost of the state retirement systems. Under this financing approach, we reduce the cost of future pension payments by the expected long-term return on invested contributions. The investment of these contributions is under the direction of WSIB. The Revised Code of Washington [43.33A.110](#) requires WSIB to maximize investment returns at a prudent level of risk.

The state's funding policy is found in Chapter 41.45 RCW — Actuarial Funding of State Retirement Systems. Under this funding policy, if all actuarial assumptions are realized and all future contributions required under this funding policy are made, we expect the funding policy to accumulate sufficient assets to provide for all future benefits for current members when due.

Funding policy includes the following goals:

- ❖ Provide a dependable and systematic process for funding the benefits to members and retirees of the Washington State retirement systems.
- ❖ Fully amortize the total cost of LEOFF Plan 1 not later than June 30, 2024.
- ❖ Fully fund LEOFF Plan 2, as provided by law.
- ❖ Establish long-term employer contribution rates that will remain a relatively predictable proportion of future state budgets.
- ❖ Fund, to the extent feasible, all benefits for members over the working lives of those

members so that the taxpayers who receive the services of those members pay the cost of their benefits.

The LEOFF 2 funding policy splits the required contribution rate by 50% for members, 30% for employers, and 20% for the state.

LEOFF 2 minimum contribution rate funding policy includes three tiers of rates based the plan's funded ratio. The minimum rates equal 100% of the Entry Age Normal Cost (EANC) when the funded ratio is below 105%. The minimum rates decrease to 90% of the EANC when the funded ratio meets or exceeds 105% and is less than 110%. If the funded ratio is at least 110%, then the minimum rates equal 80% of the EANC. An additional offset reduction to the 90% and 100% minimum EANC rates applies through the 2035-37 Biennium.

Comments on 2024 Valuation Results

Many factors influence actuarial valuation results from one measurement date to the next. These factors include changes in the plan provisions or funding policy, changes in assumptions or methods, and covered population and plan experience that varies from our expectations.

CHANGES IN PLAN PROVISIONS OR FUNDING POLICY

There were no laws passed during the 2025 Legislative Session that had a material impact on LEOFF 2 benefit plan provisions or funding policy.

CHANGES IN ASSUMPTIONS OR METHODS

- ❖ This valuation does not include any changes to economic or demographic assumptions since the prior valuation.
- ❖ We improved our modeling of benefits paid to retirees and beneficiaries in their month of death to better match current administration.

Please see the **Appendix** for additional considerations on assumption and method changes since the last valuation.

CHANGES IN COVERED POPULATION AND PLAN EXPERIENCE

- ❖ The actual rate of investment return on the Market Value of Assets (MVA) was 7.95% for Fiscal Year (FY) ending June 30, 2024.
- ❖ Salary increases were notably higher than expected. Members who were employed through the duration of the FY experienced, on average, an 11% increase in salary.

Detailed gain and loss information can be found in the **Actuarial Exhibits** section of this report.

Actuarial Liabilities

The following table summarizes key measures of actuarial liability along with the liabilities from last year's valuation. The Present Value of Fully Projected Benefits (PVFB) represents the total expected value of all future benefits payments for current members when discounted at the valuation interest rate. The Actuarial Accrued Liability identifies the portion of the PVFB that has been accrued or "earned" as of the valuation date based on the Entry Age Normal (EAN) actuarial cost method.

Actuarial Liabilities		
(Dollars in Millions)	2024	2023
PVFB	\$27,920	\$25,412
Actuarial Accrued Liability	\$20,738	\$19,011
Valuation Interest Rate	7.00%	7.00%

See the **Actuarial Exhibits** section of this report for a summary of actuarial liabilities. Also, see the Glossary on our [website](#) for brief explanations of the actuarial terms.

Assets

The following table shows the MVA and Actuarial Value of Assets (AVA) along with the approximate rates of investment returns.

An AVA is used to limit the volatility in contribution rates and funded status due to annual investment earnings. We smooth (or defer recognition of) the difference between actual and expected annual investment returns over a specific period, not to exceed eight years, corresponding to the magnitude of that difference.

