Sonoma County Employees' Retirement Association

Actuarial Valuation and Review
as of December 31, 2024

Segal

Segal

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May 1, 2025

Board of Retirement
Sonoma County Employees' Retirement Association
433 Aviation Boulevard, Suite 100
Santa Rosa, CA 95403

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of December 31, 2024 for the Sonoma County Employees' Retirement Association ("SCERA" or "the Plan"). It summarizes the actuarial data used in the valuation, analyzes the preceding year's experience, and establishes the funding requirements for fiscal year 2026-2027.

This report has been prepared in accordance with generally accepted actuarial principles and practices for the exclusive use and benefit of the Board of Retirement (the Board), based upon information provided by the staff of SCERA and the Plan's other service providers.

Segal does not audit the data provided. The accuracy and comprehensiveness of the data is the responsibility of those supplying the data. To the extent we can, however, Segal does review the data for reasonableness and consistency. Based on our review of the data, we have no reason to doubt the substantial accuracy of the information on which we have based this report and we have no reason to believe there are facts or circumstances that would affect the validity of these results.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as 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; and changes in plan provisions or applicable law.

The actuarial calculations were directed under the supervision of Andy Yeung, ASA, MAAA, FCA and Enrolled Actuary. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. The assumptions used in this actuarial valuation were selected by the Board of Retirement based upon our analysis and

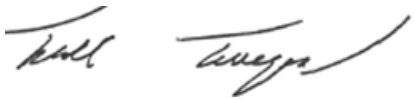
recommendations. In our opinion, the assumptions are reasonable and take into account the experience of SCERA and reasonable expectations. In addition, in our opinion, the combined effect of these assumptions is expected to have no significant bias.

Segal makes no representation or warranty as to the future status of the Plan and does not guarantee any particular result. This document does not constitute legal, tax, accounting or investment advice or create or imply a fiduciary relationship. The Board is encouraged to discuss any issues raised in this report with the Plan's legal, tax and other advisors before taking, or refraining from taking, any action.

We look forward to reviewing this report at your next meeting and to answering any questions.

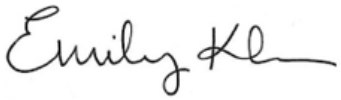
Sincerely,

Segal



Todd Tauzer, FSA, MAAA, FCA, CERA
Senior Vice President and Actuary

Andy Yeung, ASA, MAAA, FCA, EA
Vice President and Actuary



Emily Klare, ASA, MAAA, EA
Senior Actuary

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Section 1: Actuarial Valuation Summary

Purpose and basis

This report has been prepared by Segal to present a valuation of the Sonoma County Employees' Retirement Association ("SCERA" or "the Association" or "the Plan") as of December 31, 2024. The valuation was performed to determine whether the assets and contribution rates are sufficient to provide the prescribed benefits.

The contribution requirements presented in this report are based on:

- The benefit provisions of the Plan, as administered by the Board;
- The characteristics of covered active, inactive and retired members and beneficiaries as of December 31, 2024, provided by the staff of SCERA;[1]
- The assets of the Plan as of December 31, 2024, provided by the staff of SCERA;
- Economic assumptions regarding future salary increases and investment earnings[2] adopted by the Board for the December 31, 2024 funding valuation;
- Other actuarial assumptions regarding employee terminations, retirement, death, etc. adopted by the Board for the December 31, 2024 funding valuation; and
- The funding policy adopted by the Board.

Certain disclosure information required by Governmental Accounting Standards Board (GASB) Statements No. 67 and 68 as of December 31, 2024 for the Plan and the employers, respectively, are provided in separate reports.

One of the general goals of an actuarial valuation is to establish contributions which fully fund the Association's liabilities, and which, as a percentage of payroll, remain as level as possible for each generation of active members. Annual actuarial valuations measure the progress toward this goal, as well as test the adequacy of the contribution rates.

[1] In order to capture the full accrued service through December 31, 2024, we have adjusted the member data reported to us by SCERA to include an additional 0.022998 years of service for County and Superior Court of California – County of Sonoma active members, and an additional 0.02464 years of service for Sonoma Valley Fire District active members.

[2] It should be noted that 6.75% investment return assumption has not been adjusted to account for the impact of any future action that might be taken by the Board to provide an ad-hoc COLA benefit using excess earnings.

The contribution requirements are determined as a percentage of payroll. The Association's employer rates provide for both normal cost and a contribution to amortize any unfunded (or overfunded, if applicable) actuarial accrued liabilities. In this valuation, we have applied the funding policy adopted by the Board on May 19, 2011 and last updated on March 23, 2023. Details of the funding policy are provided in *Section 4, Exhibit 1* starting on page 79.

The rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2026 through June 30, 2027.

Valuation highlights

Changes from prior year

1. The results of this valuation reflect changes in the actuarial assumptions[1] as recommended by Segal and adopted by the Board for use in this valuation. The information and analysis used in selecting each assumption are shown in our January 1, 2021 through December 31, 2023 Actuarial Experience Study dated October 17, 2024 and are also outlined in *Section 4, Exhibit 1* of this report.

   These assumption changes (primarily higher expected salary increases for General, increases in disability incidence for Safety and adjustment to mortality for beneficiaries of General and Safety who are not in pay status) increased the unfunded actuarial accrued liability (UAAL) by $12.1 million and resulted in an increase in the average employer rate of 0.58% of payroll and an increase in the average member rate of 0.31% of payroll. Out of the 0.58% of payroll increase in average employer rate, 0.41% is an increase in the normal cost rate and 0.17% is an increase in the UAAL rate.

2. The Board acted on March 21, 2024 to no longer track prior years' interest crediting shortfall in the Negative Contingency Reserve. Effective January 1, 2024 the Employer Reserve was adjusted to account for the balance in the Negative Contingency Reserve (note that this adjustment has no impact on the UAAL contribution rate requirement). Furthermore, any remaining leftover after crediting interest in accordance with the updated Interest Crediting and Reserve Policy is tracked in the Interest Fluctuation Reserve. As of December 31, 2024, about $11.7 million is in that reserve and that account is available to supplement any shortfall in earnings after December 31, 2024.

[1] There was also a refinement in methodology used to allocate the present value of benefits between prior service (actuarial accrued liability) and future service (normal costs).

Funding measures

3. The funded ratio (the ratio of valuation value of assets to the actuarial accrued liability) slightly decreased from 93.8% to 93.7%. This ratio is one measure of funding status, and its history is a measure of funding progress. Using the market value of assets, the funded ratio increased from 93.3% to 95.7%. These measurements are not necessarily appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the Plan's benefit obligation or the need for, or the amount of, future contributions. A history of the Association's funded ratios is provided in *Section 2, Subsection G* on pages 39 and 40.

4. The unfunded actuarial accrued liability (the difference between the actuarial accrued liability and the valuation value of assets) increased from $229.5 million to $248.1 million. The increase in UAAL is primarily due to individual salary increases greater than expected, changes in actuarial assumptions and other experience losses, partially offset by the investment return on the valuation value (after asset smoothing) greater than the 6.75% return assumption used in the December 31, 2023 valuation. A reconciliation of the Association's UAAL from the prior year is provided in *Section 2, Subsection E* on page 30.

   A schedule of the current UAAL amortization balances and payments may be found in *Section 3, Exhibit H* starting on page 63. A graphical projection of the UAAL amortization balances and payments is provided in *Section 3, Exhibit I* starting on page 77.

Actuarial experience

5. The net actuarial loss of $34.9 million, or 0.89% of actuarial accrued liability, is due to a net loss from sources other than investments of $54.0 million, or 1.38% of actuarial accrued liability, partially offset by an investment gain (after asset smoothing) of $19.1 million, or 0.49% of the actuarial accrued liability, prior to reflection of the assumption changes. The loss from sources other than investments was primarily due to individual salary increases greater than expected. For more details, see the complete reconciliation of the Plan's UAAL from the prior year in *Section 2, Subsection E* on page 30.

6. The rate of return on the market value of assets was 10.25% for the year ending December 31, 2024. The return on the valuation value of assets was 7.30% for the same period due to the recognition of a portion of prior years' and this years' investment gains and losses. This resulted in an actuarial gain when measured against the assumed rate of return of 6.75% used in the December 31, 2023 valuation. This actuarial investment gain (after asset smoothing) decreased the average employer contribution rate by 0.27% of payroll.

7. In this report we have provided the amount of transfer that would be required to "true-up" the COLA and the Retired Member reserves so that the reserves after the "true-up" are equal to the present value of the COLA and retiree benefits for members currently receiving such benefits.

Contributions

8. Active members represented by some of the bargaining groups have agreed to pay additional employee normal cost contributions that are above those determined under the County Employees Retirement Law of 1937 (CERL), as permitted under the California Public Employees' Pension Reform Act of 2013 (CalPEPRA). As the specific amount of those higher contributions are dependent on the specific bargaining agreements, we have continued to include in this report only the minimum member contribution rates specified in the CERL. The final member rates adjusted to include the additional employee normal cost contributions will be provided separately in side letters based on the terms of the bargaining agreements.

9. Throughout this report we have included separate rates for General-County Plan A[1] members that pay an additional UAAL contribution amount equal to 3.03% of payroll and General-County Plan A members that have sunset the additional UAAL contribution as of July 1, 2024.

10. The average employer rate calculated in this valuation has increased from 19.98% to 20.25% of payroll. This increase is primarily due to individual salary increases greater than expected and the change in actuarial assumptions, partially offset by a greater than expected increase in total payroll and the investment return on the valuation value (after asset smoothing) greater than the 6.75% return assumption used in the December 31, 2023 valuation. A complete reconciliation of the Association's average employer rate is provided in *Section 2, Subsection F* on page 33.

11. The average member rate calculated in this valuation has increased from 9.70% to 9.94% of payroll, primarily due to changes in actuarial assumptions. A complete reconciliation of the Association's average member rate is provided in *Section 2, Subsection F* on page 34.

    The detailed member rates by cost group are provided in *Section 4, Exhibit 3* starting on page 112.

12. Segal strongly recommends an actuarial funding method that targets 100% funding of the actuarial accrued liability. Generally, this implies payments that are ultimately at least enough to cover normal cost, interest on the UAAL and the principal balance. The funding policy adopted by the Board of Retirement is detailed in *Section 4, Exhibit 1* and meets this standard.

Future expectations

13. The total unrecognized net investment **gain** as of December 31, 2024 is $69 million as compared to an unrecognized net investment **loss** of $20 million in the previous valuation. This net deferred gain of $69 million will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years as shown in *Section 2, Subsection B* on page 23.

[1] General-County Plan A members covered under the Salary Resolution, ESC, SCDPDAA, SCLEA, SCLEMA, and SCPDIA bargaining agreements will continue to pay the additional UAAL contribution until they end their employment with the County.

The net deferred gain of $69 million represents about 1.8% of the market value of assets. Unless offset by future investment losses or other unfavorable experience, the recognition of the $69 million net market gain is expected to have an impact on the Association's future funded ratio and contribution rate requirements. This potential impact may be illustrated as follows:

a. If the net deferred gain was recognized immediately in the valuation value of assets, along with the amount currently available in the Interest Fluctuation Reserve, the funded percentage would increase from 93.68% to 95.73%.

   For comparison purposes, if the net deferred loss in the December 31, 2023 valuation had been recognized immediately in the December 31, 2023 valuation, the funded percentage would have decreased from 93.85% to 93.32%.

b. If the net deferred gain was recognized immediately in the valuation value of assets, along with the amount currently available in the Interest Fluctuation Reserve, the average employer contribution rate would decrease from 20.25% to 19.13% of payroll.

   For comparison purposes, if the net deferred loss in the December 31, 2023 valuation had been recognized immediately in the December 31, 2023 valuation, the average employer contribution rate would have increased from 20.16% to 20.46% of payroll.

