Seattle City Employees' Retirement System

January 1, 2025 Actuarial Valuation

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Retirement Board
Seattle City Employees' Retirement System
720 Third Avenue, Suite 900
Seattle, WA 98104

Dear Members of the Board:

As requested, we have prepared an actuarial valuation of the Seattle City Employees' Retirement System (SCERS) as of January 1, 2025. This report reflects the benefit provisions and contribution rates in effect as of January 1, 2025.

Purpose of the Valuation

The main purposes of this report are:

- to provide the employer actuarial contribution rate for the fiscal year ending December 31, 2026;
- to review the experience under the plan for the valuation year ending December 31, 2024; and
- to assess the funded position of the plan.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for SCERS. Actuarial computations presented for financial reporting in a separate report under GASB Statements No. 67 and 68 are for purposes of assisting SCERS and participating employers in fulfilling their financial accounting requirements. The computations prepared for these two purposes may differ as disclosed in our report. The calculations in the enclosed report have been made on a basis consistent with our understanding of SCERS' funding requirements and goals. The calculations in this report have been made on a basis consistent with our understanding of the plan provision described in Appendix B of this report. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Actuarial Assumptions

Actuarial assumptions, including discount rates, mortality tables, and others identified in this report, and actuarial cost methods are adopted by the Board. The Board is responsible for selecting the System's funding policy, actuarial valuation methods, asset valuation methods, and assumptions. The policies, methods, and assumptions used in this valuation are those that have been so adopted and are described in this report. The System is solely responsible for communicating to Milliman any changes required thereto. All costs, liabilities, rates of interest, and other factors for the System have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the System and reasonable expectations), and which, in combination, offer a reasonable estimate of anticipated experience affecting the System and are expected to have no significant bias.

Further, in our opinion, each actuarial assumption used is reasonably related to the experience of the System and to reasonable expectations which, in combination, represent a reasonable estimate of anticipated experience under the System.

Variability of Results

This valuation report is only an estimate of the System's financial condition as of a single date. It can neither predict the System's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of System benefits, only the timing of System contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to factors such as, but not limited to, the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The Retirement Board has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix A at the March 10, 2022 Board meeting.

Reliance

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by SCERS staff. This information includes, but is not limited to, statutory provisions, member census data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different, and our calculations may need to be revised.

Reliance on experts is based on the System's investment policy, NEPC's capital market assumptions, and NEPC's expected return model.

Limited Distribution

Milliman's work is prepared solely for the internal business use of SCERS. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third-party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exception(s):

a) SCERS may provide a copy of Milliman's work, in its entirety, to the System's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the System.

b) SCERS may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

No third-party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

Models

The valuation results were developed using models intended for valuations that use standard actuarial techniques. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in compliance with generally accepted actuarial practice and relevant actuarial standards of practice.

Qualifications and Certification

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the City of Seattle. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized accepted actuarial principles and practices, which are consistent with the principles prescribed by the Actuarial Standards Board and the *Code of Professional Conduct* and *Qualification Standard for Actuaries Issuing Statements of Actuarial Opinion* in the United States, published by the American Academy of Actuaries. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Conclusion

We would like to express our appreciation to the System staff who gave substantial assistance in supplying the data on which this report is based.

We respectfully submit the following report, and we look forward to discussing it with you.

Sincerely,

Nick J. Collier, ASA, EA, MAAA
Consulting Actuary

Julie D. Smith, FSA, EA, MAAA
Consulting Actuary

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1. Summary of the Findings

Overview

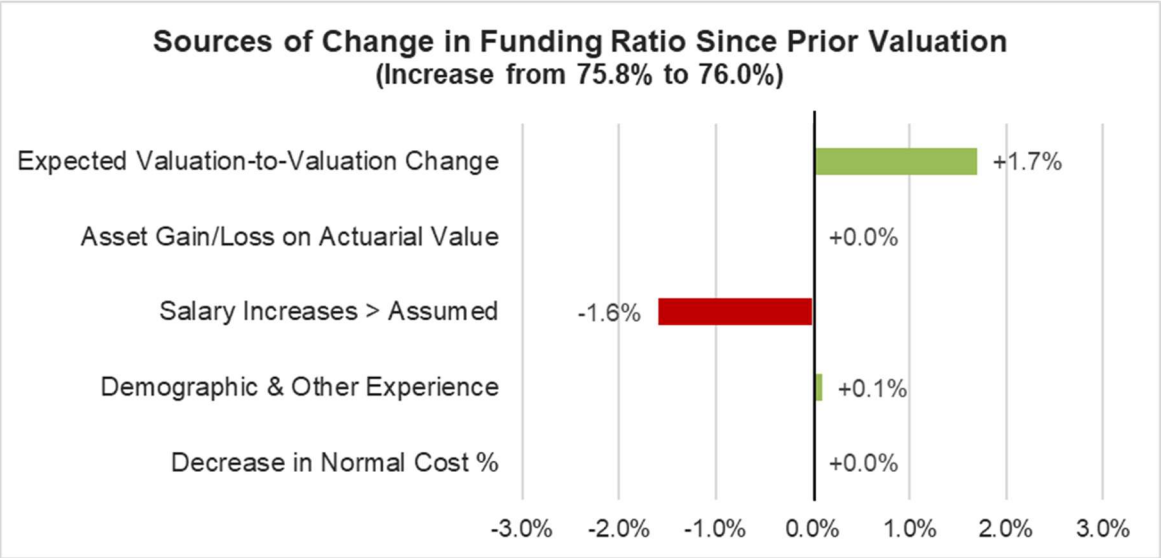
	January 1, 2025	January 1, 2024
Total Actuarial Contribution Rate	23.78%	24.00%
Employer Actuarial Contribution Rate	15.06%	15.17%
Funding Ratio	76.0%	75.8%

The January 1, 2025 Actuarial Valuation determines the minimum actuarially required employer contribution rate (referred to as the employer actuarial contribution rate) payable beginning January 1, 2026 based on the Board's funding policy. Several key points of the valuation are summarized as follows:

- **Investment Returns**: For the year ending December 31, 2024, the SCERS assets returned an estimated 8.3% on a market value basis (net of investment expenses), which was greater than the assumed rate of 6.75% for 2024. The result is an actuarial investment gain for the 2024 year. Note that only one-fifth of the current year gain is recognized in this year's Actuarial Value of Assets (AVA). Combined with prior years' asset gains and losses under the asset smoothing method, the return was a positive 6.8% on an actuarial value basis, which is used in the calculations of the Funding Ratio and employer actuarial contribution rate. See Section 3 of this report for additional details.
- **Employer Contribution Rate**: The employer actuarial contribution rate has decreased from the prior valuation, from 15.17% to 15.06% of payroll. Greater-than-assumed increase in salaries had a rate-increasing effect. However, this was more than offset by the rate-decreasing effects of the increased payroll, the declining normal cost rate, and other demographic experience. In total, this resulted in a decrease in the employer contribution rate. See the section following titled "Analysis of Change" for additional details on causes of the change.
- **Funding Progress**: The Funding Ratio (which is measured as the AVA divided by the Actuarial Accrued Liability) increased from 75.8% to 76.0%. Contributions made to pay down the Unfunded Actuarial Accrued Liability caused an expected year-to-year increase in the Funding Ratio. There was a decrease in the Funding Ratio resulting greater-than-assumed salary increases. Details of the changes in the Funding Ratio are shown in the following table. Note that the Funding Ratio is calculated using the AVA. Funding Ratio results based on the Market Value of Assets (MVA) are shown in Table 1 at the end of this section.

Analysis of Change

The table below shows the sources of change in the Funding Ratio between the prior and current actuarial valuations.



The following table shows the sources of change in the employer actuarial contribution rate between the prior and current actuarial valuations.

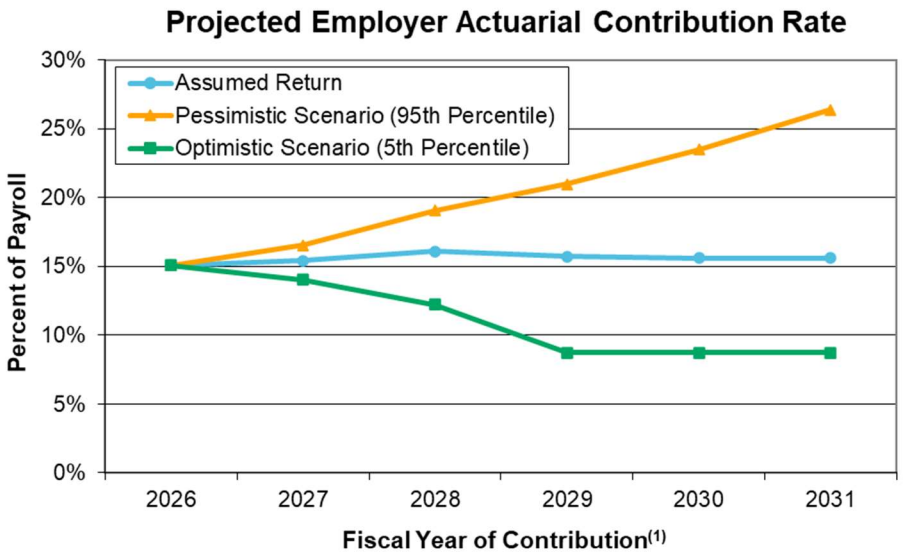
Employer Actuarial Contribution Rate

Based on the actuarial valuation of the benefits in effect under the SCERS as of January 1, 2025, the total actuarially required contribution rate decreased from 24.00% to 23.78% for the year beginning January 1, 2026. Reducing by the average 2025 member contribution rate of 8.72% (a blend of the 10.03% for Plan 1 members and 7.00% for Plan 2 members), the employer actuarial contribution rate is calculated to be 15.06% of pay effective January 1, 2026 under the funding policy, a decrease from the prior valuation's rate of 15.17%. This reflects the City's commitment to fund at least the actuarially determined contribution rate, which is based on a closed 18-year amortization of the Unfunded Actuarial Accrued Liability (UAAL) beginning January 1, 2025.

The current contribution rates for the death benefit program are projected to be sufficient to finance the $2,000 amount of death benefit.

We have performed a five-year projection of the employer actuarial contribution rates if a 6.75% return is earned on the Market Value of Assets in each future year (and assuming that no other actuarial gains or losses occur and there are no other changes to assumptions or benefit provisions). This projection shows the expected impact of recognizing the currently deferred asset gains and losses over time. The result is an increase in the employer contribution rate over the next couple years, although that increase assumes all assumptions are met.

It is likely that the Market Value of Assets will not return an annual average of exactly 6.75% in all future years. To show the potential impact of volatility in asset returns on the employer actuarial contribution rate, we have performed a projection of the contribution rates at the 5th and 95th percentile expected returns (thereby yielding a 90% asset-return-based confidence interval for the specified rates). These projections are shown in the graph and table on the following page. Note that it is assumed the employer contribution rate will not go below the member contribution rate (8.72%) in the optimistic scenario.



Projected Employer Actuarial Contribution Rate

Contribution Year[1]	Assuming 6.75% Future Returns	90% Asset Return Confidence Interval
2026	15.06%	15.06% - 15.06%
2027	15.41%	14.03% - 16.52%
2028	16.08%	12.22% - 19.07%
2029	15.71%	8.72% - 20.98%
2030	15.61%	8.72% - 23.49%
2031	15.61%	8.72% - 26.39%

1. Contribution year lags calculation by one year. For example: Contribution Year 2026 is based on the 2025 valuation results, amortized over 18 years beginning in 2025, if the increase takes place in 2026.

Compounded Average Return for Period

	Percentile	
	95th	*5th*
1-Year Period	*-12.6%*	*30.6%*
2-Year Period	*-7.3%*	*23.1%*
3-Year Period	*-4.9%*	*20.0%*
4-Year Period	*-3.4%*	*18.1%*
5-Year Period	*-2.4%*	*16.9%*

The 90% confidence interval results are based on the 5th and 95th percentile compounded returns for one-, two-, three-, four-, and five-year periods. Since actuarial assets are used to calculate contribution rates, deferred gains or losses would continue to decrease or increase the actuarially required employer contribution rate after these dates.

See Section 8 of this report for a detailed discussion of the projected contribution rates.

Funding Valuation

This report provides information relevant to the funding of SCERS. Information for financial reporting purposes was provided in a separate GASB 67 and 68 Disclosure report earlier this year.

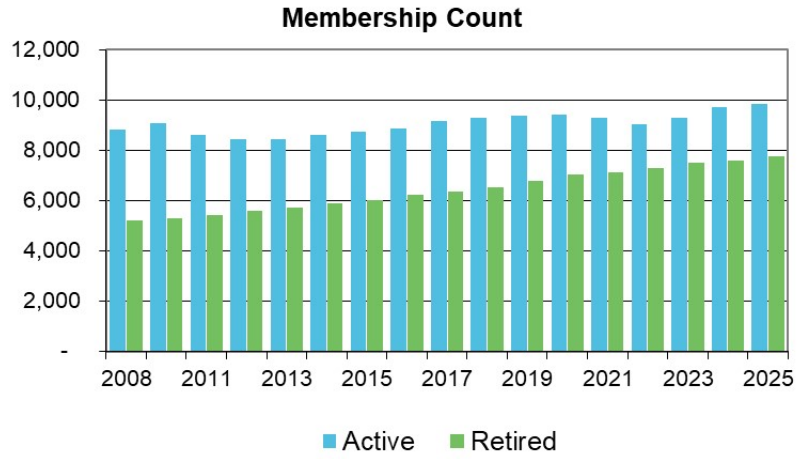
Contingent COLA Benefits

The Seattle Municipal Code allows for an increase in the cost-of-living adjustment (COLA) available to current and future retired members. Currently, the Floor COLA (also referred to as a Restoration of Purchasing Power COLA) is at the 65% level. The enhanced COLA benefit (70% Floor COLA) does not become effective until the System attains at least a 100% funding level.