Assets		
(Dollars in Millions)	2024	2023
MVA	\$22,081	\$20,617
AVA*	21,060	19,342
Member/Employer Contributions	496	452
Disbursements	677	818
Investment Return	1,633	1,327
Other	\$11	\$494
MVA Return**	7.95%	6.90%
AVA Return*	9.81%	9.54%

*The AVA is used in determining contribution rates and funded status.

**Dollar-weighted rate of return on the MVA, net of expenses.
Please note the dollar-weighted investment return may differ from the time-weighted investment return published by WSIB for the same time period.

See the **Actuarial Exhibits** section of this report for additional information on the plan's assets and for the development of the AVA.

Funded Status

The following table displays the plan's funded status as of the June 30, 2024, and June 30, 2023, measurement dates. Please see the **Actuarial Exhibits** section for more information.

Funded Status		
(Dollars in Millions)	2024	2023
a. Accrued Liability*	\$20,738	\$19,011
b. MVA	22,081	20,617
c. Deferred Gains/(Losses)	1,021	1,276
d. AVA (b - c)	21,060	19,342
Unfunded Liability (a - d)	(\$322)	(\$331)
Funded Ratio (d / a)	102%	102%

Note: Totals may not agree due to rounding.

**Liabilities valued using EAN cost method.*

Funded status is one of several measures that helps explain the health of a pension plan. The funded status represents the portion of the actuarial accrued liabilities covered by today's actuarial assets. This means a plan with 100% funded status has one dollar in actuarial assets for each dollar of accrued liabilities at the valuation date. A plan with funded status around 100% is generally considered to be on target with funding. However, funded status above/below 100% is not automatically considered over-funded/at-risk. The funded statuses presented in this report are not sufficient alone to determine whether a plan has enough assets to terminate or settle the plan obligations. Furthermore, a plan with a funded status above 100% may still require ongoing contributions.

Commentary on Risk

Actuarial Standards of Practice (ASOP) guide actuaries when performing and communicating their work. [ASOP No. 51](#) – Assessment and Disclosure of Risk Associated with Measuring Pension Obligations and Determining Pension Plan Contributions is specific to communicating risk in defined benefit pension plans, particularly in how actual future measurements may differ significantly from expected future measurements.

In the course of developing our actuarial valuation we make hundreds of assumptions, such as the level of returns on future investments, rates of retirement and mortality, and the future salary growth for active members. In some cases, small changes in these assumptions or unexpected plan experience can lead to significant changes in measurements, like the calculation of a plan's contribution rates or the projection of a plan's funded status. This can affect plan risk, and these sensitivities can evolve as the plans grow and mature over time. The Legislature's response to these changes and their action governing the state's pension system also affects plan risk. To help readers better understand some of these risks and their potential impacts, we have a Commentary on Risk webpage.

In the **Actuarial Exhibits** section of this report, we have also included the impact to LEOFF 2's funded status from changes in assumed rates of investment return and mortality.

Summary of Participant Data

The following table summarizes participant data used in the actuarial valuation for the plan year ending June 30, 2024, along with information from the prior valuation. See the **Participant Data** section for additional information.

Participant Data		
	2024	2023
Active Members		
Number	19,899	19,311
Average Annual Salary	\$145,197	\$136,552
Average Attained Age	40.7	41.1
Average Service	11.3	11.8
Retirees and Beneficiaries		
Number	10,294	9,460
Average Annual Benefit	\$64,418	\$61,638
Terminated Members		
Number Vested	1,365	1,434
Number Non-Vested*	3,277	3,067

**Members who terminated without a vested lifetime benefit but are eligible for a refund of their employee contributions with interest that currently reside in the trust.*

Key Economic Assumptions

This table shows key economic assumptions used in this actuarial valuation. There were no changes in these assumptions from our prior year's valuation.

Key Assumptions	
Valuation Interest Rate	7.00%
General Salary Growth	3.25%
Inflation	2.75%

SECTION II.

