



Office of the State Actuary

“Supporting financial security for generations.”

2023 VOLUNTEER FIRE FIGHTERS’ AND RESERVE OFFICERS’ (VFF) RELIEF AND PENSION FUND ACTUARIAL VALUATION

October 2024

The Office of the State Actuary (OSA) is required to perform actuarial services for the Board for Volunteer Fire Fighters and Reserve Officers (BVFF or the Board) under the Revised Code of Washington (RCW) [41.24.320](#). These services include at least one actuarial valuation report per biennium, as agreed with the Board. We completed an actuarial valuation report in the prior fiscal year and will continue producing full reports in odd-numbered years. In even numbered years, we prepare a letter for the Board providing an update on funding progress and information to assist the Board with their annual contribution rate adoption process.

Executive Summary

To prepare the results of this actuarial valuation letter, we estimated plan liabilities by rolling forward the liability from the [June 30, 2022, VFF Actuarial Valuation Report](#) (VAVR) to a measurement date of June 30, 2023. We also updated plan assets as of this same measurement date. The following table summarizes the change in the Entry Age Normal (EAN) Accrued Liability, Actuarial Value of Assets, and Funded Ratio for the combined pension and relief plans since the 2022 VAVR.

Change in Combined Funded Status for Pension and Relief Plans		
<i>(Dollars in Thousands)</i>	2023	2022
EAN Accrued Liability	\$267,504	\$263,135
Actuarial Value of Assets	\$272,992	\$271,089
Unfunded Liability/(Surplus)	(\$5,488)	(\$7,954)
Funded Ratio	102%	103%

Note: We relied on the participant data and assumptions from our 2022 VAVR to estimate the 2023 liability.

In August 2023, Reserve Law Enforcement Officers (RLEOs) were split out from the VFF plan and placed in a separate plan. As part of this split, approximately \$3.6 million in assets were transferred from the VFF fund to the new RLEO fund. We estimate the EAN Accrued Liability for RLEOs as of June 30, 2023, is \$2.6 million. Next year, the 2024 VAVR will include additional detail on the RLEO plan, including a funded status calculation.

Given the projected nature of a roll-forward valuation, we do not update contribution rate calculations. However, the level dollar EAN contribution rate, which evenly spreads the expected cost of member benefits over their career, tends to remain relatively stable over time. Below are the calculated pension and relief contribution rates using this method from the 2022 VAVR, alongside the rates that were adopted by the Board at their October 2023 meeting. We will update these contribution rate calculations in next year’s valuation report.



Calculated and Adopted Contribution Rates		
	Pension	Relief
EAN Calculated Rate in 2022 VAVR	\$123	\$239
Adopted Rate for 2024 Calendar Year*	\$140	\$240

Note: The EAN cost method has not been formally adopted by the Board for relief rates but could be considered as a possible funding policy approach.

**Applies to RLEOs and Emergency Medical Technicians.*

Please see the **Appendix** for additional details regarding this actuarial valuation.

Actuarial Disclosures and Certification

This letter should not be used for purposes other than those stated above and is not intended to satisfy the reporting requirements under the Governmental Accounting Standards Board. Please replace this communication with a future report or letter when available.

Unless otherwise noted, all data, methods, and assumptions used in this letter are consistent with the 2022 VAVR. We believe this information remains reasonable for purposes of this valuation and are in conformity with generally accepted actuarial principles and standards of practice as of the date of this letter. The use of different data, methods, or assumptions could also be reasonable and could produce materially different results.

Future actuarial measurements may differ significantly from the current measurements presented in this letter if plan experience differs from that anticipated by the assumptions or if changes occur in the methods, assumptions, plan provisions, or applicable law. We have not performed analysis of the potential range of such future measurements as part of this valuation. For more information regarding sensitivity and risks in the VFF plans, see the Commentary on Risk section of the 2022 VAVR.

The undersigned, with actuarial credentials, meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinions contained herein. While this letter 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 letter to us.

Sincerely,

Luke Masselink, ASA, EA, MAAA
Senior Actuary

Michael T. Harbour, ASA, MAAA
Actuary

cc:

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APPENDIX

Participant Data

To conduct our analysis, we relied on participant data from the 2022 VAVR. The table below summarizes key statistics of that covered population. Please see the 2022 VAVR for further details on the participant data, including a description of the plan provisions.