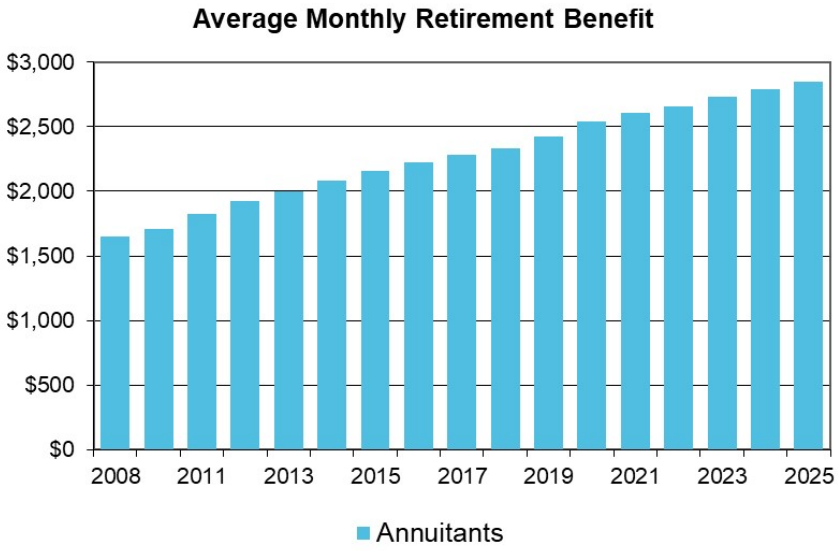
Since it is unknown when the 70% Floor COLA benefit will become effective and it will likely not be for a number of years given the current funded status of the System, we have not included this potential benefit change in the valuation. The valuation includes the value of the Floor COLA at the 65% level. See Appendix A of this report for further details.

Membership Information

Total valuation payroll has increased by 10.0% since the 2024 valuation, and active membership has increased by 1.2% during this same period. As of January 1, 2025, the annualized payroll is $1.18 billion for 9,855 active members.



Retired member counts and average retirement benefit amounts continue to increase steadily. As of January 1, 2025, there were 7,751 retired members and beneficiaries with an average benefit of $2,852 per month. This represents a 1.8% increase in the count and a 2.2% increase in the average benefit amount.



Analysis of Change in Member Population

The following table summarizes the year-to-year change in the member population.

	Actives	Deferred Members[1]	Retirees/ Beneficiaries
January 1, 2024 Valuation	9,740	3,667	7,616
Termination with Refund / Death	(104)	(170)	(253)
Termination without Refund	(363)	363	-
Service Retirement	(227)	(84)	311
Disability Retirement	(1)	-	1
Rehires	72	(72)	-
New Entrants / Beneficiaries	738	59	76
Data Corrections	-	-	-
January 1, 2025 Valuation	9,855	3,763	7,751

1. Counts include non-vested terminated members whose contributions are still on deposit with SCERS as of the valuation date. There are 2,005 non-vested terminated members as of January 1, 2025.

Summary Exhibit

A summary of the key results of this valuation, along with a comparison to the January 1, 2024 valuation, is shown in Table 1.

Note that the valuation measures are based on the Actuarial Value of Assets, which recognizes asset gains and losses over a five-year period; however, we have also shown key measures using the Market Value of Assets.

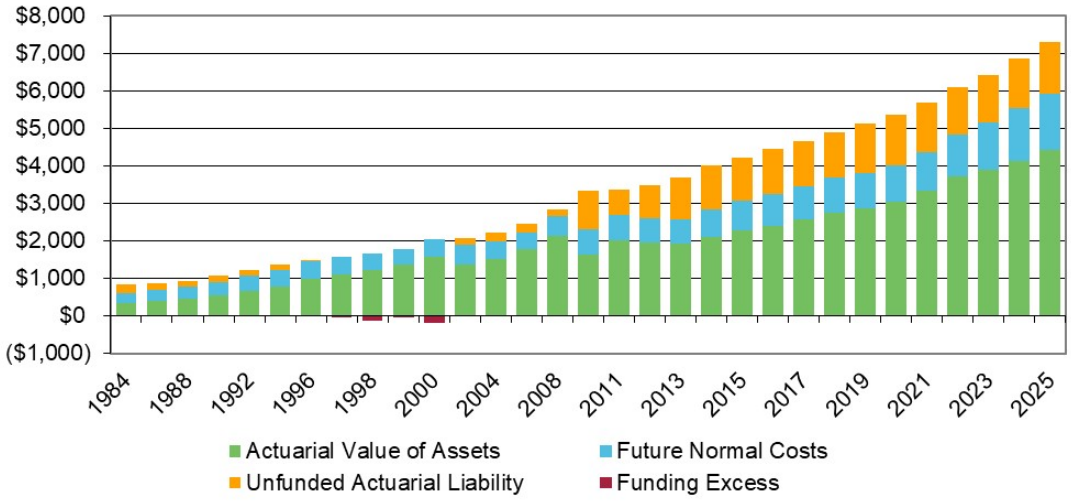
Graphs 1 and 2 and the associated data table on page 8 show historical asset and liability information, including the Present Value of Future Benefits (PVFB) and Present Value of Future Normal Costs (PVFNC), at previous valuation dates.

Table 1
Summary of Results

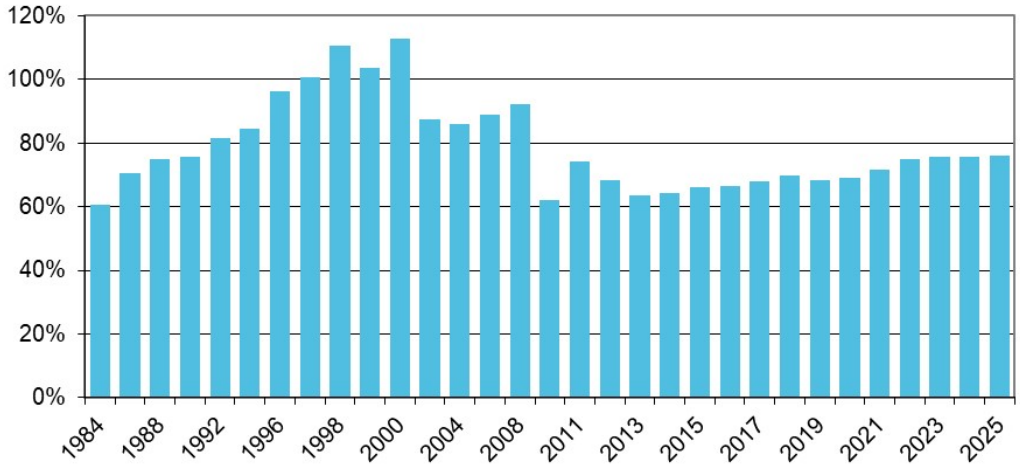
	Valuation January 1, 2025	Valuation January 1, 2024	Percentage Change
Total membership			
Active members	9,855	9,740	1.2%
Retired members & beneficiaries	7,751	7,616	1.8%
Vested terminated members[1]	3,763	3,667	2.6%
Total	21,369	21,023	1.6%
Pay as of Valuation Date			
Annual total ($millions)	$ 1,181.7	$ 1,074.5	10.0%
Annual average	119,906	110,313	8.7%
Average monthly benefit paid to current retirees and beneficiaries			
Service retirement	2,966	2,903	2.1%
Disability retirement	1,667	1,637	1.8%
Surviving spouse and dependents	1,961	1,907	2.9%
Total	2,852	2,792	2.2%
Actuarial Accrued Liability ($millions)			
Active members	2,551.6	2,323.8	9.8%
Retired members & beneficiaries	2,927.3	2,833.9	3.3%
Vested terminated members[1]	326.1	312.3	4.4%
Total	5,805.0	5,470.0	6.1%
Assets			
Actuarial Value of Assets ($millions)	4,412.3	4,143.7	6.5%
Unfunded Actuarial Accrued Liability or Surplus Funding ($millions)	1,392.7	1,326.3	5.0%
Normal Cost Rate plus amortization of UAAL			
Total Contribution Rate needed for 18-Year[2] amortization (as a % of Payroll)	23.78%	24.00%	(0.9)%
Employer Actuarial Contribution Rate	15.06%	15.17%	
Funding Ratio	76.0%	75.8%	0.3%
Normal Cost as a percent of salary	15.25%	15.47%	(1.4)%
Market Value of Assets (MVA) — for informational purposes only			
Assets based on MVA			
Market Value of Assets ($millions)	$ 4,332.6	$ 4,010.6	8.0%
Amortization of UAAL based on MVA			
Total Contribution Rate needed for 18-Year[2] amortization (as a % of Payroll)	24.30%	24.92%	(2.5)%
Funding Ratio based on MVA	74.6%	73.3%	1.8%

1. Includes non-vested terminated members whose contributions are still on deposit with SCERS as of the valuation date
2. Amortization method is closed 30-year beginning with the January 1, 2013 valuation. 2024 values shown are over 19 years.

Graph 1 Historical Asset and Liability Comparison



Graph 2 Historical Funding Ratios



Year	(in $Millions) PVFB	Assets	PVFNC	UAAL	Funding Ratio
2016	$ 4,458.1	$ 2,397.1	$ 853.0	$ 1,208.0	66.5%
2017	4,672.6	2,564.1	906.2	1,202.3	68.1%
2018	4,885.2	2,755.2	943.4	1,186.6	69.9%
2019	5,136.8	2,877.4	920.1	1,339.3	68.2%
2020	5,378.0	3,040.7	966.9	1,370.4	68.9%
2021	5,688.8	3,345.8	1,015.8	1,327.3	71.6%
2022	6,089.4	3,717.2	1,130.4	1,241.8	75.0%
2023	6,410.7	3,903.1	1,252.7	1,254.9	75.7%
2024	6,874.9	4,143.7	1,404.8	1,326.3	75.8%
2025	7,315.9	4,412.3	1,511.0	1,392.7	76.0%

2. Scope of the Report

This report presents the actuarial valuation of the Seattle City Employees' Retirement System as of January 1, 2025.

A summary of the findings resulting from this valuation is presented in the previous section. Section 3 describes the assets of the System. A summary of the assets is set forth in Table 2. Sections 3, 4, and 5 describe how the obligations of the System are to be met under the actuarial cost method in use.

Section 6 discloses additional historical information.

Section 7 sets forth estimated actuarial gains or losses from various sources. Section 8 shows projections of the System's funding under both optimistic and pessimistic scenarios. Section 9 shows projections of SCERS benefit payments and dollar contributions over a 10-year period following the actuarial valuation. Section 10 provides a general discussion of potential risks to SCERS' future funding levels.

Appendix A is a summary of the actuarial procedures and assumptions used to compute the liabilities and contributions shown in this report.

The current benefit structure, as determined by the provisions of the governing law on January 1, 2025 is summarized in Appendix B. Schedules of valuation data classifying the data used in the valuation by various categories of contributing members, former contributing members, and beneficiaries make up Appendix C. Appendix D is a glossary of actuarial terms used in this report.

3. Assets

In many respects, an actuarial valuation can be regarded as an inventory process. The inventory is taken as of the actuarial valuation date, which for this valuation is January 1, 2025. On that date, the assets available for the payment of benefits are appraised. These assets are compared with the actuarial liabilities. The actuarial process thus leads to a method of determining what contributions by members and the employers, combined with the current assets, are needed to pay the expected benefits.

This section of the report deals with the asset determination. In the next section, the actuarial liabilities will be discussed. Section 5 will deal with the process for determining required contributions, based on the relationship between the assets and the actuarial liabilities.

Financial Exhibits

Table 2 shows the calculation of the Actuarial Value of Assets as of January 1, 2025. Note that a net loss is currently being deferred. This means that, if the System earns 6.75% in 2025 and beyond, the AVA will experience an actuarial loss over upcoming years as the remaining portions of deferred asset losses are recognized. In both the Executive Summary and Section 8 of this report, we discuss projections of the minimum actuarially required contribution rates resulting from this projected actuarial loss on the AVA.

Tables 3 and 4 summarize the financial resources of the System as of January 1, 2025 on a market-value basis. Table 3 shows the Market Value of Assets as of January 1, 2025 and January 1, 2024. Table 4 shows the changes in the Market Value of Assets during the year ending January 1, 2024 and the year ending January 1, 2025.

Tables 3 and 4 are taken directly from data furnished to us by SCERS staff. We have accepted these tables for use in this report without audit, but we have reviewed them for reasonableness and consistency with previous reports.

Actuarial Asset Method

SCERS uses five-year asset smoothing, which recognizes the asset gain or loss occurring in each year evenly over a five-year period. The following graph shows a historical comparison of the actuarial and market assets used for valuation purposes.