ACTUARIAL EXHIBITS



Actuarial Liabilities

Actuarial Liabilities		
(Dollars in Millions)	Present Value of Fully Projected Benefits	Entry Age Normal Accrued Liability
Active Members		
Retirement	\$14,988	\$8,865
Termination	297	52
Death	178	29
Disability	815	384
Return of Contributions on Termination	157	(38)
Return of Contributions on Death	76	38
Total Active	\$16,511	\$9,331
Inactive Members		
Terminated Vested	\$483	\$483
Terminated Non-Vested*	31	31
Service Retired**	9,962	9,962
Disability Retired	610	610
Survivors	302	302
Total Inactive	\$11,388	\$11,388
All Members		
Laws of 2025***	22	20
2024 Total	\$27,920	\$20,738
2022 Total	\$25,412	\$19,011

Note: Totals may not agree due to rounding.

*Members who terminated without a vested lifetime benefit but are eligible for a refund of their employee contributions with interest that currently reside in the trust.

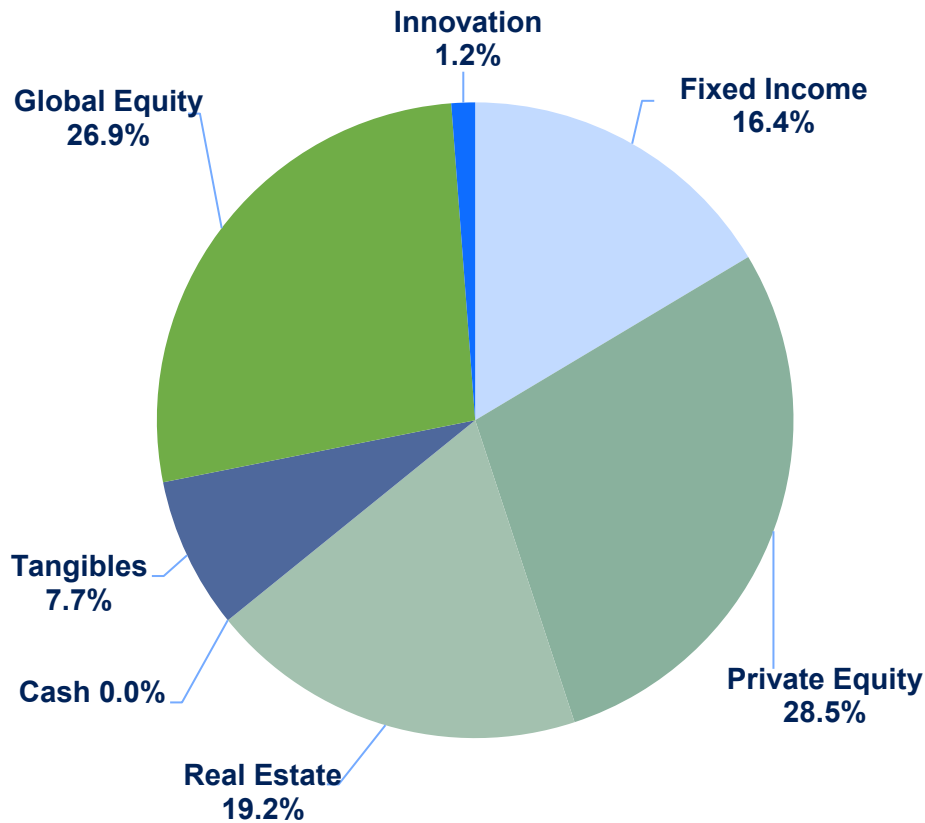
**Includes liability from individuals who are entitled to a portion of the primary member's benefit (legal order payees).

***Includes some law changes prior to 2025. Please see the **Appendix** for a full list of legislative changes included in the figures above.

Some line items in the EAN accrued liability tables are negative. This is a result of allocating costs for these benefits over an entire working career for active members who are no longer expected to receive these benefits. See the **Appendix** for additional details.

Plan Assets

Retirement Commingled Trust Fund (CTF) Asset Allocation



Source: Washington State Investment Board June 30, 2024, Quarterly Report.