June 30, 2022, Participant Data	
Actives	
Number of Active Members in Relief Plan	9,649
Number of Active Members in Pension Plan	7,992
Average Age	42.9
Average Years of Service	10.6
Percent of Volunteers Covered by Pension Plan	83%
Inactives	
Number of Retirees/Beneficiaries	4,834
Average Age	76.1
Average Annual Benefit	\$2,363
Number of Terminated Vested Members	6,095
Average Age	62.4
Average Years of Service	15.7
Number of Duty-Death Survivors	11
Number of Duty-Related Disability Members	6

Liabilities

For purposes of this valuation, we rolled-forward the accrued liabilities from the 2022 VAVR by one year. This approach assumes members age, earn service credit, and exit the plans consistent with our assumptions. The following table displays this roll-forward of pension and relief plan liabilities. The liabilities in this letter are measured under the EAN actuarial cost method which produces an Accrued Liability (AL) that represents the portion of members' earned benefits, measured in today's dollars. Please see the 2022 VAVR for additional details on the methods and assumptions used.

Change in Accrued Liability for the Pension and Relief Plans			
<i>(Dollars in Thousands)</i>	Pension	Relief	Total
EAN AL at 6/30/2022	\$254,055	\$9,080	\$263,135
Normal Cost	\$891	\$2,054	\$2,945
Interest	\$14,923	\$624	\$15,547
Actual Benefit Payments	(\$12,649)	(\$1,474)	(\$14,123)
Other Changes*	\$0	\$0	\$0
Estimated EAN AL at 6/30/2023	\$257,220	\$10,285	\$267,504

Note: Totals may not agree due to rounding.

**Includes plan provisions, assumptions, and other changes.*



Please note we did not reflect the impact of new hires joining the plan over the past year. Including them would slightly increase the EAN AL because these members only accrue a small portion of their benefits in the first year of volunteering.

Assets

For purposes of this valuation, we reflected actual asset experience over Fiscal Year (FY) 2023. The tables below display the change in the Market Value of Assets (MVA) and the updated Actuarial Value of Assets (AVA) for the FY Ending June 30, 2023. Over this period, the MVA investment rate of return was 11.9 percent.

Change in Market Value of Assets	
<i>(Dollars in Thousands)</i>	
Market Value as of June 30, 2022	\$220,751
Revenue	
Member Pension Contributions	\$37
Employer Pension Contributions	\$356
Relief Plan Contributions	\$349
Investment Earnings Net of Expenses	\$25,868
Net Fire Insurance Premium Tax (Net FIPT)*	\$7,747
Total Revenue	\$34,357
Disbursements	
Refunds	\$19
Legal Expenses	\$0
Disability and Survivor Benefits	\$508
Medical Benefits and Physical Exams	\$966
Retirement Pensions (Monthly and Lump Sums)	\$12,629
Other	\$0
Total Disbursements	\$14,123
Estimated Market Value as of June 30, 2023**	\$240,985

Note: Totals may not agree due to rounding.

**Net FIPT information provided by BVFF staff. It excludes roughly \$3 million allocated to the BVFF administrative account.*

***Market Value does not match the amount reported in the Office of Financial Management's (OFM) 2023 Annual Comprehensive Financial Report. See below for information.*



Calculation of the Actuarial Value of Assets				
<i>(Dollars in Thousands)</i>				
a. Estimated Market Value at 6/30/2023				\$240,985
Deferred Gains and (Losses)				
Plan Year Ending	Original Deferred Gain/Loss	Smoothing Period	Years Remaining	Current Deferred Gain/Loss
6/30/2023	\$12,614	6	5	\$10,512
6/30/2022	(\$56,691)	8	6	(\$42,518)
b. Total Deferral				(\$32,007)
c. Market Value Less Deferral (a - b)				\$272,992
d. 70% of Market Value of Assets				\$168,690
e. 130% of Market Value of Assets				\$313,281
f. Actuarial Value of Assets*				\$272,992
g. Ratio of Actuarial Value to Market Value (f / a)				113%

Note: Totals may not agree due to rounding. All investment gains/losses prior to 2022 have been fully recognized in the AVA calculation.

**The AVA may not exceed 130% nor drop below 70% of the MVA.*

This analysis is based on financial and asset information from the Washington State Investment Board, Office of the State Treasurer, OFM, and the Board as of June 30, 2023. We did not perform an audit of this information.