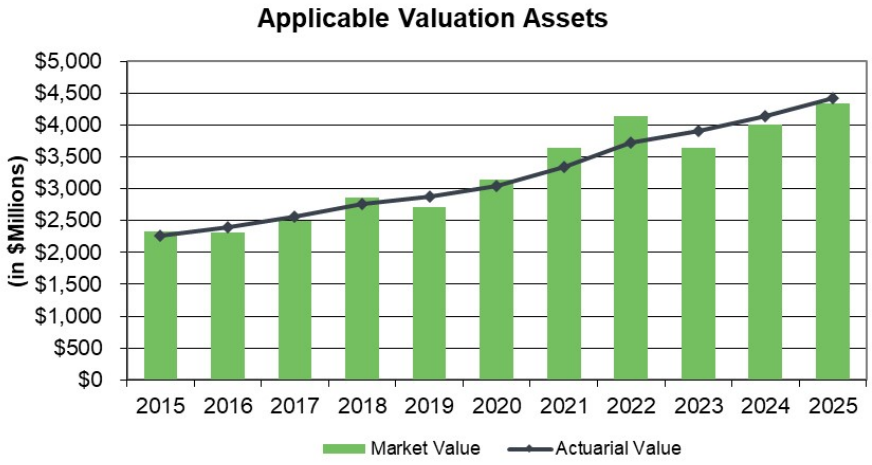


Table 2
Calculation of Actuarial Value of Assets as of January 1, 2025

(All dollar amounts in millions)

Five-Year Asset Smoothing										
Year Ended		Market Value at Beginning of Year	Total Contributions	Benefit Payments Plus Admin. Expenses	Expected Investment Return	Market Value of Assets Expected[1]	Market Value of Assets Actual	Asset Gain/(Loss)	Current Phase Out	Deferred Amount
December 31,	2020	$ 3,149.9	$ 224.3	$ 236.5	$ 227.9	$ 3,365.6	$ 3,641.5	$ 275.9	0%	$ -
December 31,	2021	3,641.5	221.3	250.9	263.0	3,874.9	4,134.8	259.9	20%	52.0
December 31,	2022	4,134.8	228.3	271.3	277.7	4,369.5	3,638.9	(730.6)	40%	(292.2)
December 31,	2023	3,638.9	235.6	290.3	243.8	3,828.0	4,010.6	182.6	60%	109.6
December 31,	2024	4,010.6	280.4	292.4	270.3	4,268.9	4,332.6	63.7	80%	51.0
									Total Deferred at Jan. 1, 2025:	(79.7)
									Market Value of Assets at Jan. 1, 2025:	4,332.6
									Less Total Deferred at Jan. 1, 2025:	(79.7)
									Actuarial Value of Assets at Jan. 1, 2025:	**$ 4,412.3**

1. Expected Market Value of Assets based on the actuarial investment return assumption for the prior year, taking into account actual cash flows during the year.

Table 3
Summary of Plan Net Assets (at Market Value)

	January 1, 2025		January 1, 2024	
	Market Value	Distribution	Market Value	Distribution
Assets				
Cash and cash equivalents	$ 199,823,638	4.6%	$ 330,107,039	8.2%
Receivables:				
Members	4,477,614	0.1%	3,084,186	0.1%
Employer	6,241,253	0.1%	4,749,591	0.1%
Interest and dividends	9,210,128	0.2%	8,064,596	0.2%
Sales proceeds receivable	156,521,754	3.6%	175,278,372	4.4%
Total receivables	176,450,749	4.1%	191,176,745	4.8%
Investments at fair value:				
Fixed Income	1,130,904,203	26.1%	931,235,500	23.2%
Infrastructure	123,360,047	2.8%	110,575,243	2.8%
Private Equity	523,078,999	12.1%	555,227,186	13.8%
Public Equity	2,000,765,282	46.2%	1,794,772,074	44.8%
Real Estate	421,792,881	9.7%	441,498,952	11.0%
Total investments	4,199,901,412	96.9%	3,833,308,955	95.6%
Securities lending collateral	6,619,943	0.2%	4,975,758	0.1%
Prepaid Expenses	141,652	0.0%	528,774	0.0%
Total assets	4,582,937,394	105.8%	4,360,097,271	108.7%
Liabilities				
Pensions payable and other	5,080,948	-0.1%	5,236,311	-0.1%
Obligations under securities lending	6,585,880	-0.2%	4,954,916	-0.1%
Investment commitments payable	238,638,384	-5.5%	339,347,463	-8.5%
Total liabilities	250,305,212	-5.8%	349,538,690	-8.7%
Fiduciary net position restricted for pension benefits	**$ 4,332,632,182**	**100.0%**	**$ 4,010,558,581**	**100.0%**

Note: Numbers shown may not sum to totals due to rounding.

Table 4
Summary of Changes in Plan Net Assets (at Market Value)

	January 1, 2025 Market Value	January 1, 2024 Market Value
Additions		
Contributions:		
Employer	$ 177,128,113	$ 150,422,765
Member	103,298,388	85,199,264
Total contributions	280,426,501	235,622,029
Investment activities:		
Net investment income (loss)		
Net change in fair value of investments	277,358,672	366,184,718
Interest	43,013,467	40,561,497
Dividends	17,734,102	17,630,680
Other investment income	15,575,600	18,429,322
Investment activity expenses	(19,726,583)	(16,804,963)
Net investment income (loss)	333,955,258	426,001,254
Securities lending activities:		
Securities lending income	404,028	289,389
Borrowing rebates	(318,054)	65,400
Total securities lending income	85,974	354,789
Securities lending management fees	(21,483)	(88,690)
Net income from securities lending	64,491	266,099
Net income (loss) from investment activities	334,019,749	426,267,353
Total additions	614,446,250	661,889,382
Deductions		
Benefits	258,768,672	249,139,648
Refunds of contributions	25,620,930	32,706,454
Administrative expenses	7,983,047	8,422,421
Total deductions	292,372,649	290,268,523
Net increase/(decrease)	322,073,601	371,620,859
Fiduciary net position restricted for pension benefits		
Beginning of year	4,010,558,581	3,638,937,722
End of year	**$ 4,332,632,182**	**$ 4,010,558,581**

4. Actuarial Liabilities

Actuarial Present Value of Future Benefits

In the previous section, an actuarial valuation was related to an inventory process and an analysis was given of the inventory of assets of the System as of the valuation date, January 1, 2025. In this section, the discussion will focus on the commitments of the System, which will be referred to as its actuarial liabilities (or actuarial value of future benefits).

In an active system, the present value of future actuarial liabilities will generally exceed the actuarial assets. This is usually expected in all but a fully closed down fund, where no further contributions of any sort are anticipated. This shortfall has to be provided for by future contributions. The funding method for the System sets out a schedule of future contributions that will deal with any deficiency in an orderly fashion. The determination of the level of future contributions needed is discussed in the next section (Section 5) of this report.

Table 5 contains an analysis of the actuarial present value of all future benefits for contributing members, former contributing members, and beneficiaries. The analysis is given by the type of benefit.

The actuarial liabilities summarized in Table 5 include the actuarial present value of all future benefits expected to be paid with respect to each member. For an active member, this value includes a measure of both benefits already earned and future benefits to be earned. Thus, for all current members, active and retired, the value extends over benefits earnable and payable for the rest of their lives and, if an optional benefit is chosen, for the lives of their surviving beneficiaries.

The actuarial assumptions used to determine the liabilities for the January 1, 2025 funding valuation are based on the results of the 2022 Investigation of Experience Report. These assumptions were adopted by the Board effective with the January 1, 2022 Actuarial Valuation. See Appendix A of this report for details.

Actuarial Cost Method

The method used to determine how the actuarial cost for an individual (or for the System as a whole) is allocated to past and future years is referred to as the actuarial cost method. For this valuation, the individual entry age normal cost (EANC) method has been used.

Under this method, the actuarial liabilities discussed above are allocated into two primary calculation components:

1. A normal cost
2. An actuarial accrued liability

The normal cost under the EANC method is developed so that benefits are allocated as a level percentage of payroll for each member, from the member's membership date to the member's termination date. One key feature of the EANC method is that normal cost rates for a plan tend to be stable from year to year (assuming no change in assumptions or benefit provisions) because most members' entry age cost percentages do not change materially from year to year, and because the population typically does not change considerably from year to year.

In the case of SCERS, we project the normal cost rate for the System to gradually decrease over time, if the assumptions do not change, as Plan 2 members with lower benefit levels than Plan 1 members (and therefore lower normal cost rates) become a greater portion of the population. The normal cost rates as a percentage of payroll for the current and prior valuation are shown by benefit type and SCERS plan in Table 6. These normal cost contribution rates are intended to be contributed in each year in order to fund the ongoing cost of benefit accruals.

The annual normal cost rate may be considered the ongoing cost of benefit accruals for any given plan year. When the present value of all future normal costs is subtracted from the present value of total benefits, the result is the actuarial accrued liability (AAL). This can be thought of as the current value of all past normal costs, or the amount that would be in the fund if all prior actuarial assumptions had been exactly met. The AAL represents the portion of the present value of total benefits that the cost method allocates to past service.

To the extent that this AAL exceeds plan assets, an Unfunded Actuarial Accrued Liability (UAAL) exists. If the assets exceed the AAL, the difference can be referred to as a Funding Reserve. Table 7 calculates the UAAL, if any, for the current and prior valuations. Note that currently, a UAAL exists for SCERS. The payoff of this UAAL is discussed in more detail in Section 5 (Employer Contributions) of this report.

Table 5
Actuarial Present Value of Future Benefits (PVFB)

(All dollar amounts in millions)

	January 1, 2025			January 1, 2024
	Plan 1	Plan 2	Total	Total
A. Active Members				
Service Retirement	$ 3,017.0	$ 841.8	$ 3,858.8	$ 3,535.9
Vested Retirement	58.5	50.2	108.6	104.2
Disability Retirement	3.2	3.4	6.6	6.0
Survivor Benefits	32.2	8.5	40.7	38.1
Refund of Member Contributions	15.3	32.5	47.7	44.5
Total	3,126.2	936.3	4,062.5	3,728.7
B. Inactive Members and Annuitants				
Service Retirement	2,740.5	2.5	2,743.0	2,660.9
Disability Retirement	11.2	-	11.2	10.8
Beneficiaries	173.2	-	173.2	162.2
Inactive Members	310.3	15.8	326.1	312.3
Total	3,235.1	18.3	3,253.4	3,146.2
C. Grand Total PVFB	**6,361.3**	**954.6**	**7,315.9**	**6,874.9**

Table 6
Normal Cost Contribution Rates as Percentages of Salary

	January 1, 2025			January 1, 2024
	Plan 1	Plan 2	Total	Total
Service Retirement	13.04	11.06	12.18 %	12.35 %
Vested Retirement	1.62	0.68	1.21	1.25
Disability Retirement	0.04	0.04	0.04	0.04
Survivor Benefits	0.21	0.11	0.17	0.17
Refund of Member Contributions	0.99	0.66	0.85	0.86
Administrative Expenses	0.80	0.80	0.80	0.80
Total	**16.70**	**13.35**	**15.25 %**	**15.47 %**

Table 7
Unfunded Actuarial Accrued Liability (UAAL)

(All dollar amounts in millions)

		January 1, 2025	January 1, 2024
A.	Actuarial present value of all future benefits for present and former members and their survivors (Table 5)	$ 7,315.9	$ 6,874.9
B.	Less actuarial present value of total future normal costs for present members	1,511.0	1,404.8
C.	Actuarial accrued liability[1] [A - B]	5,805.0	5,470.0
D.	Less actuarial value of assets available for benefits (Table 2)	4,412.3	4,143.7
E.	Unfunded actuarial accrued liability (Funding Excess, if negative) [C - D]	$ 1,392.7	$ 1,326.3
F.	Funding Ratio [D ÷ C]	76.0%	75.8%

1. The actuarial accrued liability as of January 1, 2026 is projected to be $6,064.7 million.

5. Employer Contributions

As shown in Table 7 in the previous section of this report, the AAL exceeds the current Actuarial Value of Assets. In other words, as of the January 1, 2025 valuation, a UAAL exists for SCERS.

Because a UAAL exists, the total (member + employer) actuarially required contribution rate will consist of two components:

1. The normal cost contribution rate as of January 1, 2025
2. An amortization payment intended to pay off the UAAL in accordance with the SCERS funding policy

Funding

The current SCERS funding policy was updated by a Seattle City Council resolution in August 2013. The funding policy specifies that the UAAL will be amortized as a level percentage of payroll over a closed 30-year period as of the January 1, 2013 Actuarial Valuation. This means that, for the January 1, 2025 valuation, the amortization contribution rate must be projected to pay off the current UAAL over an 18-year period.

Actuarial Gains and Losses

When experience is different from actuarial expectation, an actuarial gain or loss occurs. Ongoing actuarial gains and losses decrease and increase the UAAL. Section 7 of this report illustrates the historical actuarial gains and losses on the UAAL by source.

Amortization of UAAL

Table 8 details the components of the total actuarially required contribution rate of 23.78% by breaking it into the necessary funding components: normal cost and amortization of UAAL. It then illustrates the split between member and employer contribution rates, assuming that member contributions are allocated entirely toward paying the ongoing normal cost of benefits. Table 9 details the components of the total actuarially required contribution rate by Plan.

As of the January 1, 2025 valuation, the employer actuarial contribution rate is has decreased to 15.06% beginning January 1, 2026.

The total contribution rate of 24.00% determined in the 2024 valuation was calculated in order to amortize the January 1, 2024 UAAL over a 19-year period; however, this rate is not projected to perfectly amortize the January 1, 2025 UAAL over 18 years as experience did not exactly match the assumptions. Table 10 details the expected amortization of the UAAL over the 18-year closed period beginning January 1, 2025.

The total contribution rate can be immediately (i.e., as of the beginning of the next calendar year) decreased from 24.00% of pay to 23.78% of pay to be projected to amortize the UAAL over the scheduled 18 years from January 1, 2025. Because this figure is based on an Actuarial Value of Assets that is currently deferring a net loss, this 23.78% is projected to increase over the next couple years if no other actuarial asset gains or losses after January 1, 2025 were to occur and no assumptions changes are made.

In Section 8 of this report, we have included a five-year projection of the actuarially required contribution, including optimistic and pessimistic investment return scenarios.