Risk

14. It is important to note that this actuarial valuation is based on plan assets as of December 31, 2024. The Plan's funded status does not reflect short-term economic fluctuations, but rather is based on the market values on the last day of the plan year. Segal is available to prepare projections of potential outcomes of market conditions and other demographic experience upon request.

15. Because the actuarial valuation results are dependent on a given set of assumptions, there is a risk that emerging results may differ significantly as actual experience proves to be different from the assumptions. We have been engaged to perform a detailed analysis of the potential range of the impact of risk relative to the Plan's future financial condition and that report will be provided at a later date. We have also included a brief discussion of some risks that may affect the Plan in *Section 2, Subsection I*, beginning on page 42. This discussion of risks is included to satisfy the disclosures required by the Actuarial Standard of Practice No. 51 (ASOP 51).

16. The risk assessment in *Section 2, Subsection I* includes the disclosure of a "Low-Default-Risk Obligation Measure" (LDROM). This disclosure, along with commentary on the significance of the LDROM, is a requirement under Actuarial Standard of Practice No. 4 (ASOP 4) for all pension funding actuarial valuation reports and can be found on pages 44-45.

GASB

17. This report constitutes an actuarial valuation for the purpose of determining the actuarially determined contribution (ADC) under the Plan's funding policy and measuring the progress of that funding policy. The Net Pension Liability and Pension Expense under GASB Statements No. 67 and No. 68, for inclusion in the Plan's and employer's financial statements as of December 31, 2024, will be provided separately. The accounting disclosures will utilize different methodologies from those employed in the funding valuation, as required by the GASB. However, the ADC in this valuation is expected to be used as the ADC for GASB financial reporting.

Summary of key valuation results

Average Employer Contribution Calculated as of December 31

Plan and Employer	2024 Contribution Rate	2024 Annual Amount[1] ($ in '000s)	2023 Contribution Rate	2023 Annual Amount ($ in '000s)
General				
• General Plan A-County Without Member UAAL Rate Sunset	18.11%	$13,092	18.04%	$13,042
• General Plan A-County With Member UAAL Rate Sunset	21.13%	15,015	21.06%	14,966
• General Plan A-Court	36.65%	2,245	36.44%	2,231
• General Plan A-Sonoma Valley Fire District (SVFD)	18.42%	24	18.53%	25
• General Plan B-County	15.88%	40,150	15.68%	39,644
• General Plan B-Court	30.28%	2,856	29.90%	2,820
• General Plan B-Sonoma Valley Fire District (SVFD)	11.81%	51	11.87%	51
Safety				
• Safety Plan A-County	34.47%	14,017	32.92%	13,386
• Safety Plan A-Sonoma Valley Fire District (SVFD)	40.11%	2,109	37.42%	1,968
• Safety Plan B-County	26.86%	12,983	27.01%	13,056
• Safety Plan B-Sonoma Valley Fire District (SVFD)	21.61%	1,027	20.51%	976
All Categories Combined	**20.25%**	**$103,569**	**19.98%**	**$102,165**

[1] Based on December 31, 2024 projected annual compensation as shown on page 37.

Average Member Contribution Calculated as of December 31

Plan and Employer	2024 Contribution Rate	2024 Annual Amount[1] ($ in '000s)	2023 Contribution Rate	2023 Annual Amount ($ in '000s)
General				
• General Plan A-County Without Member UAAL Rate Sunset[2]	12.79%	$9,246	12.46%	$9,008
• General Plan A-County With Member UAAL Rate Sunset	9.76%	6,935	9.43%	6,701
• General Plan A-Court	10.17%	623	9.90%	606
• General Plan A-Sonoma Valley Fire District (SVFD)	11.74%	15	11.77%	16
• General Plan B-County	7.70%	19,468	7.70%	19,468
• General Plan B-Court	7.70%	726	7.70%	726
• General Plan B-Sonoma Valley Fire District (SVFD)	7.70%	33	7.70%	33
Safety				
• Safety Plan A-County[3]	13.15%	5,347	13.05%	5,307
• Safety Plan A-Sonoma Valley Fire District (SVFD)	10.41%	547	10.45%	550
• Safety Plan B-County	14.78%	7,144	13.58%	6,564
• Safety Plan B-Sonoma Valley Fire District (SVFD)	15.06%	716	13.22%	629
All Categories Combined	**9.94%**	**$50,800**	**9.70%**	**$49,608**

Note: The average member contribution rates for Plan A shown above are based on the average entry age of each group reflecting the demographics as of the December 31, 2024 valuation. Those entry ages, as well as the entry age and corresponding average contribution rate as of the prior valuation are as follows:

Plan and Employer	Average Entry Age December 31, 2024	Average Entry Age December 31, 2023	Average Contribution December 31, 2023
General Plan A-County Without Sunset	33	34	12.63%
General Plan A-County With Sunset	33	34	9.60%
General Plan A-Court	34	36	10.28%
General Plan A-SVFD	44	43	11.57%
Safety Plan A-County	27	29	13.37%
Safety Plan A-SVFD	28	35	11.70%

[1] Based on December 31, 2024 projected annual compensation as shown on page 37.
[2] Includes an additional UAAL contribution rate of 3.03% of payroll, payable in accordance with bargaining unit agreements.
[3] Includes an additional UAAL contribution rate of 3.00% of payroll, payable in accordance with bargaining unit agreements.

Section 1: Actuarial Valuation Summary

Valuation Results as of December 31

($ in '000s)

Line Description	2024	2023
Actuarial accrued liability		
• Total actuarial accrued liability	$3,925,728	$3,730,227
– Retired members and beneficiaries	2,450,683	2,318,461
– Inactive members[1]	147,065	146,317
– Active members	1,327,980	1,265,449
• Normal cost for plan year beginning December 31	106,014	94,071
Assets		
• Market value of assets (MVA)	$3,758,167	$3,481,146
• Actuarial value of assets (AVA)	3,689,343	3,500,687
• AVA as a percentage of MVA	98.17%	100.56%
• Valuation value of assets (VVA)	$3,677,610	$3,500,687
Funded status		
• Unfunded actuarial accrued liability on MVA basis	$167,561	$249,081
• Funded percentage on MVA basis	95.73%	93.32%
• Unfunded actuarial accrued liability on VVA basis	$248,118	$229,540
• Funded percentage on VVA basis	93.68%	93.85%
Key assumptions		
• Net investment return	6.75%	6.75%
• Inflation rate	2.50%	2.50%
• Payroll growth	3.00%	3.00%
• Cost-of-living adjustments	0.00%	0.00%

[1] Includes inactive members due a refund of member contributions.

Section 1: Actuarial Valuation Summary

Demographic Data as of December 31

Demographic Data by Status	2024	2023	Change
Active members			
• Number of members	4,482	4,242	5.7%
• Average age	44.3	44.8	(0.5)
• Average service	9.0	9.3	(0.3)
• Total projected compensation	$511,319,100	$457,288,313	11.8%
• Average projected compensation	$114,083	$107,800	5.8%
Retired members and beneficiaries			
• Number of members	5,911	5,760	2.6%
– Service retired	4,498	4,384	2.6%
– Disability retired	703	689	2.0%
– Beneficiaries	710	687	3.3%
• Average age	70.6	70.2	0.4
• Average monthly benefit	$3,186	$3,106	2.6%
Inactive members			
• Number of members[1]	1,790	1,765	1.4%
• Average age	45.2	45.0	0.2
Total members	**12,183**	**11,767**	**3.5%**

[1] Includes inactive members due a refund of member contributions.

Important information about actuarial valuations

An actuarial valuation is a budgeting tool with respect to the financing of future projected obligations of a pension plan. It is an estimated forecast – the actual long-term cost of the plan will be determined by the actual benefits and expenses paid and the actual investment experience of the plan.

In order to prepare a valuation, Segal relies on a number of input items. These include:

Input Item	Description
Plan provisions	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Member information	An actuarial valuation for a plan is based on data provided to the actuary by the Association. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Financial information	Part of the cost of a plan will be paid from existing assets — the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the Association. A snapshot as of a single date may not be an appropriate value for determining a single year's contribution requirement, especially in volatile markets. Plan sponsors often use an "actuarial value of assets" that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
Actuarial assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan members for the rest of their lives and the lives of their beneficiaries. This requires actuarial assumptions as to the probability of death, disability, withdrawal, and retirement of members in each year, as well as forecasts of the plan's benefits for each of those events. In addition, the benefits forecasted for each of those events in each future year reflect actuarial assumptions as to salary increases and cost-of-living adjustments (if applicable). The forecasted benefits are then discounted to a present value, typically based on an estimate of the rate of return that will be achieved on the plan's assets. All of these factors are uncertain and unknowable. Thus, there will be a range of reasonable assumptions, and the results may vary materially based on which assumptions are selected within that range. That is, there is no right answer (except with hindsight). It is important for any user of an actuarial valuation to understand and accept this constraint. The actuarial model may use approximations and estimates that will have an immaterial impact on our results. In addition, the actuarial assumptions may change over time, and while this can have a significant impact on the reported results, it does not mean that the previous assumptions or results were unreasonable or wrong.

Section 1: Actuarial Valuation Summary

The user of Segal's actuarial valuation (or other actuarial calculations) should keep the following in mind:

- The actuarial valuation is prepared at the request of the Association. Segal is not responsible for the use or misuse of its report, particularly by any other party.
- An actuarial valuation is a measurement at a specific date — it is not a prediction of a plan's future financial condition. Accordingly, Segal did not perform an analysis of the potential range of financial measurements, except where otherwise noted.
- If SCERA is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting or tax advice and is not acting as a fiduciary to the Plan. This valuation is based on Segal's understanding of applicable guidance in these areas and of the Plan's provisions, but they may be subject to alternative interpretations. The Association should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by SCERA upon delivery and review. SCERA should notify Segal immediately of any questions or concerns about the final content.

Section 2: Actuarial Valuation Results

A. Member information

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, inactive vested members, retired members and beneficiaries.

This section presents a summary of significant statistical data on these member groups. More detailed information for this valuation year and the preceding valuation can be found in *Section 3, Exhibits A, B, and C*.

Member Population

As of December 31	Active Members	Inactive Members[1]	Retired Members and Beneficiaries (Pay Status)	Total Non-Actives	Ratio of Non-Actives to Actives	Ratio of Pay Status to Actives
2015	4,071	1,047	4,653	5,700	1.40	1.14
2016	4,112	1,112	4,812	5,924	1.44	1.17
2017	4,110	1,181	4,936	6,117	1.49	1.20
2018	4,021	1,295	5,096	6,391	1.59	1.27
2019	4,040	1,395	5,250	6,645	1.64	1.30
2020	4,090	1,445	5,347	6,792	1.66	1.31
2021	4,066	1,569	5,478	7,047	1.73	1.35
2022	4,103	1,688	5,627	7,315	1.78	1.37
2023	4,242	1,765	5,760	7,525	1.77	1.36
2024	4,482	1,790	5,911	7,701	1.72	1.32

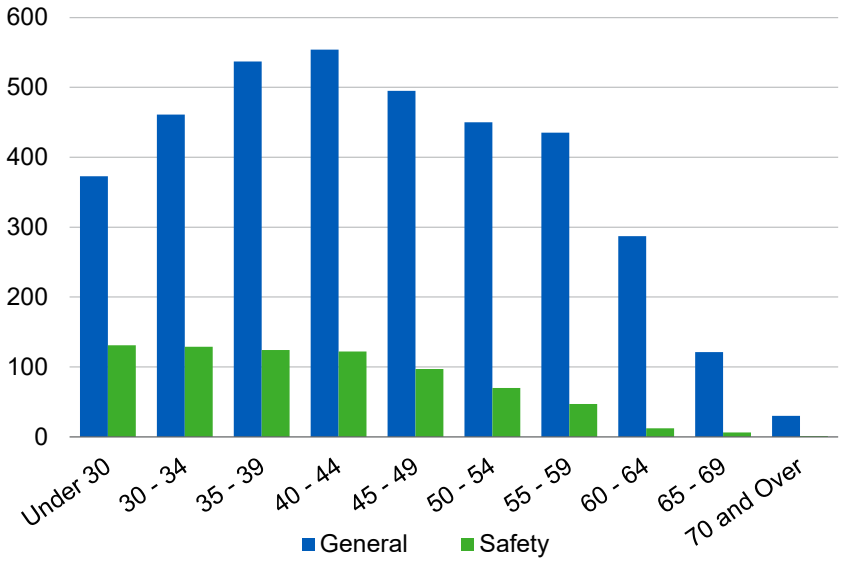
[1] Includes inactive members due a refund of member contributions.