Cash: Highly liquid, very safe investments that can be easily converted into cash, such as Treasury Bills and money-market funds.

Fixed Income: Securities representing debt obligations and usually having fixed payments and maturities. Different types of fixed income securities include government and corporate bonds, mortgage-backed securities, asset-backed securities, convertible issues, and may also include money-market instruments.

Innovation: Fund that provides the ability to invest in a broad range of assets that fall outside the traditional asset classes or management style of existing asset classes.

Global Equity: Shares of U.S. and non-U.S. corporations that trade on public exchanges or "over the counter." The ownership of a corporation is represented by shares that are claimed on the corporation's earnings and assets.

Private Equity: The infusion of equity capital into a private company (one that is not available on the public markets). Private equity investments include securities that are not listed on a public exchange and are not easily accessible to most individuals. These investments range from initial capital in startup enterprises to leveraged buyouts of mature corporations.

Real Estate: An externally managed selection of partnership investments with the majority of the partnerships invested in high-quality real estate leased to third parties.

Tangibles: The tangible asset portfolio invests in sectors such as infrastructure, timber, agriculture, natural resources, commodities, or other sectors consistent with the goals of the asset class.

Each asset class is unique in terms of expected return, standard deviation, and correlation to other asset classes. Please see the EES for more information.

The following tables show the MVA changes from the previous valuation and the calculation of the AVA.

Change in MVA (Dollars in Millions)		Calculation of AVA (Dollars in Millions)			
2023 Market Value	\$20,617	MVA at 6/30/2024	\$22,081		
Revenue		Expected 7.0% Return*	\$1,437		
Member Contributions	248	Actual Return	\$1,633		
Employer/State Contributions	248	Investment Gain/(Loss)	\$196		
Investment Return	1,633	Actual Rate of Return	7.95%		
Restorations*	11	Deferred Gains and (Losses)			
Transfers In	0	Plan Year	Smoothing	Years	
Miscellaneous	0	Ending	Period	Remaining	
Total Revenue	\$2,140	6/30/2024	1	0	0
Disbursements		6/30/2022	7	4	(741)
Monthly Benefits	661	6/30/2021	8	4	1,762
Refunds	13	Total Deferral	\$1,021		
Transfers Out	0	Market Value less Deferral (a - b)	\$21,060		
Expenses	2	70% of MVA	\$15,457		
Payables	0	130% of MVA	\$28,705		
Total Disbursements	\$677	AVA**	\$21,060		
2024 Market Value	\$22,081	Ratio (AVA / MVA)	95%		
<i>Note: Totals may not agree due to rounding.</i>		<i>Note: Totals may not agree due to rounding. The gain/(loss) for plan years not shown has been fully recognized.</i>			
<i>*Includes additional annuity purchases and service credit purchases.</i>		<i>*Dollar weighted rate of return assuming cashflows occur mid-year.</i>			
		<i>**AVA can never be less than 70% or greater than 130% of the MVA.</i>			

Additional information on the Retirement Commingled Trust Fund, including the asset allocation policy, can be found in the most recent EES.

Funded Status

Funded status is one of several measures that helps explain the health of a pension plan. The funded status represents the portion of the actuarial accrued liabilities covered by today's actuarial assets and provides information on the funding progress of the plan.

In our Actuarial Valuation Report (AVR), we calculate a plan's funded status by comparing the plan's current assets, determined under an asset valuation method, to the actuarial accrued liability of its members, calculated under an EAN actuarial cost method. Actuarial cost methods vary in the manner they allocate benefits to past and future time periods. We rely on an EAN actuarial cost method to better track the funding progress of accrued (or earned) benefits allocated to past service. Otherwise, the assumptions and methods used to measure funded status is consistent with the state's current funding policy and financing plan for future retirement benefits.

Funded status measures alone are not sufficient to determine whether a plan has enough assets to terminate or settle the plan obligations. Plans may have accumulated sufficient assets, at the measurement date, to satisfy the ongoing goal of having adequate assets to pay all currently earned benefits for existing members when due on an expected basis. However, ongoing contributions may still be required.