Table 8
Contribution Rates as Percentages of Salary

		Actuarially Required Contribution Beginning	
		January 1, 2026	January 1, 2025
A.	Total normal cost rate	15.25 %	15.47 %
B.	UAAL amortization rate	8.53	8.53
C.	Actuarially required contribution rate	23.78 %	24.00 %
D.	Member contribution rate	8.72	8.83
E.	Allocation of employer contribution rate[1]		
	Normal cost	6.53 %	6.64 %
	Amortization payment	8.53	8.53
	Total employer contribution rate	15.06 %	15.17 %

1. If member contributions are all allocated to paying the normal cost.

Table 9
Contribution Rates as Percentages of Salary by Plan

	Actuarially Required Contribution January 1, 2026		
	SCERS 1	SCERS 2	Total %
Total normal cost rate	16.70 %	13.35 %	15.25 %
UAAL amortization rate	8.53	8.53	8.53
Actuarially required contribution rate	25.23	21.88	23.78
Member contribution rate	10.03	7.00	8.72
Total employer contribution rate	15.20 %	14.88 %	15.06 %

Table 10
Amortization of Unfunded Actuarial Accrued Liability (UAAL) [1][2]

(All dollar amounts in millions)

Year	Payroll	Total Contribution Rate[3]	Normal Cost Rate	UAAL Rate	UAAL Beginning Balance	UAAL Amortization Payment	UAAL Interest	UAAL Ending Balance
2025	$ 1,182	23.89%	15.25%	8.64%	$ 1,392.7	$ 102.0	$ 90.6	$ 1,381.3
2026	1,237	23.78%	15.25%	8.53%	1,381.3	105.5	89.7	1,365.5
2027	1,282	23.78%	15.25%	8.53%	1,365.5	109.3	88.5	1,344.7
2028	1,328	23.78%	15.25%	8.53%	1,344.7	113.3	87.0	1,318.5
2029	1,376	23.78%	15.25%	8.53%	1,318.5	117.4	85.1	1,286.2
2030	1,426	23.78%	15.25%	8.53%	1,286.2	121.6	82.8	1,247.4
2031	1,477	23.78%	15.25%	8.53%	1,247.4	126.0	80.0	1,201.4
2032	1,530	23.78%	15.25%	8.53%	1,201.4	130.5	76.8	1,147.7
2033	1,585	23.78%	15.25%	8.53%	1,147.7	135.2	73.0	1,085.5
2034	1,642	23.78%	15.25%	8.53%	1,085.5	140.0	68.6	1,014.1
2035	1,701	23.78%	15.25%	8.53%	1,014.1	145.1	63.6	932.7
2036	1,762	23.78%	15.25%	8.53%	932.7	150.3	58.0	840.4
2037	1,826	23.78%	15.25%	8.53%	840.4	155.7	51.6	736.2
2038	1,892	23.78%	15.25%	8.53%	736.2	161.4	44.3	619.2
2039	1,960	23.78%	15.25%	8.53%	619.2	167.2	36.2	488.2
2040	2,031	23.78%	15.25%	8.53%	488.2	173.2	27.2	342.2
2041	2,104	23.78%	15.25%	8.53%	342.2	179.4	17.1	179.9
2042	2,180	23.78%	15.25%	8.53%	179.9	185.9	6.0	(0.0)

1. Amortization shown does not include the projected impact of currently deferred asset gains and losses.

2. Does not reflect the projected impact on normal cost and contribution rate of future Plan 2 members.

3. The total contribution rate in 2025 represents the actual 2025 employer contribution rate of 15.17% plus the estimated 2025 member contribution rate of 8.72% (blended rate based on proportion in Plan 1 and Plan 2). In years 2026 and later, the total contribution rate is equal to the actuarially required contribution rate.

6. Additional Actuarial Information

The schedule of funding progress is shown in Table 11 and compares assets and liabilities over the years. Primarily due to the poor investment returns of 2000 through 2003, as well as the extreme market downturn of 2008, the Plan is not fully funded. Another material factor is the increase in liabilities from the benefit enhancements triggered in 2007 (i.e., 65% Floor COLA and the 1.5% COLA for all current and future retirees and beneficiaries).

The Funding Ratio shown in the schedule of funding progress is one measure of the funding adequacy of the System and is appropriate for assessing the future contributions needed. Other calculations may be necessary for other purposes, such as assessing the sufficiency of current system assets to satisfy the estimated cost of settling the System's accrued benefit obligations.

Table 12 compares the Actuarial Value of Assets to the types of Actuarial Accrued Liabilities, applying them first to active member contributions, then to retirees and beneficiaries, and then the remaining amount to the active members' benefits. This is referred to as the Solvency Test. Although not required under GASB, this test is part of the Annual Comprehensive Financial Report guidelines specified by the Government Finance Officers Association (GFOA).

Table 11
Schedule of Funding Progress

(All dollar amounts in millions)

Actuarial Valuation Date January 1	Actuarial Value of Assets	Actuarial Accrued Liabilities (AAL)	Unfunded Actuarial Accrued Liabilities (UAAL)	Funding Ratio	Covered Payroll[1]	UAAL as a Percentage of Covered Payroll
1996	$ 980.2	$ 1,019.7	$ 39.5	96.1%	$ 310.6	12.7%
1997	1,094.8	1,087.3	(7.5)	100.7	316.9	(2.4)
1998 [2]	1,224.6	1,266.7	42.1	96.7	341.5	12.3
1999	1,375.0	1,326.6	(48.4)	103.6	370.4	(13.1)
2000	1,582.7	1,403.1	(179.6)	112.8	383.6	(46.5)
2002	1,383.7	1,581.4	197.7	87.5	405.1	48.8
2004	1,527.5	1,778.9	251.4	85.9	424.7	59.2
2006	1,791.8	2,017.5	225.8	88.8	447.0	50.5
2008	2,119.4	2,294.6	175.2	92.4	501.9	34.9
2010	1,645.3	2,653.8	1,008.5	62.0	580.9	173.6
2011	2,013.7	2,709.0	695.4	74.3	563.2	123.5
2012	1,954.3	2,859.3	905.0	68.3	557.0	162.5
2013	1,920.1	3,025.3	1,105.2	63.5	567.8	194.6
2014	2,094.3	3,260.1	1,165.8	64.2	597.9	195.0
2015	2,266.7	3,432.6	1,165.9	66.0	630.9	184.8
2016	2,397.1	3,605.1	1,208.0	66.5	641.7	188.3
2017	2,564.1	3,766.4	1,202.3	68.1	708.6	169.7
2018	2,755.2	3,941.8	1,186.6	69.9	733.3	161.8
2019	2,877.4	4,216.7	1,339.3	68.2	779.1	171.9
2020	3,040.7	4,411.1	1,370.4	68.9	785.6	174.4
2021	3,345.8	4,673.1	1,327.3	71.6	876.9	151.4
2022	3,717.2	4,959.0	1,241.8	75.0	865.1	143.5
2023	3,903.1	5,158.0	1,254.9	75.7	901.5	139.2
2024	4,143.7	5,470.0	1,326.3	75.8	946.2	140.2
2025	4,412.3	5,805.0	1,392.7	76.0	1,165.5	119.5

1. Covered Payroll includes prior year compensation paid to all active employees on which contributions are calculated. Covered Payroll differs from the Active Member Valuation Payroll shown in Table 1, which is an annualized compensation of only those members who were active on the actuarial valuation date.

2. Reflects increased COLA benefits adopted by the City Council after the valuation was completed.

Table 12
Solvency Test

(All dollar amounts in millions)

Actuarial Valuation Date January 1	Actuarial Value of Valuation Assets	Actuarial Accrued Liabilities for (A) Active Member Contributions	(B) Inactives, Retirees and Beneficiaries	(C) Active Members (Employer Financed Portion)	(D) Total	Portion of Actuarial Accrued Liabilities Covered by Assets (A)	(B)	(C)	(D)
1996	$ 980.2	$ 294.1	$ 409.3	$ 316.3	$ 1,019.7	100.0%	100.0%	87.5%	96.1%
1997	1,094.8	313.1	449.8	324.4	1,087.3	100.0	100.0	100.0	100.7
1998 [1]	1,224.6	337.3	551.8	377.6	1,266.7	100.0	100.0	88.9	96.7
1999	1,375.0	358.4	577.6	390.6	1,326.6	100.0	100.0	100.0	103.6
2000	1,582.7	385.2	599.4	418.5	1,403.1	100.0	100.0	100.0	112.8
2002	1,383.7	434.3	675.6	471.5	1,581.4	100.0	100.0	58.1	87.5
2004	1,527.5	482.5	758.9	537.5	1,778.9	100.0	100.0	53.2	85.9
2006	1,791.8	539.7	902.2	575.6	2,017.5	100.0	100.0	60.8	88.8
2008	2,119.4	590.1	1,084.9	619.6	2,294.6	100.0	100.0	71.7	92.4
2010	1,645.3	684.7	1,176.4	792.7	2,653.8	100.0	81.7	0.0	62.0
2011	2,013.7	683.7	1,290.9	734.4	2,709.0	100.0	100.0	5.3	74.3
2012	1,954.3	730.9	1,393.7	734.7	2,859.3	100.0	87.8	0.0	68.3
2013	1,920.1	757.3	1,513.4	754.6	3,025.3	100.0	76.8	0.0	63.5
2014	2,094.3	792.4	1,657.0	810.7	3,260.1	100.0	78.6	0.0	64.2
2015	2,266.7	829.7	1,753.5	849.4	3,432.6	100.0	82.0	0.0	66.0
2016	2,397.1	851.2	1,875.1	878.8	3,605.1	100.0	82.4	0.0	66.5
2017	2,564.1	888.1	1,975.1	903.2	3,766.4	100.0	84.9	0.0	68.1
2018	2,755.2	911.0	2,106.4	924.4	3,941.8	100.0	87.6	0.0	69.9
2019	2,877.4	929.0	2,349.3	938.4	4,216.7	100.0	82.9	0.0	68.2
2020	3,040.7	939.9	2,554.6	916.6	4,411.1	100.0	82.2	0.0	68.9
2021	3,345.8	995.9	2,649.0	1,028.2	4,673.1	100.0	88.7	0.0	71.6
2022	3,717.2	1,006.7	2,880.8	1,071.5	4,959.0	100.0	94.1	0.0	75.0
2023	3,903.1	992.0	3,051.0	1,115.0	5,158.0	100.0	95.4	0.0	75.7
2024	4,143.7	1,031.3	3,146.2	1,292.5	5,470.0	100.0	98.9	0.0	75.8
2025	4,412.3	1,096.5	3,253.4	1,455.1	5,805.0	100.0	100.0	4.3	76.0

1. Reflects increased COLA benefits adopted by the City Council after the valuation was completed.

7. Actuarial Gains or Losses

An analysis of actuarial gains or losses is performed in conjunction with the actuarial valuation. The results of our analysis of the financial experience of the System in the three most recent actuarial valuations are presented in Table 13. Each gain or loss shown represents our estimate of how much the given type of experience caused the UAAL to change in the period since the previous actuarial valuation.

Gains and losses due to demographic sources are approximate. Demographic experience is analyzed in greater detail in our periodic assumption studies.

Table 13
Analysis of Actuarial Gains or Losses [1]

(All dollar amounts in millions)

	Gain/(Loss) For Period		
	2024	2023	2022
Investment Income Investment income on AVA was greater (less) than assumed.	$ 1.3	$ 33.6	$ (20.6)
Pay Increases Pay increases were less (greater) than expected.	(120.0)	(113.3)	(33.1)
Age and Service Retirements Members retired at older (younger) ages or with less (greater) final average pay than expected.	(7.4)	(5.0)	(7.5)
Disability Retirements Disability claims were less (greater) than expected.	0.1	(0.1)	0.2
Death-in-Service Benefits Survivor claims were less (greater) than expected.	8.0	2.8	2.8
Withdrawal from Employment More (less) reserves were released by withdrawals than expected.	9.8	(15.2)	10.9
Death after Retirement Retirees died younger (lived longer) than expected.	(2.0)	4.4	12.7
Total Gain or (Loss) during Period from Financial Experience	$ (110.2)	$ (92.8)	$ (34.6)
Non-Recurring Items:			
Changes in actuarial assumptions and plan amendments caused a gain (loss).	-	-	-
Data revisions	-	-	-
Composite Gain (Loss) During Period	$ (110.2)	$ (92.8)	$ (34.6)

1. Effects related to losses are shown in parentheses. Numerical results are expressed as a decrease (increase) in the UAAL.

8. Contribution Rate Projections and Increases

This section of the January 1, 2025 Actuarial Valuation is devoted to a detailed discussion of the contribution rates currently needed, and projected to be needed, in order to effectively fund the System.

This section illustrates two key points:

1. As mentioned throughout this report, the current AVA is deferring a net loss. As a result, if no actuarial asset gains or losses were to occur over the next several years (i.e., the market return equals the return assumption of 6.75%), the employer actuarial contribution rate would be projected to increase as the remaining deferred losses are fully phased in.
2. Based on this valuation, the total (member and employer) actuarial contribution rate is calculated to be 23.78% of payroll beginning January 1, 2026. Of this, 15.06% is the employer portion. The actual contribution rate needed will vary in the future. We have shown projections to roughly quantify the potential impact of good and bad investment experience.