Active members

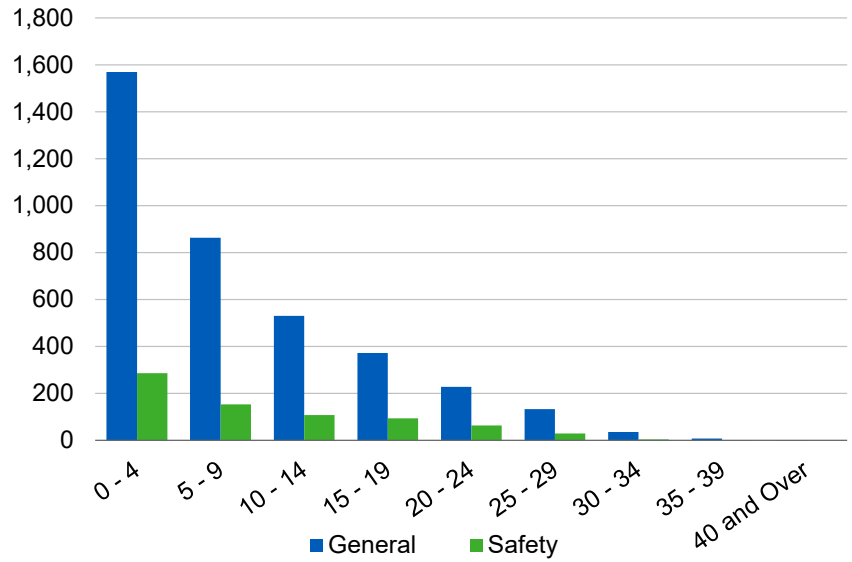
Demographic Data	As of December 31, 2024	As of December 31, 2023	Change
Active members	4,482	4,242	5.7%
Average age[1]	44.3	44.8	(0.5)
Average years of service	9.0	9.3	(0.3)
Average compensation	$114,083	$107,800	5.8%

Distribution of Active Members as of December 31, 2024

Actives by Age



Actives by Years of Service



Inactive members

Demographic Data	As of December 31, 2024	As of December 31, 2023	Change
Inactive members[2]	1,790	1,765	1.4%

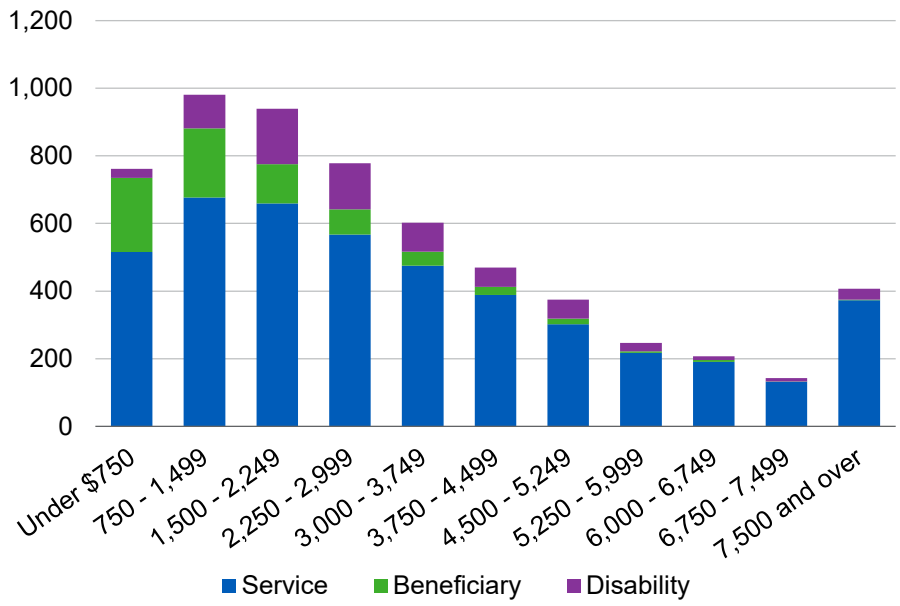
[1] Among the active members, there were none with unknown age information.
[2] Includes inactive members due a refund of member contributions.

Retired members and beneficiaries

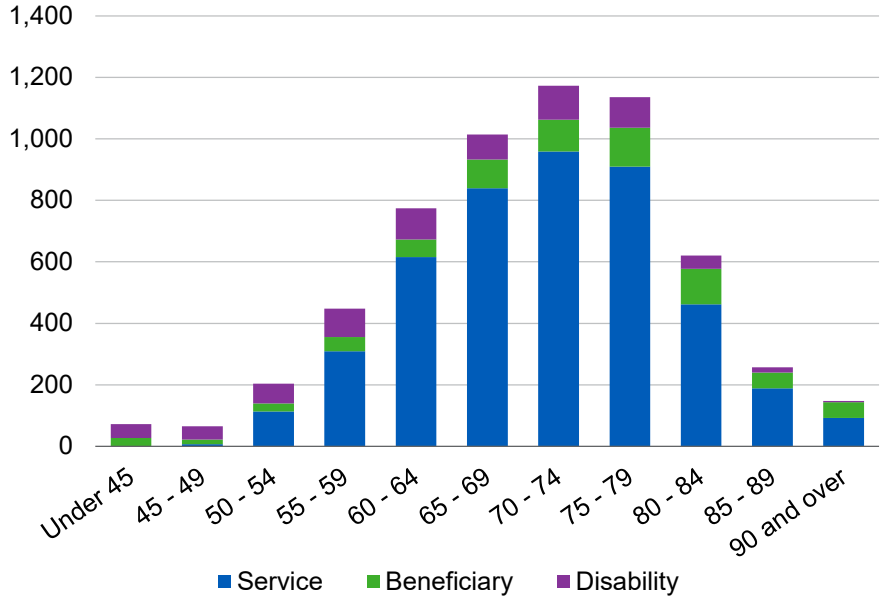
Demographic Data	As of December 31, 2024	As of December 31, 2023	Change
Retired members	5,201	5,073	2.5%
Beneficiaries	710	687	3.3%
Average age	70.6	70.2	0.4
Average monthly amount	$3,186	$3,106	2.6%
Total monthly amount	$18,832,000	$17,890,039	5.3%

Distribution of Retired Members and Beneficiaries as of December 31, 2024

By Type and Monthly Amount



By Type and Age



Historical plan population

The chart below demonstrates the progression of the active population over the last ten years. The chart also shows the growth among the retired population over the same time period.

Member Data Statistics

Active Members versus Retired Members and Beneficiaries (Pay Status)

As of December 31	Active Count	Active Average Age	Active Average Service	Pay Status Count	Pay Status Average Age	Pay Status Monthly Amount
2015	4,071	45.7	9.6	4,653	68.0	$2,691
2016	4,112	45.5	9.4	4,812	68.2	2,747
2017	4,110	45.5	9.6	4,936	68.5	2,799
2018	4,021	45.5	9.7	5,096	68.7	2,855
2019	4,040	45.3	9.6	5,250	68.9	2,899
2020	4,090	45.3	9.7	5,347	69.3	2,943
2021	4,066	45.2	9.7	5,478	69.6	2,991
2022	4,103	45.1	9.4	5,627	69.9	3,057
2023	4,242	44.8	9.3	5,760	70.2	3,106
2024	4,482	44.3	9.0	5,911	70.6	3,186

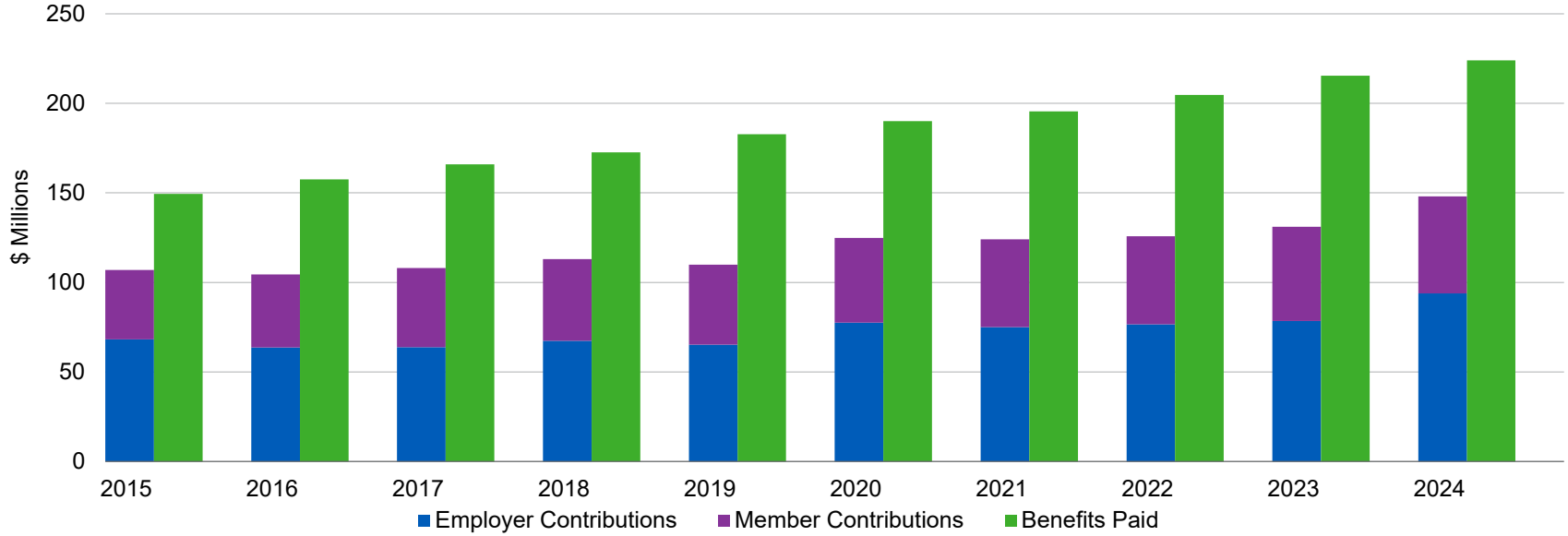
B. Financial information

Retirement plan funding anticipates that, over the long term, both contributions and investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments. Retirement plan assets change as a result of the net impact of these income and expense components.

Additional financial information, including a summary of transactions for the valuation year, is presented in *Section 3, Exhibits D, E, F and G.*

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the valuation asset value and the plan costs are more stable. The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value.

Comparison of Contributions[1] Made with Benefits for Years Ended December 31



Note: Member contributions shown include the additional UAAL contribution made by members in certain bargaining groups.

[1] Employer contributions for 2015, 2020, 2021, 2022, 2023, and 2024 include additional UAAL contributions made by the County in the amount of $3.6 million, $6.7 million, $1.8 million, $5.6 million, $4.4 million and $3.1 million, respectively.