The following table provides general guidance on how to interpret a plan's funded status at a point

in time. Note that in the context of this table, we define “funding goals” to mean having sufficient assets to pay all expected benefits when due. The funded status is one measure that helps to show whether a plan is on track to reach that goal.

Interpretation of Plan Funded Status			
	Less than 100%	Equals 100%	Greater than 100%
Assets to Fund Earned Benefits as of the Measurement Date	Behind schedule on funding goals.	On schedule for funding goals.	Ahead of schedule on funding goals.
Contribution Rates	Typically requires higher contribution rates in the short term to raise plan's funded status to 100% over time.	Requires ongoing contribution rates for plans with members accruing future service.	Typically requires ongoing contribution rates for plans with members accruing future service. Short-term contribution rates may be lower to reduce the plan's funded status to 100% over time.

Plans with members accruing future service will typically require ongoing contributions. However, the level of actuarially determined contribution rates relative to current rates may be higher or lower depending on funded status and actual future experience.

The following table calculates the funded status of LEOFF Plan 2 using the methods described in this section.

Funded Status on an Actuarial Value Basis	
<i>(Dollars in Millions)</i>	
EAN Accrued Liability*	\$20,738
Valuation Assets	\$21,060
Unfunded Liability	(\$322)
Funded Ratio	
2024	102%
2023	102%
2022	104%
2021	104%
2020	113%
2019	111%
2018	108%
2017	109%
2016	105%
2015	105%

**Liabilities valued using the EAN cost method at a 7.00% interest rate. All assets have been valued under the actuarial asset method.*

The funded status depends on numerous assumptions. Two of the most significant assumptions are the mortality rates, which estimate how long we expect members to live, and the interest rate or expected return on plan assets.

A key component of the mortality assumption is the rate at which mortality is expected to improve in the future. To show the sensitivity of this assumption to the funded status measure, we calculated the impact of doubling the current mortality improvement assumption (longer lifespans than our best estimate) and assuming no future improvements (shorter lifespans than our best estimate). We further considered the impact if the expected return on assets was 1% lower or higher.

Note, for the mortality sensitivity, we applied a ratio of the 2023 valuation mortality sensitivity to estimate 2024 results. For the interest rate sensitivity, we used the best estimate interest rate of 7.00%, and 1% lower or higher interest rate for the corresponding sensitivity.

The following tables demonstrate how the funded status of the plan changes if we alter these assumptions.

Sensitivity of Funded Ratios to Mortality Rates			
<i>(Dollars in Millions)</i>	No Mortality Improvement	Best Estimate Mortality	Double Mortality Improvement
Accrued Liability	\$19,411	\$20,738	\$22,061
Valuation Assets	\$21,060	\$21,060	\$21,060
Unfunded Liability	\$1,649	\$322	(\$1,000)
Funded Ratio	108%	102%	95%

Note: Sensitivity liabilities estimated using 2023 valuation mortality sensitivity results.

Sensitivity of Funded Ratios to Interest Rates			
<i>(Dollars in Millions)</i>	1% Lower 6.0%	Best Estimate 7.0%	1% Higher 8.0%
Accrued Liability	\$23,933	\$20,738	\$18,124
Valuation Assets	\$21,060	\$21,060	\$21,060
Unfunded Liability	(\$2,873)	\$322	\$2,936
Funded Ratio	88%	102%	116%

The funded status measures we share in this report may vary from those presented in the [DRS Annual Comprehensive Financial Report](#). These differences occur because the assumptions and methods applied to determine contribution requirements (under a funding valuation) may not apply for financial reporting under GASB accounting standards (an accounting valuation). Put another way, these measurements are used for distinct purposes, and the results may vary between the two reports.

Actuarial Gain/Loss

The following table displays actuarial gains and losses, expressed as funded ratio changes as directed under [ASOP 4 – Measuring Pension Obligations and Determining Pension Plan Costs or Contributions](#). Actuaries use gain/loss analysis to compare actual changes to assumed changes from various sources with respect to assets and liabilities. We also use this analysis to determine:

- ❖ The accuracy of our valuation model and annual processing.
- ❖ Why funded ratios changed.
- ❖ The reasonableness of the actuarial assumptions.