Projection of Actuarially Required Contribution Rate

We have performed a five-year projection of the employer actuarially required contribution rate under three different scenarios:

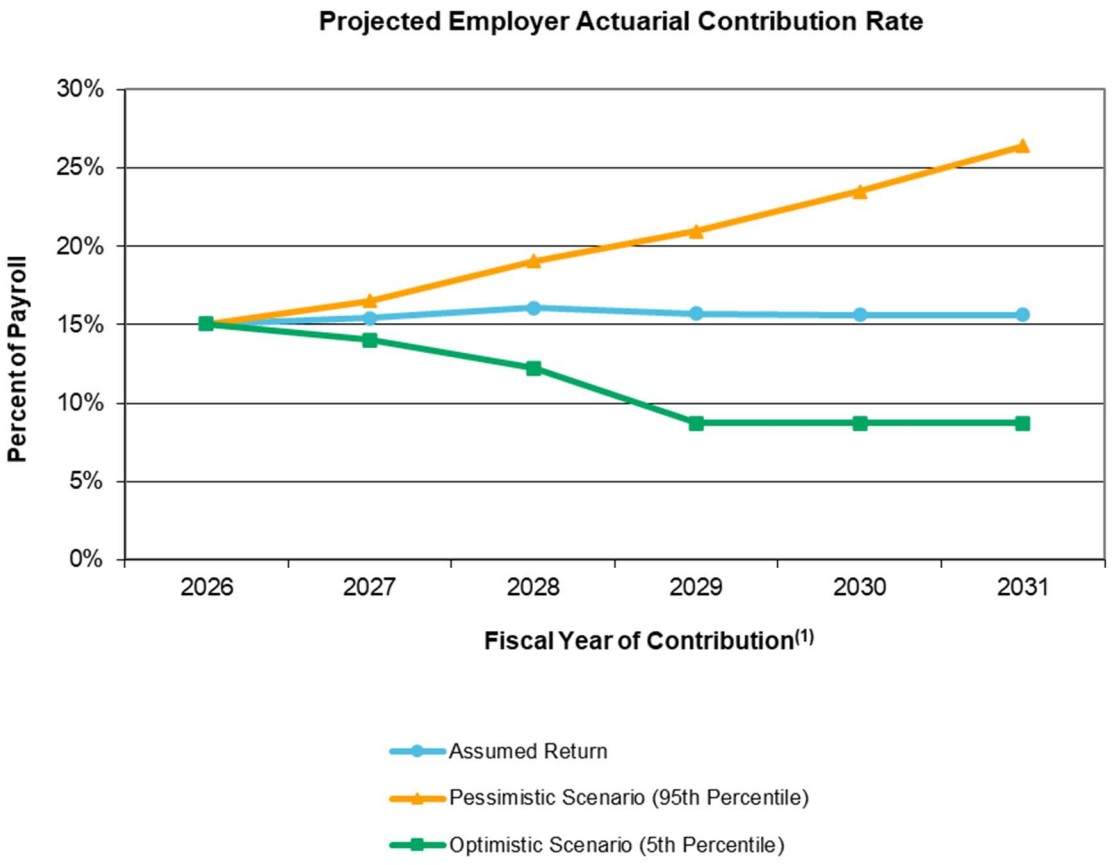
1. Assuming that the investment return assumption of 6.75% is met in each future year.
2. Assuming that the assets return at the 5th percentile.
3. Assuming that the assets return at the 95th percentile.

The result is effectively a 90% confidence interval (based on asset returns) of the projected employer contribution rates in these years. Note that in each scenario, all other actuarial assumptions are assumed to be met.

The projections assume the employer contributes the actuarially required contribution rate each year in the future. This rate is based on an 18-year closed amortization period as of January 1, 2025 and includes a 0.25% population growth assumption. Future returns at the 5th and 95th percentile are based on Milliman's capital market assumptions and SCERS' target asset allocation as of January 1, 2025.

Table 14 provides the results of these projections.

Table 14
Projected Total Contribution Rates



Projected Employer Actuarial Contribution Rate			
Contribution Year[1]	If Asset Return at 95th Percentile	Assuming 6.75% Future Returns	If Asset Return at 5th Percentile
2026	15.06%	15.06%	15.06%
2027	16.53%	15.41%	14.03%
2028	19.07%	16.08%	12.22%
2029	20.98%	15.71%	8.72%
2030	23.49%	15.61%	8.72%
2031	26.39%	15.61%	8.72%

1. Contribution year lags calculation year by one year. For example: Contribution Year 2026 is based on the 2025 valuation results, amortized over 18 years beginning in 2025, if the increase takes place in 2026.

Assumed Returns for Projection

The projection in Table 14 uses the 5th and 95th percentile returns based on SCERS' target asset allocation and Milliman's January 1, 2025 capital market assumptions. These percentile returns vary by year. The one-year return is the return for 2025 and is at the 5th or 95th percentile rates. The two-year return is calculated such that combining the 2025 and 2026 returns results in an average equal to the two-year return at the 5th or 95th percentile rate. For example, the 5th percentile return for the two-year period of 23.1% is based on a 2025 return of 30.6% (the one-year 5th percentile return) and a 2026 return of 16.0%, which average to a 23.1% annual return.

The percentile rates assumed for this analysis are shown in the table below:

Compounded Average Return for Period	Percentile	
	95th	*5th*
1-Year Period	*-12.6%*	*30.6%*
2-Year Period	*-7.3%*	*23.1%*
3-Year Period	*-4.9%*	*20.0%*
4-Year Period	*-3.4%*	*18.1%*
5-Year Period	*-2.4%*	*16.9%*

9. Projection of Benefit Payments and Contribution Dollars

Projection of Benefit Payments and Contribution Dollars

This section of the January 1, 2025 Actuarial Valuation illustrates projected SCERS benefit payments and dollar contributions over a 10-year period following the actuarial valuation.

These projections assume all actuarial assumptions, including 6.75% investment returns (on a market basis) in each future year, are met in the future.

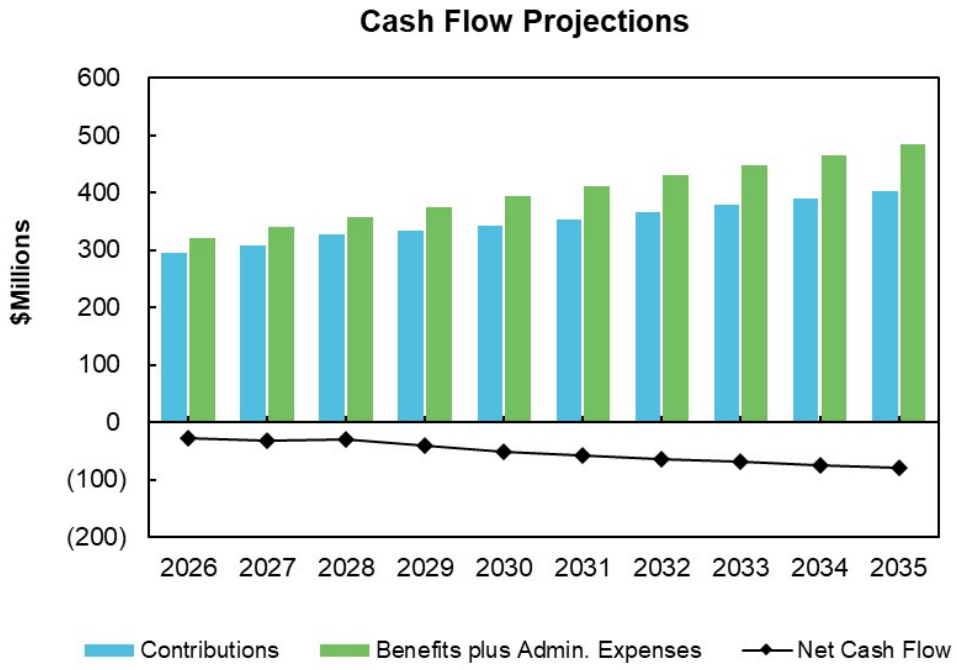
The projection of contribution dollars makes the following three additional key assumptions:

1. Valuation payroll is assumed to grow with both wage inflation of 3.35% and annual population growth of 0.25% (per current SCERS assumptions). Note that 2025-2026 payroll includes Annual Wage Increases and Market Rate adjustments.
2. The City is assumed to make the employer actuarially required contribution rate calculated in each projection year.
3. Future recognition of currently deferred asset gains or losses is reflected in the projection.

Table 15 shows the results of these projections.

Table 15
10-Year Projection of Benefit Payments and Contributions [1]

Year	Projected Payroll	Projected Admin. Expenses	Projected Benefit Payments	Projected Total Cash Outflow	Projected Total Contributions	Projected Net Cash Flow
2026	$ 1,236.6	$ 9.9	$ 312.0	$ 321.9	$ 294.1	$ (27.8)
2027	1,281.2	10.2	330.2	340.4	308.3	(32.2)
2028	1,327.4	10.6	346.9	357.5	327.3	(30.2)
2029	1,375.3	11.0	363.9	374.9	333.1	(41.8)
2030	1,425.0	11.4	381.9	393.3	342.7	(50.6)
2031	1,476.4	11.8	399.9	411.7	354.0	(57.7)
2032	1,529.7	12.2	417.4	429.6	365.9	(63.7)
2033	1,584.8	12.7	435.1	447.8	378.0	(69.8)
2034	1,642.0	13.1	452.9	466.0	390.5	(75.6)
2035	1,701.3	13.6	469.8	483.4	403.4	(80.0)



1. Benefit payments do not include administrative expenses. Contributions include employer and member contributions.

10. Risk Disclosure

The purpose of this section is to identify, assess, and provide illustrations of risks that are significant to the System, and in some cases to the System's participants.

As plans mature, they accumulate larger pools of assets and liabilities. This increases the potential risk to plan funding and the finances of those who are responsible for plan funding. As shown by the Asset Volatility Ratio discussed later in this section, the System's assets are now much larger compared to payroll than in the past. The Asset Volatility Ratio example shows that because of this a 10% investment loss on assets today costs almost twice as much, when measured as a percent of payroll, as a 10% investment loss would have cost in 1986. Since pension plans make long-term promises and rely on long-term funding, it is important to consider how mature the plan is today, and how mature it may become in the future.

The results of any actuarial valuation are based on one set of assumptions. Although we believe the current assumptions for the System provide a reasonable estimate of future expectations, it is almost certain that future experience will differ from the assumptions to some extent. It is therefore important to consider the potential impacts of these potential differences between assumptions and experience when making decisions that may affect the future financial health of the System or the System's participants.

Actuarial Standard of Practice No. 51 (ASOP 51) addresses these issues by providing actuaries with guidance for assessing and disclosing the risk associated with measuring pension liabilities and the determination of pension plan contributions. Specifically, it directs the actuary to:

- Identify risks that may be significant to the plan.
- Assess the risks identified as significant to the plan. The assessment does not need to include numerical calculations.
- Disclose plan maturity measures and historical information that are significant to understanding the plan's risks.

This section uses the framework of ASOP 51 to communicate important information about significant risks to the System, the System's maturity, and relevant historical plan data.

Identification of Risks

There are a number of factors that affect future valuation results. To the extent actual experience for these factors varies from the assumptions, this will likely cause either increases or decreases in the plan's future funding level and calculated contribution rates. Examples of factors that can have a significant impact on valuation results are:

- Investment return, as this will impact the level of assets available to pay benefits
- Payroll variation, as this will impact the ability to finance unfunded amounts as a percent of future pay
- Salary variation, as this will impact the size of benefits members receive as a percent of final earnings
- Mortality, as this will impact how long retirees receive benefits
- Service retirement, as this will impact how long retirees receive benefits, the size of retiree benefits, the amount of time to receive employer and employee contributions, and the amount of time for investment earnings to accumulate on those contributions
- Termination (members leaving active employment for reasons other than death, disability, or service retirement), as this will impact the size of those members' benefits

Investment Return

Of the factors listed, we believe the factor with the greatest potential risk is future investment returns. For this reason, we studied this assumption in several scenarios in Section 8 of this report.

In Table 14, we performed a five-year projection of the employer actuarially required contribution rate under three different scenarios:

1. Assuming that the investment return assumption of 6.75% is met in each future year.
2. Assuming that the assets return at the 5th percentile.
3. Assuming that the assets return at the 95th percentile.

Low-Default-Risk Obligation Measure (LDROM)

The Plan's target asset allocation reflects a balance of risk and return. Investing in asset classes with a low-default-risk is expected to reduce future investment returns and therefore increase future contributions. However, the lower risk levels would be expected to result in lower year-to-year volatility in the Actuarially Determined Total Contribution (ADC) rate and Funding Ratio. A portfolio with a lower default risk might provide more benefit security for members. Conversely, investing in asset classes with higher expected returns and volatility is expected to decrease future contributions, but would increase the year-to-year volatility of the ADC and Funding Ratio and could provide less benefit security for members.

Effective for measurement dates February 15, 2023 or later, Actuarial Standard of Practice No. 4 (ASOP 4) states that when performing a funding valuation, the actuary should calculate and disclose a low-default-risk obligation measure (LDROM) of the benefits earned or accrued under the actuarial cost method used as of the measurement date. The actuary should select a discount rate derived from low-default-risk fixed income securities. We have used 30-year U.S. Treasury Bonds. Based on Section 3.11.a. of ASOP 4, we believe this meets the requirements for a discount rate for the LDROM. The 30-Year U.S. Treasury Rate was 4.78% as of December 31, 2024.

The following is a summary of the results comparing the LDROM to the Plan's current assumption.

	30-Year U.S. Treasury Rate[1]	Plan's Current Assumption
Discount Rate	4.78%	6.75%
Actuarial Accrued Liability as of December 31, 2024	$7,411.0M	$5,805.0M
Funding Ratio – Market Value of Assets	58.5%	74.6%

1. Calculated using the same actuarial assumptions and methods that were used for this valuation, except for the discount rate.