Section 2: Actuarial Valuation Results

Determination of Actuarial Value and Valuation Value of Assets for Year Ended December 31, 2024

	Step	Actual Return[1]	Expected Return[1]	Investment Gain/(Loss)	Percent Deferred	Amount
1.	Market value of assets					$3,758,167,258
2.	**Calculation of unrecognized return**					
	a. Year ended December 31, 2020	$225,039,562	$194,401,533	$30,638,029	0%	$0
	b. Year ended December 31, 2021	522,238,156	206,108,804	316,129,352	20%	63,225,870
	c. Year ended December 31, 2022	(272,839,914)	214,384,067	(487,223,981)	40%	(194,889,592)
	d. Year ended December 31, 2023	395,922,624	220,655,456	175,267,168	60%	105,160,301
	e. Year ended December 31, 2024	352,895,825	233,735,625	119,160,200	80%	95,328,159
	f. Total deferred return[2]					**$68,824,738**
3.	**Actuarial value of assets 1 – 2f**					**$3,689,342,520**
4.	Ratio of actuarial to market value **3 ÷ 1**					98.2%
5.	**Non-valuation reserves[3]**					
	a. Interest Fluctuation Reserve					$11,732,980
6.	**Valuation value of assets 3 – 5a**					**$3,677,609,540**

[1] Beginning January 1, 2022, the actual return on a market value basis is calculated net of administrative and investment expenses. Prior to this date, the actual return on a market value basis was calculated on a net of investment expenses basis only by taking the difference between the end of year and beginning of year market value of assets and adjusting that difference for the non-investment cash flows. Those cash flows included contributions received, benefit payments and administrative expenses made during the last calendar year. The amount subject to smoothing was determined as the actual market return earned during the last calendar year that was in excess/below the expected return on the valuation value of assets. In developing the expected return on the valuation value of assets, we have made a similar change in the treatment of the administrative expense beginning January 1, 2022.

[2] Total deferred return is equal to the **sum of 2a through 2e**. The total deferred return as of December 31, 2024 is recognized in each of the next four years as follows:

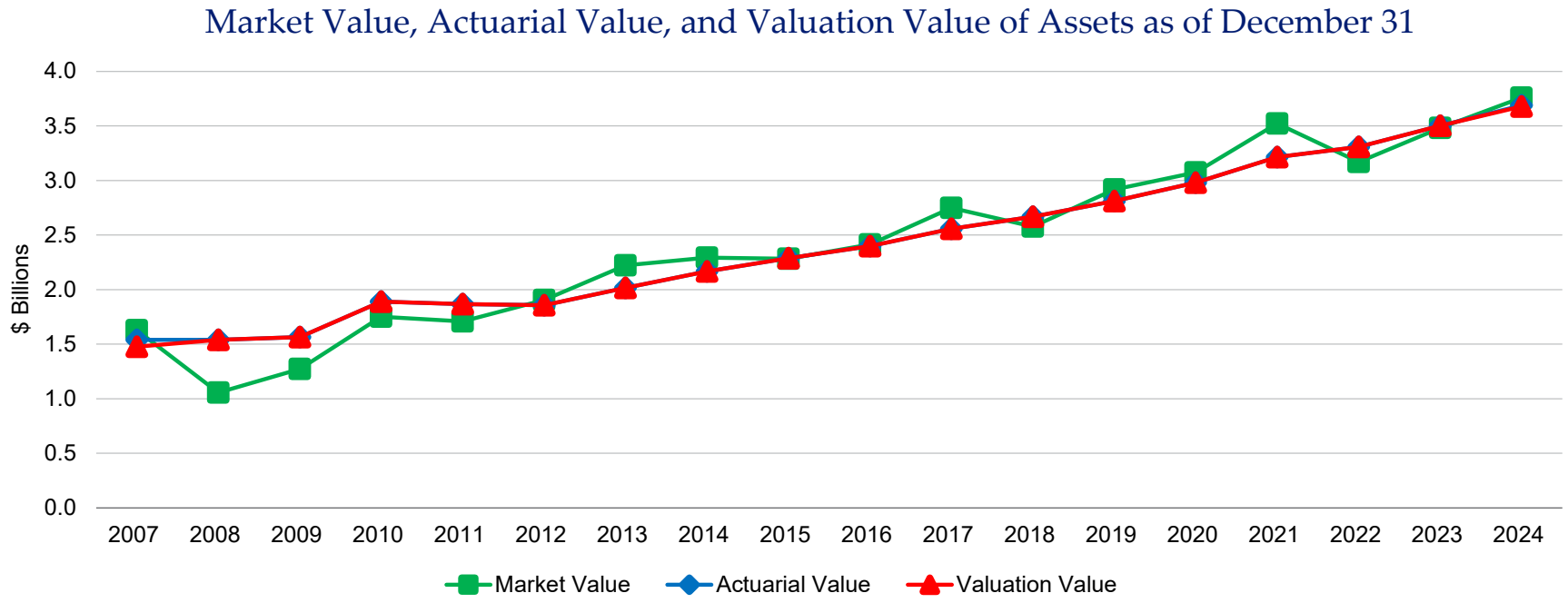
a. Amount recognized on December 31, 2025	$24,666,547
b. Amount recognized on December 31, 2026	(38,559,323)
c. Amount recognized on December 31, 2027	58,885,474
d. Amount recognized on December 31, 2028	23,832,040

[3] Note that the Board acted at their March 2024 meeting to make the Negative Contingency Reserve obsolete effective January 1, 2024, which is reflected in this valuation. Effective with this valuation, any transfers that are required to true up the COLA and Retired Member Reserve are made by moving the amount from the Employer Reserve, previously they were made by moving the amount from the Negative Contingency Reserve.

Asset history

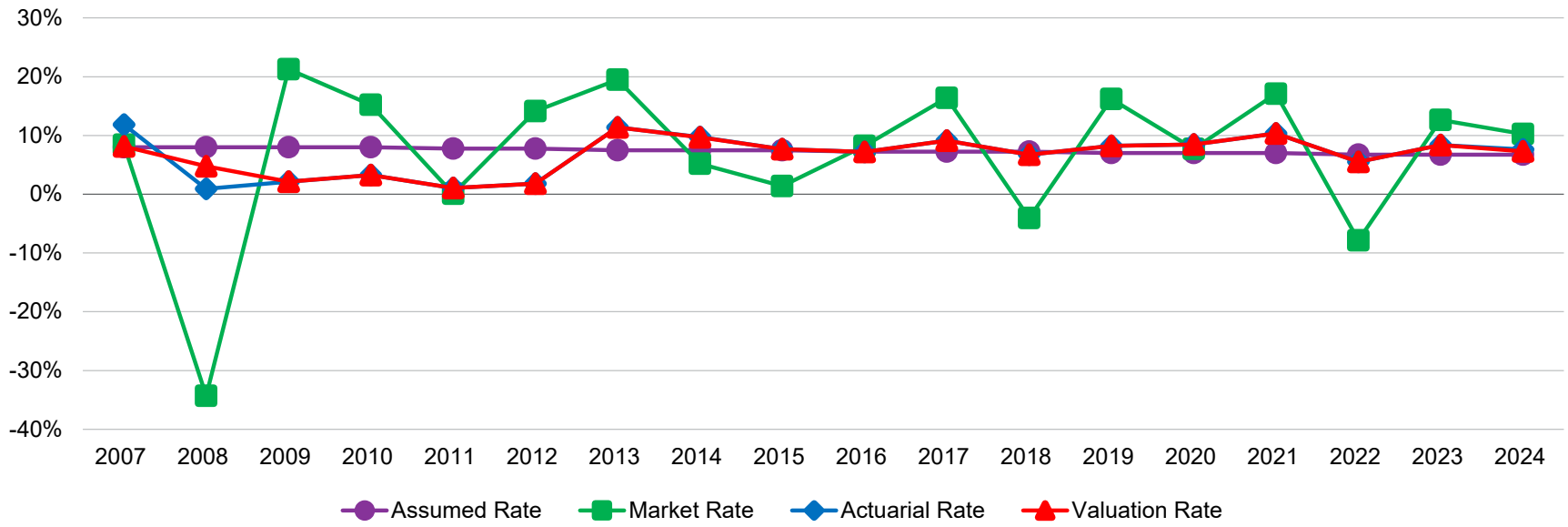
The market value, actuarial value and valuation value of assets are representations of the Plan's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The valuation value of assets is generally the actuarial value, excluding any non-valuation reserves.

The valuation value of assets is significant because the Plan's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.



Historical investment returns

Market, Actuarial and Valuation Rates of Return for Years Ended December 31



Legend	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Market rate	8.40%	(34.33%)	21.28%	15.23%	0.07%	14.16%	19.49%	5.18%	1.37%	8.23%	16.40%	(4.07%)	16.21%	7.70%	17.09%	(7.84%)	12.66%	10.25%
Actuarial rate	11.86%	0.90%	2.13%	3.27%	1.04%	1.82%	11.38%	9.71%	7.65%	7.21%	9.12%	6.71%	8.24%	8.48%	10.36%	5.50%	8.38%	7.64%
Valuation rate	8.15%	4.75%	2.13%	3.27%	1.04%	1.82%	11.38%	9.71%	7.65%	7.21%	9.12%	6.71%	8.24%	8.48%	10.36%	5.50%	8.38%	7.30%
Assumed rate	8.00%	8.00%	8.00%	8.00%	7.75%	7.75%	7.50%	7.50%	7.50%	7.25%	7.25%	7.25%	7.00%	7.00%	7.00%	6.75%	6.75%	6.75%

Average Rates of Return	Market Value	Actuarial Value	Valuation Value
Most recent five-year geometric average return:	7.62%	8.06%	7.99%
Most recent 10-year geometric average return:	7.47%	7.92%	7.89%
Most recent 15-year geometric average return:	8.50%	7.06%	7.04%

C. Actuarial experience

To calculate any actuarially determined contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the actuarially determined contribution will decrease from the previous year. On the other hand, the actuarially determined contribution will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years. There are changes in actuarial assumptions reflected in this valuation as a result of the triennial experience study for use starting with the December 31, 2024 valuation.

The actuarial experience for the year can be found below and a discussion of the major components can be found on the following pages.

Actuarial Experience for Year Ended December 31, 2024

	Source	Amount
1.	Net gain from investments[1]	$(19,061,000)
2.	Net gain from contributions	(8,454,000)
3.	Net gain from County's additional UAAL contributions[2]	(3,232,000)
4.	Net loss from other experience[3]	65,686,000
5.	**Net experience loss**	**$34,939,000**

[1] Details on next page.
[2] Includes interest at the assumed earnings rate of 6.75% on the County's total additional UAAL contributions of $3,149,766.21 from the respective payment dates to December 31, 2024.
[3] See *Subsection E* for further details. Does not include the effect of plan, method or assumption changes, if any.

Investment experience

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Plan's investment policy.

For valuation purposes, the assumed rate of return on the valuation value of assets is 6.75% based on the December 31, 2023 valuation. The actual rate of return on a valuation basis for the 2024 plan year was 7.30% after considering the recognition of a portion of prior years' and this years' investment gains and losses. Since the actual return for the year was more than the assumed return, the Plan experienced an actuarial gain during the year ended December 31, 2024 with regard to its investments.

Investment Experience for Year Ended December 31, 2024

	Line Description	Market Value	Actuarial Value	Valuation Value
1.	Net investment income	$352,895,825	$264,529,779	$252,796,799
2.	Average value of assets	$3,443,208,695	$3,462,750,003	$3,462,750,003
3.	Rate of return **1 ÷ 2**	10.25%	7.64%	7.30%
4.	Assumed rate of return	6.75%	6.75%	6.75%
5.	Expected investment income **2 × 4**	$232,416,587	$233,735,625	$233,735,625
6.	**Investment gain/(loss) 1 − 5**	**$120,479,238**	**$30,794,154**	**$19,061,174**

Contributions

Contributions for the year ended December 31, 2024 totaled $144.9 million, compared to the projected amount of $136.8 million. This resulted in a gain of $8.5 million for the year, when adjusted for timing.

In addition, the County made additional UAAL contributions of $3,149,766 during calendar year 2024. This amount, when adjusted for timing, resulted in a gain of $3,231,562 for the County.