Actuarial gains will increase funded ratios; actuarial losses will decrease funded ratios.

Under a reasonable set of actuarial assumptions, actuarial gains and losses will offset over long-term experience periods. Generally, a reduction in funded ratio will require a period of higher contribution rates and an increase in funded ratio will require a period of lower contribution rates.

Change in Funded Ratio by Source	
(a) 2023 Funded Ratio	101.7%
(b) Remove Laws of 2024	0.1%
(c) Expected Change in Funded Ratio	(0.1%)
(d) 2024 Expected Funded Ratio (a + b + c)	101.8%
Liabilities	
Salaries	(1.9%)
Retirement/Termination/Disability	(0.4%)
Mortality	0.0%
New Hires/Return to Work	(0.1%)
Miscellaneous	(0.1%)
(e) Total Liability Gains/Losses	(2.6%)
Assets*	
Investment Returns	2.7%
Contributions/Disbursements	(0.1%)
(f) Total Asset Gains/Losses	2.5%
Other Changes	
Plan Change	0.0%
Assumption and Methodology Changes	(0.1%)
(g) Total Other Changes	(0.1%)
2024 Funded Ratio	
(h) 2024 Funded Ratio Before Laws of 2025 (d + e + f + g)	101.7%
(i) Laws of 2025**	(0.1%)
(j) 2024 Funded Ratio (h + i)	101.6%
Total Change in Funded Ratio (j - a)	(0.2%)

Note: Totals may not agree due to rounding.

*Asset Gain/Loss performed on AVA not MVA.

Includes some law changes prior to 2025. Please see the **Appendix for a full list of legislative changes included in the figures above.

SECTION III.

PARTICIPANT DATA



Overview of System Membership

The membership of LEOFF 2 includes firefighters; emergency medical technicians; law enforcement officers, including sheriffs; university, port, and city police officers; and enforcement officers with the Department of Fish and Wildlife.

Active Membership By Employer	
State Agencies	161
Higher Education	89
Counties	3,061
County Sub Divisions	541
First Class Cities	5,157
Other Cities	5,298
Ports	233
Fire Districts	5,359
Total	19,899

The following table shows participant data changes from the prior valuation to this year's valuation. We divide the participant data into two main categories:

- ❖ Actives — Members actively employed and accruing benefits in the plan.
- ❖ Annuitants — Members and beneficiaries receiving post-retirement benefits from the plan.

We also provide the ratio of active to annuitant members. This is one way to track overall plan maturity, and its associated risks, with a smaller ratio indicating a more mature plan. Risks can emerge over time just by the nature of a pension plan growing or maturing. For example, as a plan matures – with fewer active, contributing members relative to the retiree population – the plan's obligations become larger relative to its source of contributions. Additional Commentary on Risk can be found on our website.

Reconciliation of Active and Annuitant Data	
2023 Actives	19,311
Hires/Rehires	1,903
New Retirees	(668)
Deaths	(18)
Terminations	(629)
2024 Actives	19,899
2023 Annuitants	9,460
New Retirees*	871
Annuitant Deaths	(67)
New Survivors	44
Other	(14)
2024 Annuitants	10,294
Ratio of Actives to Annuitants	1.93

Note: Figures exclude legal order payees entitled to a portion of member benefits under a court-ordered property division.

**Includes service and disability retirees.*

Summary of Plan Participants

Summary of Plan Participants		
	2024	2023
Active Members		
Number	19,899	19,311
Total Salaries (Millions)	\$2,889	\$2,637
Average Age	40.7	41.1
Average Service	11.3	11.8
Average Salary	\$145,197	\$136,552
Terminated Members		
Vested	1,365	1,434
Non-Vested*	3,277	3,067
Total Terminated	4,642	4,501
Annuitants		
Service Retired**	9,068	8,377
Disability Retired	770	667
Survivors	456	416
Total Annuitants	10,294	9,460
Average Monthly Benefit, All Annuitants	\$5,368	\$5,137
Number of New Service Retirees	776	839
Average Monthly Benefit, New Service Retirees	\$6,621	\$6,049

Note: The above figures exclude 604 legal order payees currently in receipt of benefit payments as of June 30, 2024.