Demographic Experience

While future investment returns will likely cause the greatest deviation from expected experience, there are many other assumptions made in an actuarial valuation. For these assumptions, differences between actual and assumed experience will also result in actuarial gains and losses. Table 13 in Section 7 of this report provides a look at the impact in recent years of actual experience deviating from assumed.

Maturity Measures and Historical Information

The remainder of this section contains historical information concerning the System's Asset Volatility Ratio and Liability Volatility Ratio. Additional historical information can be found in Section 6 (Additional Actuarial Information). Some of the historical information in Section 6 also provides measures of the System's maturity including breakdowns of the System's liability and membership between active and inactive members.

Asset Volatility Ratios and Liability Volatility Ratios

The magnitude of any contribution rate increase or decrease is affected by the System's maturity level. As systems mature, they accumulate larger pools of assets. Gains and losses on these larger pools of assets create more volatility in the contributions needed to fund the System.

One indicator of this potential volatility is the Asset Volatility Ratio (AVR), which is equal to the Market Value of Assets divided by the total payroll. As assets grow compared to payroll, any percentage gain or loss on those assets will be larger compared to payroll. This causes any resulting changes in required contributions from those gains or losses to also be larger when measured as a percent of payroll. Therefore, plans with a high AVR will be subject to a greater level of volatility in required contributions. The AVR is a current measure since it is based on the current level of assets and will vary from year to year.

The current AVR for SCERS is 3.7. The AVR grew from 2.2 in 1986 to a high of 4.8 in 2022. The AVR has somewhat leveled off recently although there was a large decrease as of January 1, 2023 due to a decrease in the market value of assets in 2022 and decreases the past two years due to increases in payroll. We expect the AVR will grow in the future as contributions are made to pay off the UAAL that will increase asset growth. The following table provides an illustration of how increases in the AVR increase the volatility of contributions from asset gains and losses.

A return of negative 3.25% is a 10% loss for SCERS because it is 10% below the 6.75% investment return assumption. As shown in the table, if a return of negative 3.25% is not offset by future gains and the AVR is 2.2, the loss is expected to increase contributions by 1.6% of pay if amortized over 18 years, the current amortization period. However, with the current AVR of 3.7, the same return is expected to increase contributions by 2.8% of payroll if amortized over 18 years.

Approximate eventual increases in contributions for an asset return 10% below the assumption if not offset by future gains

Asset Volatility Ratio = Assets / Payroll	18-Year Amortization
2.2 (1986)	1.6% of payroll
3.7 (current)	2.8% of payroll

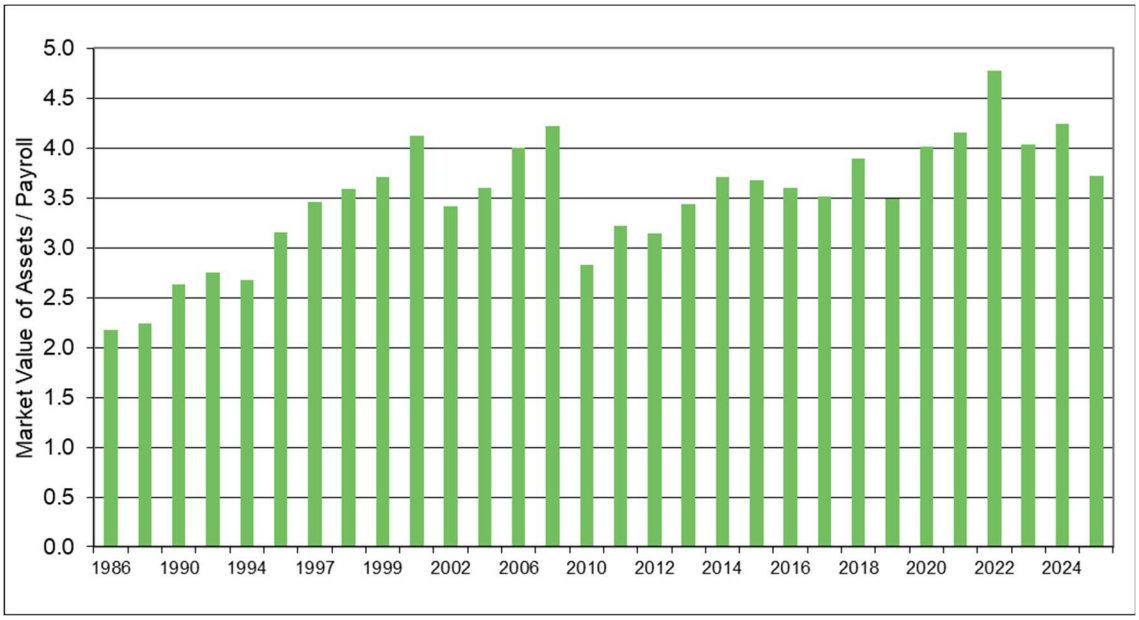
The graph at the top of Table 16 shows how the System matured during the last 30 years, as represented by the increasing AVR.

Another measure of a system's maturity is the Liability Volatility Ratio (LVR), which is equal to the AAL divided by the total payroll. This ratio provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. In addition, this ratio indicates the potential contribution volatility due to liability experience (gains and losses) and liability re-measurements (assumption changes). For SCERS, the current LVR is 5.0.

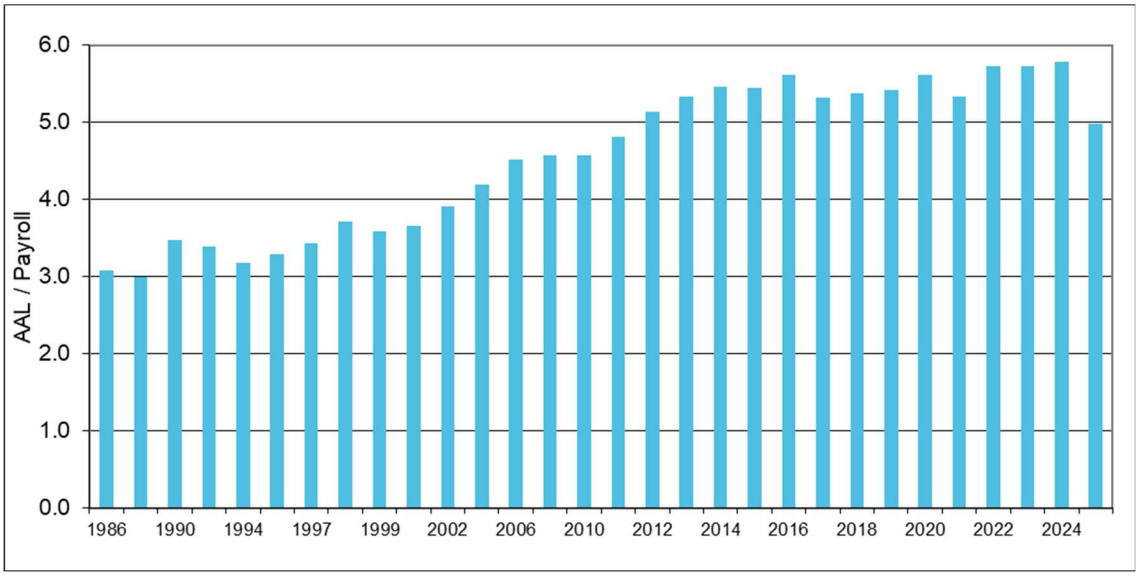
The graph at the bottom of Table 16 shows the historical LVR since 1986. It is a similar pattern to the Asset Volatility Ratio, except the increase is more gradual and the year-to-year variance is significantly less.

Table 16
Asset and Liability Volatility Ratios

Asset Volatility Ratios (Market Value of Assets / Payroll)



Liability Volatility Ratios (Actuarial Accrued Liability / Payroll)



Appendix A Actuarial Procedures and Assumptions

This section of the report describes the actuarial procedures and assumptions used in this valuation. The assumptions used in this valuation were adopted by the SCERS Board at its March 2022 meeting. They are based on Milliman's Investigation of Experience for the period January 1, 2018 through December 31, 2021. The assumptions are reviewed annually for continued compliance with relevant actuarial standards of practice. In particular, we have relied on the expected return determined by NEPC, SCERS' investment consultant, in assessing the compliance of the investment return assumption. Further discussion and the rationale for the assumptions are shown in that report.

The actuarial assumptions used in the valuation are intended to estimate the future experience of the members of the System and of the System itself in areas that affect the projected benefit flow and anticipated investment earnings. Any variations in future experience from that expected from these assumptions will result in corresponding changes in the estimated costs of the System's benefits. Table A-1 summarizes the actuarial assumptions.

Table A-2 presents expected annual salary increases for various years of service. Tables A-3 through A-6 show rates of decrement for service retirement, disability, mortality, and other terminations of employment. Table A-7 shows the probabilities of refund upon termination.

Actuarial Cost Method

The actuarial valuation was prepared using the entry age actuarial cost method. Under this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit. The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the sum of (a) the actuarial value of the assets, and (b) the actuarial present value of future normal costs is called the unfunded actuarial accrued liability or UAAL. The UAAL is amortized as a level percentage of the projected salaries of present and future members of the System.

Records and Data

The data used in the valuation consist of financial information; records of age, sex, service, salary, contribution rates, and account balances of contributing members; and records of age, sex, and amount of benefit for retired members and beneficiaries. All of the data were supplied by the System and are accepted for valuation purposes without audit.

Replacement of Terminated Members

The ages at entry and distribution by sex of future members are assumed to average the same as those of the present members they replace. If the number of active members should increase, it is further assumed that the average entry age of the larger group will be the same, from an actuarial standpoint, as that of the present group. Under these assumptions, the normal cost rates for active members will not vary with the termination of present members.

Employer Contributions

The employer actuarial contribution rate is determined as of the prior year's valuation such that the combined member and employer contribution rate is sufficient to amortize the UAAL over a closed 30-year period beginning January 1, 2013. The amortization payment is based on a level percent of pay.

Administrative Expense

The annual contribution assumed to be necessary to meet general administrative expenses of the System, excluding investment expenses, is 0.80% of members' salaries. This figure is included in the calculation of the normal cost rate.

Valuation of Assets

The assets are valued using a five-year smoothing method based on the difference between the expected market value and the actual market value of the assets in each year. The expected market value is the prior year's market value increased with the net increase in the cash flow, all increased with interest during the past fiscal year at the expected investment return rate assumption.

Investment Earnings

The annual rate of investment earnings of the assets of the System is assumed to be 6.75%. This rate is compounded annually and is net of investment expenses.

Postretirement Benefit Increases

Postretirement benefit increases include:

- Automatic 1.5% Annual COLA – This benefit applies to all members.
- 65% Restoration of Purchasing Power (ROPP) – The member's benefit is the greater of 65% of the annual initial benefit adjusted for CPI or their applicable benefit. This minimum benefit is available to all retirees and beneficiaries. The financial impact of the ROPP benefit is valued assuming an annual price inflation rate of 2.60%. To account for uncertainty in the value of this benefit, the benefit is assumed to begin 31 years after retirement, which is earlier than it is projected to begin based on 2.60% inflation and a 1.5% annual COLA.

Additional contingent COLA increases that were adopted in 2001, but not effective until the System reaches at least a 100% Funding Ratio, are not included in the valuation results.

Valuation Salary

The salary for the year immediately preceding the valuation year is equal to the member's earnings for that year with the following adjustments:

- Annualized pay for members who entered in the year preceding the valuation year.
- For members on leave, the salary is calculated as the hourly pay rate multiplied by 2,088 hours.

Future Salaries

Table A-2 illustrates the rates of future salary increases assumed for the purpose of the valuation. Increases are assumed to occur at the beginning of the year. In addition to increases in salary due to promotions and longevity, this scale includes an assumed 3.35% per annum rate of increase in the general wage level of the membership.

Service Retirement

Table A-3 shows the annual assumed rates of retirement among members eligible for service retirement or reduced retirement. Separate rates are also used during the first year a member is eligible for service retirement.

Disability

The rates of disability used in this valuation are illustrated in Table A-4. It is assumed that one-third of all disabilities are duty-related and two-thirds occur while off duty. Only the duty-related assumption is used prior to 10 years of service.

Mortality

The mortality rates used in this valuation are illustrated in Table A-5. A written description of each table used is included in Table A-1.

Other Terminations of Employment

The rates of assumed future withdrawal from active service for reasons other than death, disability, or retirement are shown for representative ages in Table A-6. Note that this assumption only applies to members who terminate and are not yet eligible for retirement.

Probability of Refund

Terminating members may forfeit a vested right to a deferred benefit if they elect a refund of their accumulated contributions. Table A-7 gives the assumed probability, at selected ages, that a terminating member will elect to receive a refund of accumulated contributions instead of a deferred benefit.

If a member terminates with more than 20 years of service, there is assumed to be a 10% probability that the member will elect a refund.

Note that the probability of refund assumption only applies to members who terminate with a vested benefit and are not yet eligible for retirement.

Interest on Member Contributions

For member contributions made on or after January 1, 2012, an annual interest credit is determined which may vary from year to year. This rate is based on the prior 12 months' average yield on 30-year U.S. Treasury Bonds, with a maximum credit interest rate equal to 5.75%. Note that, for member contributions made prior to this date, a flat 5.75% annual interest credit applies (which is the rate that was previously was adopted by the Board). The current assumption for interest crediting for member contributions made on or after January 1, 2012 is 3.85%, compounded annually.

Portability

The cost of portability with other public retirement systems is reflected in this valuation by adjusting the compensation used to value current and future deferred vested members by one year of wage growth plus merit (3.35% + 0.50% = 3.85%).

Probability of Marriage

60% of active members are assumed to be married or have a registered domestic partner.