The estimated June 30, 2023, MVA displayed above will not match the ending MVA reported in OFM’s [2023 Annual Comprehensive Financial Report](#) (ACFR) due to differences in how the Net FIPT was appropriated between the 2023 and 2024 FYs. The MVA used in this valuation is approximately \$3 million higher than OFM’s June 30, 2023, MVA. This difference is largely due the Net FIPT amount reported by BVFF staff, which we relied on for this valuation. If we were to rely on OFM’s MVA, the program’s combined funded ratio would drop approximately 1 percent. We expect these differences to be resolved in the 2024 asset figures and anticipate the 2024 VAVR assets will more closely align with OFM’s 2024 ACFR.

Please see our 2022 VAVR for a description of the asset valuation method, as well as for additional information on the development and use of the AVA.

Funded Status

Funded status is one measure that helps explain the health of a benefit plan and represents the portion of members’ earned benefits (measured by the EAN AL) covered by the plan’s valuation assets (measured by the AVA). The table on page one of this letter shows the combined funded status of the pension and relief plans decreased from 103 percent to 102 percent since last year’s valuation. Please note that we are showing this combined measure for educational purposes only. The Board’s adopted funding policy first allocates assets to fund pension benefits and any assets above the pension benefits’ EAN AL are then allocated to the relief benefits. For additional considerations regarding funded status, see our 2022 VAVR.



Contribution Rates

Contribution rates for Volunteer Fire Fighters (VFFs) are set in statute, whereas the Board annually adopts contribution rates for Reserve Law Enforcement Officers (RLEOs) and Emergency Medical Technicians (EMTs). As per RCW [41.24.030](#), employers of RLEOs and EMTs are required to pay the full cost of their benefits. As of the 2022 VAVR, RLEOs and EMTs comprise about 2 percent of volunteers in the plan.

OSA did not update the contribution rate calculations for this valuation because they rely on the Present Value of Future Benefits and the Present Value of Future Service figures which were not updated as part of this roll-forward approach. Below is a summary of the pension and relief contribution rates calculated in the 2022 VAVR. We will recalculate these rates in next year's valuation report.

Pension Contribution Rates

Under the current Board funding policy, the EAN cost method is used to determine pension contribution rates as a level dollar amount. This method divides the contribution rate into a normal cost rate and a rate to amortize the Unfunded Actuarial Accrued Liability (UAAL).

In last year's valuation, we calculated the pension normal cost rate to be \$123 per person and the UAAL rate to be \$0 per person. We expect the level dollar normal cost rate developed using the EAN cost method to remain relatively stable over time. Additionally, the UAAL rate will be non-zero only if the funded ratio of the pension plan drops below 100 percent. We will update both of these rate calculations in the 2024 VAVR.

Relief Contribution Rates

Under current Board funding policy, the Aggregate funding method is used to determine relief contribution rates as a level dollar amount. This funding method can produce volatile calculated relief contribution rates from year to year, primarily from investment market volatility.

Considering this volatility, OSA also calculated relief rates using the EAN cost method, specifically the normal cost component. The calculated relief normal cost rate was \$239 per person as of the 2022 VAVR (per the [2022 VAVR Handout](#)). Like the pension plan, we expect the level dollar normal cost rate under the EAN funding method to remain relatively stable over time. We will update the relief rate calculations in the 2024 VAVR.

RLEO Supplemental Information

[House Bill 1336](#), which passed during the 2023 Legislative Session, split the VFF Relief and Pension Fund into two systems – one for VFFs and EMTs, and a separate one for RLEOs. This split went into effect after the measurement date of this valuation (August 2023). Around that time, \$3.6 million of assets were transferred from the VFF fund to the RLEO fund. In preparation for this split, we provided a summary of the membership data for the RLEO population in our 2022 VAVR. Additionally, the following table displays the one-year roll-forward of the RLEO pension and relief plan liabilities to a June 30, 2023, measurement date.



Change in RLEO Accrued Liability for the Pension and Relief Plans			
<i>(Dollars in Thousands)</i>	Pension	Relief	Total
EAN AL at 6/30/2022	\$2,602	\$30	\$2,631
Normal Cost	\$8	\$16	\$24
Interest	\$152	\$2	\$154
Expected Benefit Payments*	(\$153)	(\$15)	(\$168)
Other Changes**	\$0	\$0	\$0
Estimated EAN AL at 6/30/2023	\$2,609	\$33	\$2,642

Note: Totals may not agree due to rounding.

**Current financial reports do not separately identify the actual benefit payments made to RLEOs. We therefore relied on expected benefit payments.*

***Includes plan provisions, assumption, and other changes.*