*Members who terminated without a vested lifetime benefit but are eligible for a refund of their employee contributions with interest that currently reside in the trust.

**Includes retirements from active and terminated with vested status.

Retirement Age and Service		
	2024	2023
All Retired Law Enforcement Officers		
Average Entry Age	31.7	31.7
Average Age at Retirement	55.8	55.9
Average Service at Retirement	24.1	24.1
All Retired Fire Fighters		
Average Entry Age	30.8	31.0
Average Age at Retirement	57.0	57.2
Average Service at Retirement	26.2	26.2
All Members who Retired in the Last Year (With 21-25 Years of Service)		
Average Monthly Final Average Salary	\$11,549	\$10,804

Note: The average entry age was approximated as the difference between the age at retirement and years of service at retirement. This table includes age and service at retirement data associated with deceased retirees with surviving beneficiaries.

SECTION IV.

APPENDIX



Actuarial Assumptions or Methods

To calculate the contribution rates necessary to pre-fund a plan's benefits and measure a plan's funded status, in addition to the participant and asset data, an actuary uses an actuarial cost method, a funding policy, economic assumptions, and demographic assumptions. The actuary may also use an asset valuation method other than market value. The next subsection lists the methods and assumptions that change regularly or are new since the last AVR; the subsection that follows expands on comments related to EAN accrued liability results noted in the **Actuarial Exhibits** section of the report. Please see our Actuarial Methods [webpage](#) for descriptions of the actuarial cost methods and asset valuation method we use for this valuation, and please see our Actuarial Assumptions [webpage](#) for descriptions of all remaining assumptions.

CHANGES IN METHODS AND ASSUMPTIONS SINCE THE LAST VALUATION

- ❖ We updated our assumed benefit payment frequency and period timing to better model plan administration of prorated pension benefits paid to retirees and beneficiaries in their month of death.
 - In the month of death, DRS pays a prorated benefit payment to the date of death. Pension benefit payments are paid at the end of the month.
 - Prior to our update, we modeled approximately half of a monthly benefit less than currently administered by DRS per annuitant.
 - To better align our model with DRS administration, we changed the assumed benefit payment frequency and applied an interest adjustment to better model mid-month survival and end-of-month payment timing.
 - This change increased assumed costs for all retirement systems and plans.
- ❖ We corrected retirement benefit eligibility criteria in our model. Prior to the correction, members who attained age 70 in LEOFF 2 were modeled as immediate retirements regardless of whether they attained the required years of service under each plan's provisions.
- ❖ We updated our valuation to reflect legislation passed during the 2023 and 2024 Legislative Sessions.
 - Substitute House Bill 1007 ([Chapter 18, Laws of 2023](#)) expands the definition of veteran to include individuals who received an Expeditionary medal (or badge) during any armed conflict and expands eligibility for Interruptive Military Service Credit (IMSC).
 - Second Substitute House Bill 2014 ([Chapter 146, Laws of 2024](#)) expands access to fully subsidized IMSC by broadening the definition of veteran to include certain qualifying discharges.
 - ◇ We study rates of IMSC during our demographic experience study with the next study scheduled to be finalized this fall. To reflect the changes from the two IMSC laws above in the 2024 valuation, we relied on the previously prepared fiscal notes and adjusted them for interest.
- ❖ Substitute Senate Bill 6197 ([Chapter 304, Laws of 2024](#)) enacts four changes to the LEOFF Plan 2 Retirement System related to death benefits, the definition of "firefighter," managing overpayments, and disability benefits. To reflect this change in the 2024 valuation, we relied on the prepared fiscal note during the 2024 Legislative Session and adjusted for interest.