Commencement for Terminated Vested Members

Vested members who terminate but elect to leave their contributions in the System are assumed to commence receiving benefits at age 62.

Table A-1
Summary of Valuation Assumptions

January 1, 2025

Economic Assumptions		
Price inflation	2.60	%
General wage increases	3.35	
Investment return	6.75	
Increase in membership	0.25	
Interest on member accounts	5.75/3.85 [1]	

Demographic Assumptions	
Salary increases due to promotion and longevity	Table A-2
Retirement	Table A-3
Disability	Table A-4
Mortality[2] among contributing members	Table A-5
Males: PubG-2010 Employee Table for Males, adjusted by 95%	
Females: PubG-2010 Employee Table for Females, adjusted by 95%	
Mortality[2] among service retired members and beneficiaries	Table A-5
Males: PubG-2010 Retired Mortality Table for Males, adjusted by 95%	
Females: PubG-2010 Retired Mortality Table for Females, adjusted by 95%	
Mortality[2] among disabled members	Table A-5
Males: PubG-2010 Disabled Mortality Table for Males, adjusted by 95%	
Females: PubG-2010 Disabled Mortality Table for Females, adjusted by 95%	
Other terminations of employment	Table A-6
Probabilities of refund on termination	Table A-7

1. Member contributions made prior to January 1, 2012 are assumed to accrue interest at 5.75%; contributions made on or after that date are assumed to accrue at 3.85%.

2. All mortality tables are generational using the MP-2021 Ultimate projection scale to reflect future mortality improvement.

Table A-2
Future Salaries – Plans 1 and 2

Years of Service	Annual Rate of Increase	
	Promotion and Longevity	Total[1]
0 to 1	4.25%	7.74%
1 to 2	3.25	6.71
2 to 3	2.50	5.93
3 to 4	1.75	5.16
4 to 5	1.25	4.64
5 to 6	1.00	4.38
6 to 7	0.90	4.28
7 to 8	0.80	4.18
8 to 9	0.72	4.09
9 to 10	0.65	4.02
10 to 11	0.60	3.97
11 to 12	0.55	3.92
12 to 13	0.50	3.87
13 to 14	0.45	3.82
14 to 15	0.40	3.76
15 to 16	0.35	3.71
16 to 17	0.33	3.69
17 to 18	0.31	3.67
18 to 19	0.29	3.65
19 to 20	0.27	3.63
20 to 21	0.25	3.61
21 to 22	0.25	3.61
22 to 23	0.25	3.61
23 to 24	0.25	3.61
24 to 25	0.25	3.61
25 and over	0.25	3.61

1. Total rate shown reflects compounded effect of merit increase and assumed wage growth of 3.35%.

Note: To reflect negotiated increases and market adjustments, salary increases are assumed to be 1.5% higher for the 2025 year and assumed to be 1.0% higher for the 2026 year.

Table A-3a
Retirement – Plan 1 (1)

	Annual Probability – Males				
	Eligible for Reduced Benefits	Eligible for Full Benefits			
	Years of Credited Service				
Age	All years	Less than 10 years	10-19 years	20-29 years	30 or more years
Less than 50	0.0%	4.8%	4.8%	5.4%	6.9%
50	3.0	5.6	5.6	6.3	8.1
51	3.0	5.6	5.6	6.3	8.1
52	3.0	5.6	5.6	6.3	8.1
53	3.0	5.6	5.6	6.3	8.1
54	3.0	5.6	5.6	6.3	8.1
55	4.0	7.2	7.2	8.1	10.4
56	4.0	7.2	7.2	8.1	10.4
57	5.0	7.2	7.2	8.1	10.4
58	5.0	7.2	7.2	8.1	10.4
59	5.0	7.2	7.2	8.1	10.4
60	5.0	8.0	8.0	9.0	11.5
61	5.0	9.6	9.6	10.8	13.8
62	10.0	12.8	12.8	14.4	18.4
63	10.0	12.8	12.8	14.4	18.4
64	10.0	14.4	14.4	16.2	20.7
65		28.8	28.8	32.0	35.2
66		28.8	28.8	32.0	35.2
67		28.8	28.8	32.0	35.2
68		27.0	27.0	30.0	33.0
69		27.0	27.0	30.0	33.0
70		27.0	27.0	30.0	33.0
71		27.0	27.0	30.0	33.0
72		27.0	27.0	30.0	33.0
73		27.0	27.0	30.0	33.0
74		27.0	27.0	30.0	33.0
75		(2)	(2)	(2)	(2)

1. For Plan 2, 80% of the Plan 1 retirement rates are assumed at ages less than 62. The same retirement rates for ages 62 and later are assumed for Plan 1 and 2.
2. Immediate retirement is assumed for every person age 75 or over.

Table A-3b
Retirement – Plan 1 (1)

Annual Probability – Females					
	Eligible for Reduced Benefits	Eligible for Full Benefits			
	Years of Credited Service				
Age	All years	Less than 10 years	10-19 years	20-29 years	30 or more years
Less than 50	0.0%	6.4%	6.4%	7.2%	9.2%
50	4.0	7.2	7.2	8.1	10.4
51	4.0	7.2	7.2	8.1	10.4
52	4.0	7.2	7.2	8.1	10.4
53	4.0	7.2	7.2	8.1	10.4
54	4.0	7.2	7.2	8.1	10.4
55	6.0	8.0	8.0	9.0	11.5
56	5.0	8.0	8.0	9.0	11.5
57	5.0	8.0	8.0	9.0	11.5
58	5.0	8.0	8.0	9.0	11.5
59	7.0	8.0	8.0	9.0	11.5
60	8.0	8.8	8.8	9.9	12.7
61	10.0	10.4	10.4	11.7	15.0
62	15.0	12.8	12.8	14.4	18.4
63	12.0	12.8	12.8	14.4	18.4
64	12.0	14.4	14.4	16.2	20.7
65		28.8	28.8	32.0	35.2
66		28.8	28.8	32.0	35.2
67		28.8	28.8	32.0	35.2
68		27.0	27.0	30.0	33.0
69		27.0	27.0	30.0	33.0
70		27.0	27.0	30.0	33.0
71		27.0	27.0	30.0	33.0
72		27.0	27.0	30.0	33.0
73		27.0	27.0	30.0	33.0
74		27.0	27.0	30.0	33.0
75		(2)	(2)	(2)	(2)

1. For Plan 2, 80% of the Plan 1 retirement rates are assumed at ages less than 62. The same retirement rates for ages 62 and later are assumed for Plan 1 and 2.
2. Immediate retirement is assumed for every person age 75 or over.

Table A-4
Disability – Plans 1 and 2 [1]

	Annual Rates	
Age	**Male**	**Female**
20	0.00%	0.00%
25	0.00	0.00
30	0.00	0.00
35	0.00	0.00
40	0.03	0.03
45	0.03	0.03
50	0.04	0.04
55	0.05	0.05
60	0.06	0.06
65	0.00	0.00

1. It is assumed that one-third of all disabilities are duty-related and two-thirds are non-duty related.
Only the duty-related assumption is used prior to 10 years of service.

Table A-5
Mortality – Plans 1 and 2

	Annual Probability[1]					
	Contributing Members		Members Retired for Service and Beneficiaries of Members		Disabled Members	
Age	Males	Females	Males	Females	Males	Females
22	0.03 %	0.01 %	0.03 %	0.01 %	0.33 %	0.18 %
27	0.03	0.01	0.03	0.01	0.29	0.19
32	0.04	0.02	0.04	0.02	0.37	0.29
37	0.05	0.03	0.05	0.03	0.49	0.46
42	0.07	0.04	0.07	0.04	0.72	0.72
47	0.11	0.06	0.11	0.06	1.16	1.11
52	0.17	0.09	0.33	0.23	1.73	1.51
57	0.24	0.14	0.47	0.30	2.17	1.74
62	0.35	0.21	0.68	0.43	2.54	1.95
67	0.52	0.34	1.05	0.72	3.19	2.33
72	N/A	N/A	1.81	1.27	4.13	3.08
77	N/A	N/A	3.19	2.25	5.62	4.44
82	N/A	N/A	5.75	4.06	8.14	6.79
87	N/A	N/A	10.20	7.59	11.97	10.46
92	N/A	N/A	16.86	13.53	18.17	14.85

Annual Projected Mortality Improvement

Age	All Groups
62 & Less	1.35 %
67	1.28
72	1.21
77	1.14
82	1.01
87	0.77
92	0.54
97	0.36
102	0.26
107	0.16
112	0.06
115	-

1. Mortality rates are those applicable for the fiscal year beginning in 2010. Annual projected improvements are assumed in the following years under the schedule shown. For example, the annual mortality rate for an 82-year-old male in the fiscal year beginning in 2025 is 4.937% calculated as follows:

Age 82 rate in 2025 = Age 82 rate in 2010 with 15 years improvement
= 5.7494% x [(100.0% - 1.01%)^{15}] = 4.937%

Table A-6
Other Terminations of Employment Among Members Not Eligible to Retire – Plans 1 and 2

Years of Service	Annual Rates	
	Males	Females
0 to 1	8.0%	8.5%
1 to 2	7.0	8.3
2 to 3	6.0	8.0
3 to 4	5.5	7.8
4 to 5	5.0	7.5
5 to 6	4.5	7.0
6 to 7	4.0	6.3
7 to 8	3.7	5.7
8 to 9	3.4	5.1
9 to 10	3.1	4.5
10 to 11	2.9	4.1
11 to 12	2.7	3.8
12 to 13	2.5	3.4
13 to 14	2.3	3.1
14 to 15	2.1	2.7
15 to 16	1.9	2.4
16 to 17	1.7	2.0
17 to 18	1.5	1.7
18 to 19	1.3	1.4
19 to 20	1.1	1.2
20 to 21	0.9	1.1
21 to 22	0.8	1.0
22 to 23	0.8	0.9
23 to 24	0.7	0.8
24 to 25	0.7	0.8
25 to 26	0.6	0.7
26 to 27	0.6	0.7
27 to 28	0.5	0.6
28 to 29	0.5	0.6
30 or more	0.5	0.5

Table A-7
Probability of Refund – Plans 1 and 2

Age	Probabilities of Refund upon Termination[1]
25	40.0%
30	40.0
35	35.0
40	30.0
45	30.0
50	30.0
55	25.0
60	20.0

1. If service is 20 or more years at termination, probability of refund is equal to 10%.

Appendix B Provisions of Governing Law

All actuarial calculations are based upon our understanding of the provisions governing the Seattle City Employees' Retirement System, Chapter 4.36 of the Seattle City Code. The benefit and contribution provisions are summarized briefly below, along with corresponding references to the City code. This summary encompasses the major provisions of the System; it does not attempt to cover all of the detailed provisions.

Effective Date	The effective date of the retirement system was July 1, 1929. (Section 4.36.080)
Membership	
Plan 1	Employees whose membership date is prior to January 1, 2017. (Section 4.36.060)
Plan 2	Employees whose membership date is on or after January 1, 2017. (Section 4.36.060)
Members' Contribution Rate	
Plan 1	The members' contribution rate is 10.03% of salary as of January 2012. Certain members who were contributing at a lower rate on June 23, 1972 continue to contribute at a lower rate. (Section 4.36.540A)
Plan 2	The members' contribution rate is 7.00% of salary as of January 2017. (Section 4.36.540B)
Employer Contribution Rate	The employer contribution rate is the amount that is actuarially determined to be necessary to fund that portion of the retirement allowances not covered by the members' contributions. This amount shall be at least the members' contribution rate. (Section 4.36.545)
Final Compensation	
Plan 1	Final compensation is based on highest average compensation (excluding overtime) during any consecutive 24 months. (Sections 4.36.040 and 4.36.050)
Plan 2	Final compensation is based on highest average compensation (excluding overtime) during any consecutive 60 months. (Sections 4.36.040 and 4.36.050)
Service Retirement	
Plan 1	*Eligibility* 30 years of service; Age 52 and 20 years of service; Age 57 and 10 years of service; or Age 62 and 5 years of service. *Normal Form* Straight life benefit. *Optional Forms* Actuarial equivalent according to the mortality and interest basis adopted by the Retirement Board for such purposes.

Service Retirement
Plan 1 (continued)

Amount of Allowance
The total monthly allowance is generally 2% times final compensation times total years of creditable service.

However, if the member does not qualify in one of the following ways, the 2% factor is reduced by 0.1% for each year that retirement precedes the earliest date the member would be:

(a) Any age with 30 years of service.
(b) Age 51-59, providing the member's age and years of service total 80 or more.
(c) Age 60 or older with 20 years of service.
(d) Age 65 or older with five years of service.

The reduction is somewhat less than 0.1% for members with less than 20 years of service.

For those hired on or after January 1, 1988, creditable service excludes the first six months of service.

Maximum Allowance
The formula-based retirement allowance (as described above) of any member shall be limited to 60% of final compensation, except where the minimum allowance described below applies.

Minimum Allowance
A monthly benefit based on twice the actuarial value of accumulated member contributions. This is not subject to the 60% of final compensation maximum.

(Sections 4.36.600, 4.36.605, 4.36.610, and 4.36.640)

Note: Effective January 1, 2023, the conversion of the contributions to an annuity benefit in the minimum allowance reflects option factors that use the new mortality rates adopted at the March 2022 Board meeting.

Service Retirement
Plan 2

Eligibility
Age 55 and 20 years of service;

Age 57 and 10 years of service; or

Age 60 and 5 years of service.

Normal Form
Straight life benefit

Optional Forms
Actuarial equivalent according to the mortality and interest basis adopted by the Retirement Board for such purposes.