Other experience

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation. These include:

- Mortality experience (more or fewer than expected deaths)
- The extent of turnover among members
- Retirement experience (earlier or later than projected)
- The number of disability retirements (more or fewer than projected)
- Salary increases (greater or smaller than projected)

The net loss from this other experience for the year ended December 31, 2024 amounted to $65.7 million, which is 1.7% of the actuarial accrued liability. See *Section 2, Subsection E* for a detailed development of the unfunded actuarial accrued liability.

D. Other changes impacting the actuarial accrued liability

Actuarial assumptions and methods

The assumption changes reflected in this report were based on the January 1, 2021 through December 31, 2023 Actuarial Experience Study dated October 17, 2024.

- This change increased the actuarial accrued liability by about $12.1 million (or a 0.31% increase) and increased the total normal cost by 0.72% of payroll (an increase of about 3.57%). The average employer contribution rate increase as a result of the assumption changes was 0.58% of payroll. The average employee contribution rate increase as a result of the assumption changes was 0.31% of payroll.

Details on actuarial assumptions and methods are in *Section 4, Exhibit 1*.

Plan provisions

There were no changes in plan provisions since the prior valuation.

A summary of plan provisions is in *Section 4, Exhibit 2*.

E. Unfunded actuarial accrued liability

Development of Unfunded Actuarial Accrued Liability for Year Ended December 31, 2024

	Line Description	Amount
1.	Unfunded actuarial accrued liability at beginning of year	$229,540,000
2.	Normal cost at middle of year	94,071,000
3.	Expected employer and member contributions	(136,770,000)
4.	Interest to end of year	14,191,000
5.	**Expected unfunded actuarial accrued liability at end of year**	**$201,032,000**
6.	**Changes due to:**	
a.	Investment return greater than expected, after asset smoothing	$(19,061,000)
b.	Actual contributions greater than expected under funding policy[1]	(8,454,000)
c.	Additional UAAL contributions for the County[2]	(3,232,000)
d.	Individual salary increases greater than expected	49,925,000
e.	Other net experience loss[3]	15,761,000
f.	Changes in actuarial assumptions	12,147,000
g.	**Total change**	**$47,086,000**
7.	**Unfunded actuarial accrued liability at end of year 5 + 6g**	**$248,118,000**

Note: The sum of items 6d and 6e equals the "Net loss from other experience" shown in *Section 2, Subsection C*.

[1] Includes impact of 18-month delay in rate implementation, phase-in (if any) of the impact of the changes in actuarial assumptions on the employer contribution rate and difference between actual and expected normal cost and UAAL contributions due to actual payroll different than expected during 2024.

[2] Includes interest at the assumed earnings rate of 6.75% on the County's total additional UAAL contributions of $3,149,766 from the respective payment dates to December 31, 2024.

[3] Other differences in actual versus expected experience including (but not limited to) mortality, retirement, disability and termination experience.

F. Recommended contribution

The recommended contribution is equal to the employer normal cost payment and a payment on the unfunded actuarial accrued liability. As of December 31, 2024, the average recommended employer contribution is 20.25% of payroll.

The Board sets the funding policy used to calculate the recommended contribution based on layered 20-year[1] amortization periods as a level percentage of payroll. See *Section 4, Exhibit 1* for further details on the funding policy. Based on this policy, there is no negative amortization and each amortization layer is fully funded in 20 years. As shown in the graphical projection of the UAAL amortization balances and payments found in *Section 3, Exhibit I*, before taking into consideration the deferred investment gains and/or losses that will be recognized in the next several valuations, the UAAL of the Plan is expected to be fully amortized by 2044, assuming all assumptions are realized and contributions are made in accordance with the funding policy.

The current funding policy is intended to fully fund the cost of the benefits and to allocate the cost of benefits reasonably and equitably over time while minimizing the volatility of employer contributions. The recommended contribution is expected to remain level as a percent of payroll, except when any current amortization layer is fully amortized and assuming there are no future actuarial gains or losses. Furthermore, the funded ratio is expected to increase as the UAAL is methodically funded by employer contributions.

The recommended contribution under the funding policy is a "Reasonable Actuarially Determined Contribution" as required under Actuarial Standard of Practice No. 4 Measuring Pension Obligations and Determining Pension Plan Costs or Contributions.

[1] Changes in UAAL due to actuarial gains or losses, changes in actuarial assumptions or methods, and plan amendments for each valuation are amortized over separate 20-year periods.

Average Recommended Employer Contribution Calculated as of December 31

($ in '000s)

Line Description	2024 Amount	2024 % of Projected Compensation	2023 Amount	2023 % of Projected Compensation
1. Total normal cost	$106,014	20.73%	$94,071	20.57%
2. Expected member normal cost contributions	46,392	9.07%	41,167	9.00%
3. Employer normal cost **1 – 2**	$59,622	11.66%	$52,904	11.57%
4. Actuarial accrued liability	3,925,728		$3,730,227	
5. Valuation value of assets	3,677,610		3,500,687	
6. Unfunded actuarial accrued liability **4 – 5**	$248,118		$229,540	
7. Payment on UAAL	$47,342	9.25%	$42,699	9.34%
8. Expected member contributions on UAAL[1]	3,395	0.66%	3,413	0.75%
9. Employer payment on UAAL **7 – 8**	$43,947	8.59%	$39,286	8.59%
10. Average recommended employer contribution 3 + 9	**$103,569**	**20.25%**	**$92,190**	**20.16%**
11. Projected payroll	$511,319		$457,288	

Note: Contributions are assumed to be paid at the middle of the year.

[1] Expected member contributions on the UAAL have been adjusted for refundability.

Reconciliation of average recommended employer contribution rate

Reconciliation from December 31, 2023 to December 31, 2024
($ in '000s)

	Item	Contribution Rate	Estimated Annual Dollar Amount[1]
1.	Average recommended employer contribution as of December 31, 2023	19.98%	$102,165
2.	**Changes due to:**		
a.	Investment return greater than expected, after asset smoothing	(0.27%)	(1,358)
b.	Actual contributions greater than expected under funding policy[2]	(0.12%)	(602)
c.	Additional UAAL contributions for the County	(0.04%)	(230)
d.	Individual salary increases greater than expected	0.70%	3,556
e.	Amortizing prior year's UAAL over a greater than expected increase in total payroll	(0.75%)	(3,835)
f.	Change in member demographics on normal cost	(0.05%)	(273)
g.	Other net experience loss	0.22%	1,176
h.	Changes in actuarial assumptions	0.58%	2,970
i.	**Total change**	**0.27%**	**$1,404**
3.	**Average recommended employer contribution as of December 31, 2024 1 + 2i**	**20.25%**	**$103,569**

[1] Based on December 31, 2024 projected annual compensation as shown on page 37.
[2] Includes impact of 18-month delay in rate implementation, phase-in (if any) of the impact of the changes in actuarial assumptions on the employer contribution rate and difference between actual and expected normal cost and UAAL contributions due to actual payroll different than expected during 2024.

Reconciliation of average recommended member contribution rate

Reconciliation from December 31, 2023 to December 31, 2024
Plan A Members

Item	General-County Without Sunset[1]	General-County With Sunset	General-Court	General-SVFD	Safety-County[2]	Safety-SVFD
1. Average recommended member contribution as of December 31, 2023[3]	12.46%	9.43%	9.90%	11.77%	13.05%	10.45%
2. Changes due to:						
a. Change in member demographics on normal cost	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
b. Changes in actuarial assumptions	0.33%	0.33%	0.27%	(0.03%)	0.10%	(0.04%)
c. **Total change**	**0.33%**	**0.33%**	**0.27%**	**(0.03%)**	**0.10%**	**(0.04%)**
3. Average recommended member contribution as of December 31, 2024[4] 1 + 2c	**12.79%**	**9.76%**	**10.17%**	**11.74%**	**13.15%**	**10.41%**

Reconciliation from December 31, 2023 to December 31, 2024
Plan B Members and Total Plan

Item	General-County	General-Court	General-SVFD	Safety-County	Safety-SVFD	Total Plan
1. Average recommended member contribution as of December 31, 2023	7.70%	7.70%	7.70%	13.58%	13.22%	9.70%
2. Changes due to:						
a. Change in member demographics on normal cost	(0.07%)	(0.07%)	(0.07%)	(0.46%)	0.32%	(0.07%)
b. Changes in actuarial assumptions	0.07%	0.07%	0.07%	1.66%	1.52%	0.31%
c. **Total change**	**0.00%**	**0.00%**	**0.00%**	**1.20%**	**1.84%**	**0.24%**
3. Average recommended member contribution as of December 31, 2024 1 + 2c	**7.70%**	**7.70%**	**7.70%**	**14.78%**	**15.06%**	**9.94%**

[1] Rates include an additional UAAL contribution rate of 3.03% of payroll, payable in accordance with bargaining unit agreements.
[2] Rates include an additional UAAL contribution rate of 3.00% of payroll, payable in accordance with bargaining unit agreements.
[3] The above rates are based on average entry age. The weighted average member contribution rates as of December 31, 2023 are 12.43% (General-County Without Sunset), 9.40% (General-County With Sunset), 9.81% (General-Court), 12.07% (General-SVFD), 12.69% (Safety-County) and 10.06% (Safety-SVFD).
[4] The above rates are based on average entry age. The weighted average member contribution rates as of December 31, 2024 are 12.70% (General-County Without Sunset), 9.67% (General-County With Sunset), 10.03% (General-Court), 12.12% (General-SVFD), 12.73% (Safety-County) and 10.08% (Safety-SVFD).

Recommended employer contribution rate

Recommended Employer Contribution Calculated as of December 31

($ in '000s)

Component by Plan and Employer	2024 Contribution Rate	2024 Estimated Annual Amount[1]	2023 Contribution Rate	2023 Estimated Annual Amount[1]
General Plan A-County Without Member UAAL Rate Sunset				
Normal cost	12.95%	$9,362	13.08%	$9,456
UAAL	5.16%	3,730	4.96%	3,586
Total contribution	**18.11%**	**$13,092**	**18.04%**	**$13,042**
General Plan A-County With Member UAAL Rate Sunset				
Normal cost	12.95%	$9,202	13.08%	$9,295
UAAL	8.18%	5,813	7.98%	5,671
Total contribution	**21.13%**	**$15,015**	**21.06%**	**$14,966**
General Plan A-Court				
Normal cost	14.07%	$862	14.24%	$872
UAAL	22.58%	1,383	22.20%	1,359
Total contribution	**36.65%**	**$2,245**	**36.44%**	**$2,231**
General Plan A-SVFD				
Normal cost	14.31%	$19	14.36%	$19
UAAL	4.11%	5	4.17%	6
Total contribution	**18.42%**	**$24**	**18.53%**	**$25**
General Plan B-County				
Normal cost	7.70%	$19,468	7.70%	$19,468
UAAL	8.18%	20,682	7.98%	20,176
Total contribution	**15.88%**	**$40,150**	**15.68%**	**$39,644**

[1] Based on December 31, 2024 projected annual compensation as shown on page 37.