ENTRY AGE NORMAL ACCRUED LIABILITY RESULTS

Some line items in the EAN accrued liability tables are negative. This is a result of how these benefits are calculated under the EAN actuarial cost method. Under this cost method, the total cost of each benefit provision is divided into annual “pieces” that are spread, or accrued, evenly across a member’s working career. The accrued liability for each benefit provision is the difference between (1) today’s value of all expected future benefit payments for that benefit definition and (2) the remaining annual “pieces” between the valuation date and a member’s last assumed year of work. When item (2) is greater than item (1), the resulting EAN accrued liability is negative. How does this happen? For example, a retirement eligible, active Plan 2 member will not receive a Return of Contributions (ROC) due to termination in our model. Once an active employee is eligible for retirement, we do not assume that that member will terminate and elect an ROC. This means that as of the valuation date item (1) is zero. However, this Plan 2 member is still accruing annual “pieces” of the ROC termination benefit as it is spread through the end of their assumed working career, which means that as of the valuation date item (2) is positive. Therefore, under this actuarial cost method there is a negative EAN accrued liability for this benefit provision when subtracting item (2) from item (1).

Comments on Valuation Model

As required under [ASOP No. 56](#) – Modeling, we share the following comments related to our reliance on the ProVal® software developed by [Winklevoss Technologies](#).

- ❖ We understand this software model was primarily created for use by actuaries when performing valuations and projections of pension and retiree medical plans. The use of the model for this analysis is appropriate given its intended purpose.
- ❖ To assess the general operation of the model, we reviewed the output for reasonableness. This includes comparing the results to our simplified estimates done in Microsoft Excel and examining sample lives to confirm the programming is working as intended. We are not aware of any known weaknesses or limitations of the model that have a material impact on the results.
- ❖ The Board hires auditors to independently review and replicate the results of rate-setting valuations. This process provides an additional reasonableness check of the model output.

Additionally, we considered how the use of different inputs to the model (e.g., data/assumptions/provisions) produce different results and evaluated the relative impacts to our expectations. This allows us to gain a deeper knowledge of the model’s important dependencies and major sensitivities.

Summary of Plan Provisions

Key plan provisions used in the actuarial valuation can be found on our Summary of Plan Provisions [webpage](#). This is a high-level summary that is not meant to be an exhaustive list. For complete details of plan provisions, please refer to the statutes governing the retirement systems or contact the plan administrator (DRS). In the unlikely event that information contained in this summary conflicts with state law, the law takes precedence. There are no significant plan provisions excluded from this valuation.

SECTION V.

RESOURCES



[The Office of the State Actuary's Website](#)

Our website contains additional information and educational material not included in this report. The site also contains an archive of prior Actuarial Valuation Reports and other recent studies that OSA has produced. The following is a list of materials found on our website that could be useful to the reader.

[Glossary](#)

Definitions for frequently used actuarial and pension terms.

[Age Distributions](#)

Tables summarizing valuation statistics by system, plan, and member/annuitant age as of the latest rate-setting valuation.

[Historical Valuation Data](#)

Tables summarizing valuation statistics by retirement system and valuation period.

[Historical Actuarial Valuation Reports](#)

Archive of valuations over the past several years.

[2025 Economic Experience Study](#)

Report examining the long-term economic assumptions.

[2025 Report on Financial Condition](#)

Presentation examining the financial health of the retirement systems.

[2013-2018 Demographic Experience Study](#)

Most recent report examining demographic behavior within each of the retirement systems.

[Risk Assessment](#)

Information examining the effect of unexpected experience on the retirement systems.

[Commentary on Risk](#)

Educational information on the risks inherent in our actuarial measurements and how these measurements could vary under different circumstances.

[Contribution Rate Projections](#)

Forecasts for future contribution rates based on projected assets and liabilities.

[Interactive Reports](#)

Set of reports displaying funded status and projected benefit payments as of the latest rate-setting valuation.

[Pension Education](#)

Educational material on Washington State pension plans and the work produced by OSA.



ACTUARIAL VALUATION REPORT

Law Enforcement Officers'
and Firefighters' Plan 2
Retirement Board



Office of the State Actuary
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