Amount of Allowance
The total monthly allowance is generally 1.75% times final compensation times total years of creditable service.

However, if the member does not qualify in one of the following ways, the 1.75% factor is reduced by 0.07% for each year that retirement precedes the earliest date the member would be:

(a) 55-64, providing the member's age and years of service total 85 or more.
(c) Age 55 or older with 30 years of service.
(d) Age 65 or older with five years of service.

The reduction is somewhat more than 0.07% for members with less than 20 years of service.

(Sections 4.36.607, 4.36.608, 4.36.610, and 4.36.640)

Disability Retirement

Plans 1 and 2

Eligibility
Ten years of service credited within the 15 years preceding disability retirement. If disability occurs in the course of City employment, there is no service requirement.

Normal Form
Modified cash refund annuity. An optional survivor's benefit is available if the spouse is the beneficiary.

Amount of Allowance
The total monthly disability allowance is the greater of:

(a) 1.5% times final compensation times completed years of creditable service.
(b) 1.5% times final compensation times total years of creditable service that could have been earned to age 62, but not to exceed one-third of final compensation.

Maximum Allowance
The maximum disability allowance is 60% of final compensation.

Minimum Allowance
The minimum disability allowance is $140 per month.
(Sections 4.36.645 and 4.36.650)

Death Benefits

Plans 1 and 2

Retired Members
Death benefits to retired members are payable according to the form of retirement allowance elected.

Active Members

(a) Payment to the beneficiary of accumulated contributions, including interest; or
(b) If the member had completed 10 years of service at the time of death, a surviving spouse or a registered domestic partner may elect to receive, in place of (a) above, either:
    (1) A monthly allowance for life equal to the benefit the spouse would have received had the member just retired with a 100% contingent annuitant option in force: or
    (2) A cash payment of no more than one-half of the member's accumulated contributions, along with a correspondingly reduced retirement allowance.

(Section 4.36.680)

Withdrawal Benefits

Plans 1 and 2

Form of Payment
Payment of accumulated contributions, with interest.
(Section 4.36.665A)

Vested Withdrawal Benefits Plans 1 and 2	*Eligibility* Five years of service. *Amount of Allowance* Same as service retirement benefit.
Plan 1	*Benefits Commence* Age 52, if 20 or more years of service; Age 57, if 10-19 years of service; or Age 62, regardless of years of service. (Section 4.36.665)
Plan 2	*Benefits Commence* Age 55, if 20 or more years of service; Age 57, if 10-19 years of service; or Age 60, regardless of years of service. (Section 4.36.665)
Postretirement Benefit Increases Plans 1 and 2	*Provisions* Effective January 1, 2007, the City Council adopted a 65% Restoration of Purchasing Power benefit and an automatic 1.5% annual COLA to all members. If the System reaches a 100% Funding Ratio, the restoration amount increases to 70%. (Section 4.36.615)
Death Benefit System Plans 1 and 2	*Eligibility* Mandatory for all active members; optional for retired members. *Benefits* $2,000 upon the death of an active member or a participating retired member. *Assessment* Members pay an assessment of $12 per year; the City pays a matching amount. If these assessments are not adequate, additional amounts may be transferred from the interest earnings in the retirement fund. (Sections 4.36.690 and 4.36.695)
Additional Contributions Plan 1 and 2	*Provisions* Members may voluntarily make contributions in excess of the regular rate; these are make-up contributions that apply only in specific situations. *Retirement Benefit* A monthly annuity which is the actuarial equivalent of accumulated additional contributions with interest. *Other Benefits* Accumulated additional contributions, with interest, generally become payable upon termination other than retirement. (Sections 4.36.030 and 4.36.540A)

Appendix C Valuation Data

This valuation is based upon the membership of the System as of January 1, 2025. Membership data were supplied by the System and accepted for valuation purposes without audit. However, extensive tests were performed to ensure that the data are sufficiently accurate for valuation purposes.

The data for all contributing members, former contributing members, and their survivors are summarized in Table C-1.

Tables C-2 through C-4 present distributions of members receiving service retirement benefits, members receiving disability retirement benefits, and survivors receiving benefits. Shown in the tables are the numbers of persons receiving benefits, the total annual benefits received (including payments for the annual bonus), and the average annual benefit per recipient.

Table C-5 contains summaries of the data for contributing members. Values shown in the tables are the numbers of members and their total and average annual salaries.

The valuation also includes liabilities attributable to members who have terminated employment but have neither retired nor withdrawn their contributions.

Table C-1
Summary of Membership Data

	Contributing Members			Annuitants		
	Number	Annual Salaries ($1,000)	Average Annual Salaries	Number	Annual Benefits ($1,000)	Average Annual Benefits
January 1, 2025	9,855	$ 1,181,677	$ 119,906	7,751	$ 265,266	$ 34,223
January 1, 2024	9,740	1,074,451	110,313	7,616	255,157	33,503
January 1, 2023	9,309	972,622	104,480	7,513	246,224	32,773
January 1, 2022	9,045	876,375	96,893	7,317	233,448	31,905
January 1, 2021	9,287	878,168	94,562	7,123	222,649	31,258
January 1, 2020	9,440	819,738	86,833	7,029	214,193	30,473
January 1, 2019	9,388	777,619	82,831	6,792	197,256	29,042
January 1, 2018	9,284	760,987	81,968	6,534	182,794	27,976
January 1, 2017	9,151	725,580	79,288	6,382	174,933	27,411
January 1, 2016	8,882	686,748	77,317	6,223	165,836	26,650
January 1, 2015	8,746	647,800	74,068	6,019	155,597	25,852
January 1, 2014	8,603	606,888	70,548	5,880	147,145	25,026
January 1, 2013	8,465	579,396	68,449	5,742	137,836	24,006
January 1, 2012	8,430	560,412	66,476	5,580	128,645	23,056
January 1, 2011	8,599	569,472	66,225	5,428	118,920	21,909
January 1, 2010	9,071	596,892	65,802	5,304	108,886	20,529
January 1, 2008	8,842	529,062	59,835	5,201	102,772	19,760

Table C-2
Members Receiving Service Retirement Benefits as of January 1, 2025 – Inactive Lives

		<50	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90+	Totals
Number of Persons		0	20	159	590	1,451	1,821	1,522	806	350	167	6,886
Annual Benefits in Thousands	$	0	1,053	7,348	24,579	53,275	66,672	52,717	25,800	9,304	4,310	245,058
Average Annual Benefits	$	0	52,652	46,211	41,659	36,716	36,613	34,637	32,011	26,584	25,810	35,588

Table C-3
Members Receiving Disability Retirement Benefits as of January 1, 2025 – Inactive Lives

	<50	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90+	Totals
Number of Persons	2	1	2	9	13	8	3	3	2	0	43
Annual Benefits in Thousands	$ 69	*	36	184	264	139	58	49	33	0	860
Average Annual Benefits	$ 34,303	*	18,080	20,419	20,298	17,320	19,252	16,339	16,441	0	20,003

** Benefit amounts for groups with only one member not shown.*

Table C-4
Survivors Receiving Retirement Benefits as of January 1, 2025 – Inactive Lives

	<50	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90+	Totals
Number of Persons	6	12	25	49	82	125	129	115	75	106	724
Annual Benefits in Thousands	$ 70	264	415	1,228	1,999	3,123	3,262	3,302	1,659	2,564	17,887
Average Annual Benefits	$ 11,717	21,961	16,614	25,064	24,382	24,987	25,286	28,712	22,118	24,192	24,706

Note: In addition, 98 survivors are receiving $1,461,047 in Option B or Option C benefits for a certain period only.

Table C-5
Distribution of Employees and Salaries as of January 1, 2025 – Active Lives

Nearest Year of Service	<20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Totals
0	3	33	76	73	78	44	45	34	36	10	3	2	437
1	1	67	138	174	152	113	62	74	41	32	15	5	874
2		34	165	203	171	121	117	67	58	34	10	6	986
3-4		10	118	182	194	154	99	98	91	42	18	9	1,015
5-9			68	300	466	449	330	300	258	164	67	17	2,419
10-14			1	41	152	266	216	225	166	120	69	26	1,282
15-19				1	35	176	259	234	196	168	57	18	1,144
20-24					1	33	142	149	185	134	73	21	738
25-29						1	26	131	162	130	70	11	531
30-34								23	86	104	40	12	265
35-39									12	49	37	9	107
40+									1	16	24	16	57
Totals	4	144	566	974	1,249	1,357	1,296	1,335	1,292	1,003	483	152	9,855

Monthly Salaries in Thousands - By Age Group

Nearest Year of Service	<20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Totals
0	$ 9	$ 186	$ 517	$ 580	$ 637	$ 396	$ 314	$ 261	$ 207	$ 95	$ 4	$ 2	$ 3,209
1	*	381	1,068	1,471	1,218	1,008	479	589	341	293	41	12	6,903
2		224	1,264	1,669	1,619	1,044	1,072	632	528	302	69	28	8,451
3-4		80	945	1,652	1,840	1,574	976	966	881	360	146	36	9,457
5-9			618	2,891	4,845	4,739	3,573	3,138	2,619	1,570	593	77	24,662
10-14			*	412	1,627	3,043	2,471	2,533	1,762	1,326	721	232	14,141
15-19				*	397	1,921	2,997	2,693	2,055	1,709	604	138	12,522
20-24					*	369	1,589	1,707	2,082	1,438	745	165	8,106
25-29						*	297	1,656	1,889	1,445	805	117	6,219
30-34								279	986	1,111	469	142	2,987
35-39									134	541	394	116	1,185
40+									*	204	273	144	630
Totals	9	871	4,426	8,683	12,193	14,103	13,769	14,453	13,493	10,394	4,866	1,209	98,473

** If there is only one participant in a cell, the monthly salary is not reported.*

Table C-5
Distribution of Employees and Salaries as of January 1, 2025 – Active Lives (continued)

Nearest Year of Service	<20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Totals
0	$ 3,155	$ 5,622	$ 6,797	$ 7,947	$ 8,168	$ 8,996	$ 6,985	$ 7,687	$ 5,748	$ 9,534	$ 1,367	$ 1,084	$ 7,343
1	*	5,686	7,739	8,454	8,013	8,917	7,725	7,953	8,321	9,151	2,734	2,351	7,899
2		6,583	7,660	8,224	9,467	8,625	9,160	9,431	9,103	8,890	6,913	4,698	8,571
3-4		8,021	8,012	9,076	9,484	10,222	9,860	9,856	9,683	8,570	8,127	3,945	9,317
5-9			9,093	9,637	10,396	10,554	10,826	10,461	10,151	9,570	8,853	4,544	10,195
10-14			*	10,039	10,706	11,440	11,441	11,257	10,617	11,050	10,451	8,938	11,031
15-19				*	11,340	10,914	11,571	11,507	10,484	10,174	10,596	7,688	10,946
20-24					*	11,185	11,193	11,457	11,254	10,731	10,210	7,853	10,984
25-29						*	11,433	12,642	11,660	11,115	11,502	10,623	11,712
30-34								12,127	11,466	10,680	11,732	11,831	11,272
35-39									11,141	11,050	10,652	12,880	11,076
40+									*	12,757	11,371	9,007	11,057
Totals	2,367	6,045	7,819	8,915	9,762	10,393	10,624	10,827	10,444	10,363	10,074	7,957	9,992

** If there is only one participant in a cell, the average monthly salary is not reported*

Appendix D Glossary

The following definitions are those generally used by major actuarial organizations in the United States. In some cases, the definitions have been modified for specific applicability to the Seattle City Employees' Retirement System. Defined terms are capitalized throughout this Appendix.

Accrued Benefit

The amount of an individual's benefit (whether or not vested) as of a specific date, determined in accordance with the terms of a pension plan and based on compensation and service to that date.

Actuarial Accrued Liability

That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of pension plan benefits and expenses which is not provided for by future Normal Costs.

Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as mortality, withdrawal, disability, and retirement; changes in compensation, rates of investment earnings, and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; and other relevant items.

Actuarial Cost Method

A procedure for determining the Actuarial Present Value of pension plan benefits and expenses and for developing an actuarially equivalent allocation of such value to time periods, usually in the form of a Normal Cost and an Actuarial Accrued Liability.

Actuarial Gain (Loss)

A measure of the difference between actual experience and that expected based upon a set of Actuarial Assumptions during the period between two Actuarial Valuation dates, as determined in accordance with a particular Actuarial Cost Method.

Actuarial Present Value

The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions.

Actuarial Valuation

The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.

Actuarial Value of Assets

The value of cash, investments, and other property belonging to a pension plan, as used by the actuary for the purpose of an Actuarial Valuation.

Actuarially Equivalent

Of equal Actuarial Present Value, determined as of a given date with each value based on the same set of Actuarial Assumptions.

Amortization Payment

That portion of the pension plan contribution that is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability (UAAL).

Entry Age Actuarial Cost Method

A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages. The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost. The portion of this Actuarial Present Value not provided for at a valuation date by the Actuarial Present Value of future Normal Costs is called the Actuarial Accrued Liability.

Funding Ratio

The Actuarial Value of Assets divided by the Actuarial Accrued Liability. May also be calculated as the Market Value of Assets divided by the Actuarial Accrued Liability, in which case it is indicated that the Funding Ratio is shown on a Market Value basis.

Funding Reserve

The excess, if any, of the Actuarial Value of Assets over the Actuarial Accrued Liability.

Normal Cost

That portion of the Actuarial Present Value of pension plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

Projected Benefits

Those pension plan benefit amounts which are expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age and past and anticipated future compensation and service credits.

Unfunded Actuarial Accrued Liability

The excess of the Actuarial Accrued Liability over the Actuarial Value of Assets.