Section 2: Actuarial Valuation Results

Component by Plan and Employer	2024 Contribution Rate	2024 Estimated Annual Amount[1] ($ in '000s)	2023 Contribution Rate	2023 Estimated Annual Amount[1] ($ in '000s)
General Plan B-Court				
Normal cost	7.70%	$726	7.70%	$726
UAAL	22.58%	2,130	22.20%	2,094
Total contribution	**30.28%**	**$2,856**	**29.90%**	**$2,820**
General Plan B-SVFD				
Normal cost	7.70%	$33	7.70%	$33
UAAL	4.11%	18	4.17%	18
Total contribution	**11.81%**	**$51**	**11.87%**	**$51**
Safety Plan A-County				
Normal cost	25.39%	$10,325	22.49%	$9,145
UAAL	9.08%	3,692	10.43%	4,241
Total contribution	**34.47%**	**$14,017**	**32.92%**	**$13,386**
Safety Plan A-SVFD				
Normal cost	33.56%	$1,765	30.13%	$1,585
UAAL	6.55%	344	7.29%	383
Total contribution	**40.11%**	**$2,109**	**37.42%**	**$1,968**
Safety Plan B-County				
Normal cost	14.78%	$7,144	13.58%	$6,564
UAAL	12.08%	5,839	13.43%	6,492
Total contribution	**26.86%**	**$12,983**	**27.01%**	**$13,056**
Safety Plan B-SVFD				
Normal cost	15.06%	$716	13.22%	$629
UAAL	6.55%	311	7.29%	347
Total contribution	**21.61%**	**$1,027**	**20.51%**	**$976**

[1] Based on December 31, 2024 projected annual compensation as shown on page 37.

Section 2: Actuarial Valuation Results

Component by Plan and Employer	2024 Contribution Rate	2024 Estimated Annual Amount[1] ($ in '000s)	2023 Contribution Rate	2023 Estimated Annual Amount[1] ($ in '000s)
Total Plan				
Normal cost	11.66%	$59,622	11.30%	$57,792
UAAL	8.59%	43,947	8.68%	44,373
Total contribution	**20.25%**	**$103,569**	**19.98%**	**$102,165**

Annual Compensation as of December 31, 2024 Projected for 2025 Calendar Year

($ in '000s)

Tier	Projected Annual Compensation
General Plan A-County Without Sunset	$ 72,294
General Plan A-County With Sunset	71,059
General Plan A-Court	6,123
General Plan A-SVFD	132
General Plan B-County	252,837
General Plan B-Court	9,431
General Plan B-SVFD	427
Safety Plan A-County	40,664
Safety Plan A-SVFD	5,259
Safety Plan B-County	48,338
Safety Plan B-SVFD	4,755
Total Plan	**$511,319**

[1] Based on December 31, 2024 projected annual compensation as shown above.

Breakdown of total normal cost for each type of benefit

Elements of Normal Cost
Plan A Members

Normal Cost Component	All General	Safety-County	Safety-SVFD	Total
Service retirements	81%	47%	49%	70%
Vested termination and ordinary withdrawals	14%	7%	4%	11%
Non-service and service connected disability	4%	46%	47%	18%
Non-service and service connected death	1%	0%	0%	1%
Total employer plus employee normal cost	**100%**	**100%**	**100%**	**100%**

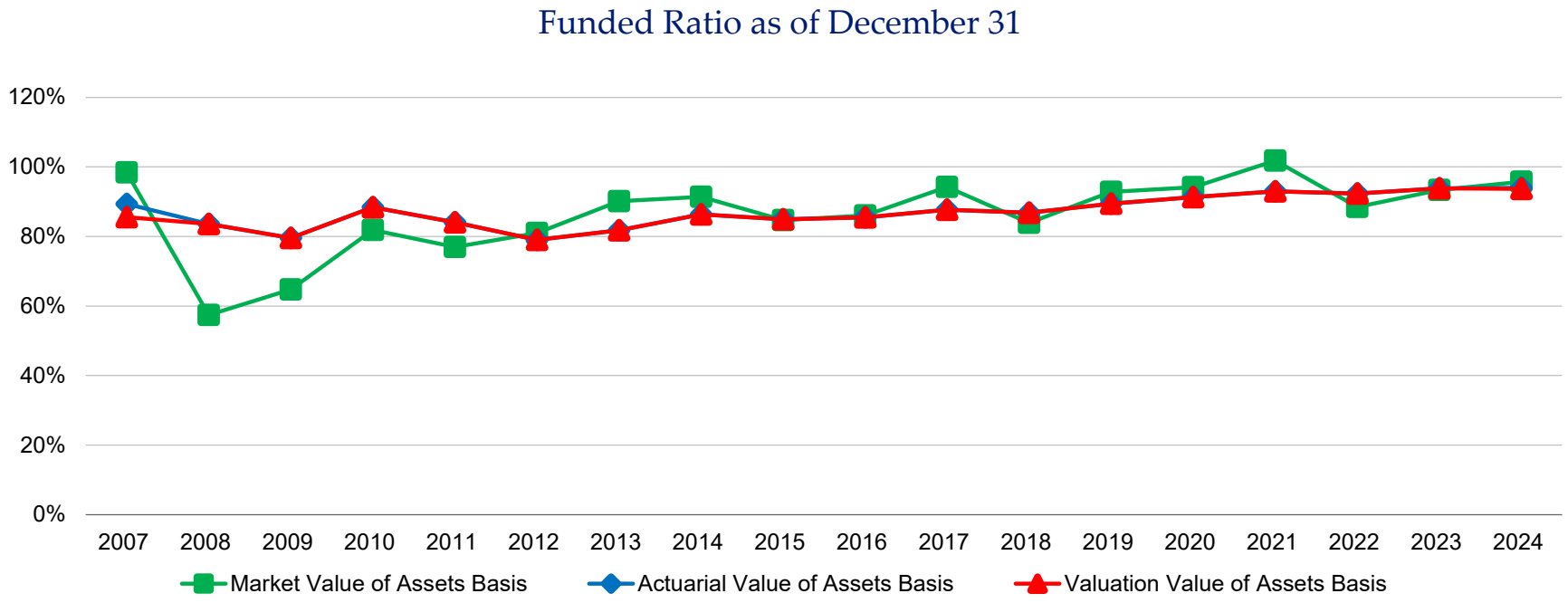
Elements of Normal Cost
Plan B Members

Normal Cost Component	All General	Safety-County	Safety-SVFD	Total
Service retirements	81%	37%	37%	68%
Vested termination and ordinary withdrawals	12%	8%	8%	11%
Non-service and service connected disability	6%	55%	54%	20%
Non-service and service connected death	1%	0%	1%	1%
Total employer plus employee normal cost	**100%**	**100%**	**100%**	**100%**

G. Funded status

A commonly reported piece of information regarding the Plan's financial status is the funded ratio. These ratios compare the market, actuarial and valuation value of assets to the actuarial accrued liability of the Plan. Higher ratios indicate a relatively well-funded plan while lower ratios may indicate recent changes to actuarial assumptions, funding of the plan below actuarial requirements, poor asset performance, or a variety of other causes.

The funded status measures shown in this valuation are appropriate for assessing the need for or amount of future contributions. However, they are not necessarily appropriate for assessing the sufficiency of Plan assets to cover the estimated cost of settling the Plan's benefit obligations. As the chart below shows, the measures are different depending on whether the market, actuarial, or valuation value of assets is used.



Schedule of Funding Progress

Actuarial Valuation as of December 31	Valuation Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) – (a)	Funded Ratio (a) / (b)	Projected Compensation (c)	UAAL as a % of Projected Compensation [(b) – (a)] / (c)
2015	$2,289,057,000	$2,694,979,000	$405,922,000	84.9%	$339,518,000	119.6%
2016	2,399,171,000	2,807,398,000	408,227,000	85.5%	356,129,000	114.6%
2017	2,557,299,000	2,916,856,000	359,557,000	87.7%	369,751,000	97.2%
2018	2,667,345,000	3,072,077,000	404,732,000	86.8%	378,159,000	107.0%
2019	2,811,292,000	3,143,323,000	332,031,000	89.4%	378,159,000	87.8%
2020	2,981,688,000	3,264,403,000	282,715,000	91.3%	400,564,000	70.6%
2021	3,215,505,000	3,460,051,000	244,546,000	92.9%	408,279,000	59.9%
2022	3,311,174,000	3,582,766,000	271,592,000	92.4%	423,272,000	64.2%
2023	3,500,687,000	3,730,227,000	229,540,000	93.8%	457,288,000	50.2%
2024	3,677,610,000	3,925,728,000	248,118,000	93.7%	511,319,000	48.5%

H. Actuarial balance sheet

An overview of the Plan's funding is given by an actuarial balance sheet. In this approach, first the amount and timing of all future payments that will be made by the Plan for current members is determined. Then these payments are discounted at the valuation interest rate to the date of the valuation, thereby determining the present value, referred to as the "liability" of the Plan.

Second, this liability is compared to the assets. The "assets" for this purpose include the net amount of assets already accumulated by the Plan, the present value of future member contributions, the present value of future employer normal cost contributions, and the present value of future employer amortization payments for the unfunded actuarial accrued liability.

Actuarial Balance Sheet as of December 31, 2024

($ in '000s)

Line Description	Basic	COLA	Total
Liabilities			
Present value of benefits for retired members and beneficiaries	$2,428,869	$21,814	$2,450,683
Present value of benefits for inactive members[1]	147,065	0	147,065
Present value of benefits for active members	2,084,934	0	2,084,934
Total liabilities	**$4,660,868**	**$21,814**	**$4,682,682**
Current and Future Assets			
Total valuation value of assets	$3,655,796	$21,814	$3,677,610
Present value of future contributions by members[2]	366,756	0	366,756
Present value of future employer contributions for:			
• Entry age normal cost	390,198	0	390,198
• Unfunded actuarial accrued liability	248,118	0	248,118
Total of current and future assets	**$4,660,868**	**$21,814**	**$4,682,682**

[1] Includes inactive members due a refund of member contributions.
[2] Before reflecting supplemental contributions payable by certain members for the UAAL.

I. Risk

Because the actuarial valuation results are dependent on a fixed set of assumptions and data as of a specific date, there is risk that emerging results may differ, perhaps significantly, as actual experience is fluid and will not exactly track current assumptions. This potential divergence may have a significant impact on the future financial condition of the plan.

This report does not contain a detailed analysis of the potential range of future measurements, but does include a concise discussion of some of the primary risks that may affect the Plan's future financial condition. We recommend a more detailed assessment of the risks to provide the Board with a better understanding of the risks inherent in the Plan that can inform both financial preparation and future decision making. This assessment would enable us to work with the Board to highlight and illustrate particular risks or potential future outcomes they may be interested in discussing and could include scenario testing, sensitivity testing, stress testing and stochastic modeling. As noted in the valuation highlights section of this report the results of our more detailed risk assessment will be provided in a separate stand-alone report.

This section provides descriptions and basic assessments of the primary risks that are likely to have an ongoing influence on the Plan's financial health, as well as a discussion of historical trends and maturity measures:

Risk assessments

- **Asset/Liability Mismatch Risk** (the potential that future plan experience does not affect asset and liability values in the same way, causing them to diverge)

  The most significant asset/liability mismatch risk to the Plan is investment risk, as discussed below. In fact, investment risk has the potential to impact asset/liability mismatch in two ways. The first is evident in annual valuations; when asset values deviate from assumptions they are typically independent from liability changes. The second can be caused when systemic asset deviations from assumptions may signal the need for an assumption change, which causes liability values and contribution rates to move in the opposite direction from any change in the expected experience of asset growth rates.

  Asset/liability mismatch can also be caused by demographic assumption risk such as longevity, which affects liabilities but has no impact on asset levels. This risk is also discussed below.

- **Investment Risk** (the risk that investment returns will be different than expected)

  The investment return assumption is a long-term, static assumption for valuation purposes even though in reality market experience can be quite volatile in any given year. That volatility can cause significant changes in the financial condition of the Plan, affecting both funded status and contribution rates. The inherent year-to-year volatility is reduced by smoothing through the valuation value of assets, however investment experience can still have a sizable impact. As discussed in *Section 2, Subsection J,*

Volatility Ratios, on page 46, a 1% asset gain or loss (relative to the assumed investment return) translates to about 7.3% of one-year's payroll. Since actuarial gains and losses are amortized over 20 years, there would be a 0.5% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The year-by-year market value rate of return over the last 10 years has ranged from a low of -7.84% to a high of 17.09%.

- **Longevity Risk** (the risk that mortality experience will be different than expected)

  The actuarial valuation includes current life expectancy assumptions and an expectation of future improvement in life expectancy, which are significant assumptions given the relatively long duration of liabilities for pension plans. Emerging plan experience that does not match these expectations will result in increases or decreases in the actuarially determined contribution over time. This risk can be reduced by using tables appropriate for the Plan (public experience tables) that are weighted by benefit levels, and by using generational mortality projections. The Board has adopted mortality tables based on this methodology.

- **Other Risks**

  In addition to longevity, the valuation includes a variety of other assumptions that are unlikely to match future experience exactly. One example is projected salary scales over time. As salary is central to the determination of benefits paid in retirement, deviations from the projected salary scales could have a material impact on the benefits anticipated for each member. Examples of other demographic assumptions include retirement, termination and disability assumptions, and will likely vary in significance for different groups (for example, disability assumptions are typically more significant for Safety groups).

Some plans also carry significant contribution risk, defined as the potential for actual future contributions deviating from expected future contributions. However, the employers have a proven track-record of making the actuarially determined contributions based on the Board's Actuarial Funding Policy, so contribution risk is minimal.

Evaluation of historical trends

Past experience can help demonstrate the sensitivity of key results to the Plan's actual experience. Over the past ten years:

- The funded percentage on the valuation value of assets basis has increased from 84.9% to 93.7%. This is primarily due to contributions made to amortize the UAAL (i.e., amortizing each layer of UAAL over 20 years as a level percentage of pay) and average recent years' investment return on a smoothed basis greater than the assumption. For a more detailed history see *Section 2, Subsection G, Funded status* starting on page 39.
- The average geometric investment return on the valuation value of assets over the last 10 years was 7.89%. This includes a high of 10.36% and a low of 5.50%. The average over the last five years is 7.99%. For more details see the *Section 2, Subsection B, Historical investment returns* on page 25.

- Beyond investment experience, the primary source of new UAAL was the strengthening of assumptions through multiple assumption changes. For example, the assumption changes in:
  - 2015 changed the discount rate from 7.50% to 7.25% (as well as various other changes), adding $94 million in unfunded liability;
  - 2018 changed the discount rate from 7.25% to 7.00% (as well as various other changes) adding $32 million in unfunded liability;
  - 2021 changed the discount rate from 7.00% to 6.75% (as well as various other changes) adding $97 million in unfunded liability; and
  - 2024 includes changes in demographic assumptions and methodology adding $12 million in unfunded liability.

  For more details on unfunded liability changes see *Section 3, Exhibit H, Table of amortization bases* starting on page 63. A graphical representation of historical changes in UAAL by source will be included in the stand-alone risk assessment report.
- The Plan's funding policy effectively deals with these unfunded liabilities over time. This can be seen most clearly in *Section 3, Exhibit I, Projection of UAAL balances and payments* starting on page 77.

Maturity measures

In the last 10 years the ratio of members in pay status to active participants has increased from 1.14 to 1.32. An increased ratio indicates that the plan has grown in maturity over time. This is to be expected, but is also informative for understanding plan sensitivity to particular risks. For more details see *Section 2, Subsection A, Member information* on page 18.

As pension plans mature, the cash needed to fulfill benefit obligations will increase over time. Therefore, cash flow projections and analysis should be performed to assure that the Plan's asset allocation is aligned to meet emerging pension liabilities. Over the past year, benefits paid were $76 million more than contributions received. Plans with high levels of negative cash flows may have a need for a larger allocation to income generating assets, which can create a drag on investment return. However, the Plan currently has a low level of negative cash flow and is relatively well funded (at a 93.7% funded ratio). For more details on historical cash flows see *Section 2, Subsection B, Financial information* on page 22.

A further discussion of plan maturity measures and how they relate to changes in assets and liabilities is included in *Section 2, Subsection J, Volatility ratios* on page 46.

Low-Default-Risk Obligation Measure (LDROM)

In December 2021, the Actuarial Standards Board issued a revision of Actuarial Standard of Practice No. 4 (ASOP 4) *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*. One of the revisions to ASOP 4 requires the disclosure of a Low-Default-Risk Obligation Measure (LDROM) when performing a funding valuation. The LDROM presented in this report is

calculated using the same methodology and assumptions used to determine the AAL used for funding, except for the discount rate. The LDROM is required to be calculated using "a discount rate…derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future."

The LDROM is a calculation assuming a plan's assets are invested in an all-bond portfolio, generally lowering expected long-term investment returns. The discount rate selected and used for this purpose is the Bond Buyer General Obligation 20-year Municipal Bond Index Rate, published at the end of each week. The last published rate in December of the measurement period, by The Bond Buyer, is 4.08% for use effective December 31, 2024. This is the rate used to determine the discount rate for valuing reported public pension plan liabilities in accordance with Governmental Accounting Standards when plan assets are projected to be insufficient to make projected benefit payments, and the 20-year period reasonably approximates the duration of plan liabilities. The LDROM is not used to determine a plan's funded status or actuarially determined contribution rates. The plan's expected return on assets, currently 6.75%, is used for these calculations.

As of December 31, 2024, the LDROM for the Plan is $5.4 billion.[1] The difference between the Plan's AAL of $3.9 billion and the LDROM can be thought of as the increase in the AAL if the entire portfolio were invested in low-default-risk securities. Alternatively, this difference could also be viewed as representing the expected savings from investing in the Plan's diversified portfolio compared to investing only in low-default-risk securities.

ASOP 4 requires commentary to help the intended user understand the significance of the LDROM with respect to the funded status of the plan, plan contributions, and the security of member benefits. In general, if plan assets were invested exclusively in low-default-risk securities, the funded status would be lower and the actuarially determined contribution would be higher. While investing in a portfolio with low-default-risk securities may be more likely to reduce investment volatility and the volatility of employer contributions, it also may be more likely to result in higher employer contributions or lower benefits.

[1] For comparison purposes, as of December 31, 2023, the LDROM was $5.7 billion based on a discount rate of 3.26%, while the Plan's actuarial accrued liability was $3.7 billion.

J. Volatility ratios

Retirement plans are subject to volatility in the level of required contributions. This volatility tends to increase as retirement plans become more mature.

The Asset Volatility Ratio (AVR), which is equal to the market value of assets divided by total projected compensation, provides an indication of the potential contribution volatility for any given level of investment volatility. A higher AVR indicates that the plan is subject to a greater level of contribution volatility. This is a current measurement since it is based on the current level of assets.

The current AVR is about 7.3. This means that a 1% asset gain or loss (relative to the assumed investment return) translates to about 7.3% of one-year's payroll. Since actuarial gains and losses are amortized over 20 years, there would be a 0.5% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The Liability Volatility Ratio (LVR), which is equal to the actuarial accrued liability divided by total projected compensation, provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. This is because, over an extended period of time, the plan's assets should track the plan's liabilities. For example, if a plan is 50% funded on a market value basis, the liability volatility ratio would be double the asset volatility ratio and the plan sponsor should expect contribution volatility to increase over time as the plan becomes better funded.

The LVR also indicates how volatile contributions will be in response to changes in the actuarial accrued liability due to actual experience or to changes in actuarial assumptions. The current total Plan LVR is about 7.7 but is 6.9 for General compared to 10.7 for Safety. This means, for example, that assumption changes will have a greater impact on employer contribution rates for Safety than for General. The total Plan LVR is about 5% higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long term.

Volatility Ratios

Asset Volatility Ratio (AVR) versus Liability Volatility Ratio (LVR)

As of December 31	AVR General	AVR Safety	AVR Total	LVR General	LVR Safety	LVR Total
2015	6.3	8.5	6.7	7.4	10.1	7.9
2016	6.3	8.8	6.8	7.3	10.2	7.9
2017	6.9	9.5	7.4	7.3	10.1	7.9
2018	6.3	8.8	6.8	7.6	10.4	8.1
2019	7.1	10.3	7.7	7.7	10.9	8.3
2020	7.1	10.0	7.7	7.5	10.5	8.1
2021	7.9	11.7	8.6	7.7	11.5	8.5
2022	6.8	10.4	7.5	7.7	11.8	8.5
2023	6.8	11.1	7.6	7.3	12.0	8.2
2024	6.6	10.4	7.3	6.9	10.7	7.7

Section 3: Supplemental Information

Exhibit A: Table of plan demographics

Total Plan — Demographics as of December 31

Demographic Data by Status	2024	2023	Change
Active members			
• Number	4,482	4,242	5.7%
• Average age	44.3	44.8	(0.5)
• Average years of service	9.0	9.3	(0.3)
• Total projected compensation[1]	$511,319,100	$457,288,313	11.8%
• Average projected compensation	$114,083	$107,800	5.8%
• Account balances	$554,089,368	$534,548,081	3.7%
• Total active vested members	2,796	2,752	1.6%
Inactive members[2]			
• Number	1,790	1,765	1.4%
• Average age	45.2	45.0	0.2
Retired members			
• Number	4,498	4,384	2.6%
• Average age	71.3	70.9	0.4
• Average monthly benefit	$3,454	$3,374	2.4%
Disabled members			
• Number	703	689	2.0%
• Average age	64.4	64.3	0.1
• Average monthly benefit	$3,079	$2,950	4.4%
Beneficiaries			
• Number	710	687	3.3%
• Average age	72.0	71.6	0.4
• Average monthly benefit	$1,592	$1,553	2.5%

[1] Calculated by increasing full-time equivalent calendar year pensionable salary by the assumed salary scale.
[2] Includes inactive members due a refund of member contributions.

Section 3: Supplemental Information

General Plan A — Demographics as of December 31

Demographic Data by Status	2024	2023	Change
Active members			
• Number	1,176	1,283	(8.3%)
• Average age	52.7	52.3	0.4
• Average years of service	17.9	17.3	0.6
• Total projected compensation[1]	$149,608,545	$151,503,501	(1.3%)
• Average projected compensation	$127,218	$118,085	7.7%
• Account balances	$311,246,233	$316,383,037	(1.6%)
• Total active vested members	1,159	1,267	(8.5%)
Inactive members[2]			
• Number	637	674	(5.5%)
• Average age	50.5	50.2	0.3
Retired members[3]			
• Number	3,724	3,662	1.7%
• Average age	72.2	71.8	0.4
• Average monthly benefit	$3,278	$3,186	2.9%
Disabled members[3]			
• Number	302	302	0.0%
• Average age	70.0	69.9	0.1
• Average monthly benefit	$1,997	$1,946	2.6%
Beneficiaries[4]			
• Number	549	536	2.4%
• Average age	73.3	72.9	0.4
• Average monthly benefit	$1,466	$1,436	2.1%

[1] Calculated by increasing full-time equivalent calendar year pensionable salary by the assumed salary scale.
[2] Includes inactive members due a refund of member contributions.
[3] Out of the 4,026 retired and disabled members, there are 762 members who are receiving benefits under the Pre-Plan A provisions, with an average age of 81.1 and an average benefit of $1,552.
[4] Out of the 549 beneficiaries, there are 96 beneficiaries who are receiving benefits under the Pre-Plan A provisions, with an average age of 77.7 and an average benefit of $1,086. However, we note that 411 General Plan A beneficiaries are missing a date of retirement in the valuation data and therefore we are unable to determine their Pre-Plan A status.

Section 3: Supplemental Information

General Plan B — Demographics as of December 31

Demographic Data by Status	2024	2023	Change
Active members			
• Number	2,567	2,297	11.8%
• Average age	41.7	41.7	0.0
• Average years of service	4.7	4.5	0.2
• Total projected compensation[1]	$262,694,493	$220,674,825	19.0%
• Average projected compensation	$102,335	$96,071	6.5%
• Account balances	$116,005,462	$94,414,884	22.9%
• Total active vested members	1,135	988	14.9%
Inactive members[2]			
• Number	887	818	8.4%
• Average age	42.5	42.0	0.5
Retired members			
• Number	128	100	28.0%
• Average age	67.7	67.0	0.7
• Average monthly benefit	$1,180	$1,137	3.8%
Disabled members			
• Number	6	6	0.0%
• Average age	59.6	58.6	1.0
• Average monthly benefit	$2,262	$2,262	0.0%
Beneficiaries			
• Number	4	2	100.0%
• Average age	64.1	56.6	7.5
• Average monthly benefit	$1,342	$502	167.3%

[1] Calculated by increasing full-time equivalent calendar year pensionable salary by the assumed salary scale.
[2] Includes inactive members due a refund of member contributions.

Section 3: Supplemental Information

Safety Plan A — Demographics as of December 31

Demographic Data by Status	2024	2023	Change
Active members			
• Number	303	327	(7.3%)
• Average age	47.4	47.0	0.4
• Average years of service	17.2	17.1	0.1
• Total projected compensation[1]	$45,923,028	$46,167,807	(0.5%)
• Average projected compensation	$151,561	$141,186	7.3%
• Account balances	$98,300,685	$101,100,598	(2.8%)
• Total active vested members	300	322	(6.8%)
Inactive members[2]			
• Number	139	153	(9.2%)
• Average age	47.4	47.0	0.4
Retired members[3]			
• Number	636	615	3.4%
• Average age	66.8	66.5	0.3
• Average monthly benefit	$4,967	$4,874	1.9%
Disabled members[3]			
• Number	368	362	1.7%
• Average age	61.4	61.1	0.3
• Average monthly benefit	$3,886	$3,730	4.2%
Beneficiaries[4]			
• Number	157	149	5.4%
• Average age	67.7	67.1	0.6
• Average monthly benefit	$2,040	$1,986	2.7%

[1] Calculated by increasing full-time equivalent calendar year pensionable salary by the assumed salary scale.
[2] Includes inactive members due a refund of member contributions.
[3] Out of the 1,004 retired and disabled members, there are 320 members who are receiving benefits under the Pre-Plan A provisions, with an average age of 73.5 and an average benefit of $3,175.
[4] Out of the 157 beneficiaries, there are 32 beneficiaries who are receiving benefits under the Pre-Plan A provisions, with an average age of 76.7 and an average benefit of $2,145. However, we note that 109 Safety Plan A beneficiaries are missing a date of retirement in the valuation data and therefore we are unable to determine their Pre-Plan A status.

Section 3: Supplemental Information

Safety Plan B — Demographics as of December 31

Demographic Data by Status	2024	2023	Change
Active members			
• Number	436	335	30.1%
• Average age	34.8	35.6	(0.8)
• Average years of service	4.2	4.5	(0.3)
• Total projected compensation[1]	$53,093,034	$38,942,180	36.3%
• Average projected compensation	$121,773	$116,245	4.8%
• Account balances	$28,536,988	$22,649,562	26.0%
• Total active vested members	202	175	15.4%
Inactive members[2]			
• Number	127	120	5.8%
• Average age	34.6	33.9	0.7
Retired members			
• Number	10	7	42.9%
• Average age	63.3	63.6	(0.3)
• Average monthly benefit	$1,822	$1,660	9.8%
Disabled members			
• Number	27	19	42.1%
• Average age	43.1	39.8	3.3
• Average monthly benefit	$4,373	$4,280	2.2%
Beneficiaries			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit	N/A	N/A	N/A

[1] Calculated by increasing full-time equivalent calendar year pensionable salary by the assumed salary scale.
[2] Includes inactive members due a refund of member contributions.

Exhibit B: Distribution of active members

Total Plan
Active Counts and Average Projected Compensation by Age and Years of Service
as of December 31, 2024

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	99	98	1	—	—	—	—	—	—	—
	$89,898	$89,493	$129,625	—	—	—	—	—	—	—
25–29	405	368	37	—	—	—	—	—	—	—
	$90,617	$89,147	$105,240	—	—	—	—	—	—	—
30–34	590	391	176	23	—	—	—	—	—	—
	$103,277	$98,808	$110,400	$124,729	—	—	—	—	—	—
35–39	661	298	235	114	14	—	—	—	—	—
	$113,437	$103,852	$119,057	$125,486	$125,011	—	—	—	—	—
40–44	676	229	173	145	110	19	—	—	—	—
	$117,188	$106,606	$114,868	$125,198	$130,122	$129,847	—	—	—	—
45–49	592	176	121	110	108	66	11	—	—	—
	$119,529	$102,311	$120,042	$124,541	$131,312	$130,547	$157,482	—	—	—
50–54	520	99	83	94	82	90	60	11	1	—
	$126,257	$108,025	$120,772	$131,775	$138,538	$133,899	$125,843	$131,904	$135,559	—
55–59	482	97	79	84	81	62	54	20	5	—
	$123,201	$114,690	$119,611	$120,771	$125,193	$117,470	$142,967	$138,437	$150,227	—
60–64	299	62	67	46	50	39	25	6	4	—
	$121,429	$115,265	$116,637	$128,183	$122,594	$127,851	$114,810	$164,030	$119,878	—
65–69	127	28	39	20	17	12	7	3	—	1
	$117,772	$108,559	$116,965	$116,571	$136,774	$125,498	$110,030	$87,283	—	$161,155
70 and over	31	10	6	3	4	3	5	—	—	—
	$113,634	$133,185	$122,000	$100,347	$81,053	$92,975	$110,927	—	—	—
Total	**4,482**	**1,856**	**1,017**	**639**	**466**	**291**	**162**	**40**	**10**	**1**
	$114,083	**$100,709**	**$116,432**	**$125,333**	**$129,882**	**$127,795**	**$130,853**	**$136,643**	**$136,621**	**$161,155**

General Plan A
Active Counts and Average Projected Compensation by Age and Years of Service
as of December 31, 2024

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25–29	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
30–34	2	—	—	2	—	—	—	—	—	—
	$132,844	—	—	$132,844	—	—	—	—	—	—
35–39	65	4	11	42	8	—	—	—	—	—
	$128,432	$135,489	$157,955	$122,411	$115,922	—	—	—	—	—
40–44	172	17	13	59	71	12	—	—	—	—
	$124,943	$139,862	$133,816	$123,034	$123,462	$112,346	—	—	—	—
45–49	200	10	11	54	78	42	5	—	—	—
	$123,967	$111,656	$147,346	$128,391	$123,002	$115,538	$135,242	—	—	—
50–54	253	5	10	46	70	66	47	8	1	—
	$131,533	$164,710	$132,968	$137,015	$138,367	$125,052	$122,604	$123,096	$135,559	—
55–59	266	6	12	49	74	55	46	20	4	—
	$126,958	$174,762	$145,109	$119,549	$123,922	$115,547	$136,908	$138,437	$132,821	—
60–64	157	11	7	25	45	38	23	5	3	—
	$128,557	$149,582	$136,869	$140,257	$121,901	$127,881	$110,341	$171,129	$111,680	—
65–69	48	—	2	7	16	12	7	3	—	1
	$126,763	—	$152,841	$131,634	$134,896	$125,498	$110,030	$87,283	—	$161,155
70 and over	13	1	—	1	3	3	5	—	—	—
	$107,260	$220,974	—	$72,799	$89,016	$92,975	$110,927	—	—	—
Total	**1,176**	**54**	**66**	**285**	**365**	**228**	**133**	**36**	**8**	**1**
	$127,218	**$143,975**	**$142,919**	**$127,229**	**$126,176**	**$120,411**	**$124,805**	**$135,305**	**$125,236**	**$161,155**

General Plan B
Active Counts and Average Projected Compensation by Age and Years of Service
as of December 31, 2024

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	53	53	—	—	—	—	—	—	—	—
	$76,302	$76,302	—	—	—	—	—	—	—	—
25–29	320	296	24	—	—	—	—	—	—	—
	$85,040	$84,616	$90,269	—	—	—	—	—	—	—
30–34	459	316	133	10	—	—	—	—	—	—
	$97,528	$94,322	$104,257	$109,318	—	—	—	—	—	—
35–39	472	251	179	42	—	—	—	—	—	—
	$105,519	$99,255	$111,719	$116,527	—	—	—	—	—	—
40–44	382	190	138	53	1	—	—	—	—	—
	$106,355	$101,264	$109,572	$116,540	$89,822	—	—	—	—	—
45–49	295	152	100	42	1	—	—	—	—	—
	$107,341	$99,498	$115,257	$116,844	$108,580	—	—	—	—	—
50–54	197	88	69	39	1	—	—	—	—	—
	$110,770	$104,147	$118,103	$112,274	$128,943	—	—	—	—	—
55–59	169	84	57	27	1	—	—	—	—	—
	$108,318	$107,920	$107,244	$112,691	$84,844	—	—	—	—	—
60–64	130	51	59	18	2	—	—	—	—	—
	$110,614	$107,863	$113,585	$108,925	$108,329	—	—	—	—	—
65–69	73	26	34	13	—	—	—	—	—	—
	$110,881	$109,025	$113,225	$108,461	—	—	—	—	—	—
70 and over	17	9	5	2	1	—	—	—	—	—
	$116,070	$123,431	$115,384	$114,121	$57,164	—	—	—	—	—
Total	**2,567**	**1,516**	**798**	**246**	**7**	**—**	**—**	**—**	**—**	**—**
	$102,335	**$96,207**	**$110,360**	**$114,194**	**$98,002**	**—**	**—**	**—**	**—**	**—**

Safety Plan A
Active Counts and Average Projected Compensation by Age and Years of Service
as of December 31, 2024

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25–29	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
30–34	5	1	1	3	—	—	—	—	—	—
	$143,627	$115,408	$159,930	$147,599	—	—	—	—	—	—
35–39	31	3	7	15	6	—	—	—	—	—
	$145,595	$131,556	$142,952	$153,023	$137,131	—	—	—	—	—
40–44	84	4	11	24	38	7	—	—	—	—
	$147,580	$153,615	$148,724	$148,731	$143,627	$159,849	—	—	—	—
45–49	80	4	5	12	29	24	6	—	—	—
	$154,044	$158,187	$151,998	$136,017	$154,447	$156,812	$176,016	—	—	—
50–54	60	—	1	8	11	24	13	3	—	—
	$155,028	—	$146,658	$194,708	$140,499	$158,230	$137,551	$155,391	—	—
55–59	31	1	1	7	6	7	8	—	1	—
	$160,462	$134,101	$272,344	$158,847	$147,593	$132,583	$177,807	—	$219,848	—
60–64	9	—	—	1	3	1	2	1	1	—
	$142,823	—	—	$125,777	$142,503	$126,707	$166,208	$128,532	$144,472	—
65–69	3	1	1	—	1	—	—	—	—	—
	$136,602	$101,815	$141,162	—	$166,830	—	—	—	—	—
70 and over	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
Total	**303**	**14**	**27**	**70**	**94**	**63**	**29**	**4**	**2**	**—**
	$151,561	**$142,371**	**$152,471**	**$153,361**	**$146,649**	**$154,520**	**$158,591**	**$148,676**	**$182,160**	**—**

Safety Plan B
Active Counts and Average Projected Compensation by Age and Years of Service
as of December 31, 2024

Age	Total	0–4 Years	5–9 Years	10–14 Years	15–19 Years	20–24 Years	25–29 Years	30–34 Years	35–39 Years	40 Years and Over
Under 25	46	45	1	—	—	—	—	—	—	—
	$105,564	$105,029	$129,625	—	—	—	—	—	—	—
25–29	85	72	13	—	—	—	—	—	—	—
	$111,614	$107,774	$132,879	—	—	—	—	—	—	—
30–34	124	74	42	8	—	—	—	—	—	—
	$122,454	$117,740	$128,675	$133,390	—	—	—	—	—	—
35–39	93	40	38	15	—	—	—	—	—	—
	$132,427	$127,462	$137,962	$131,644	—	—	—	—	—	—
40–44	38	18	11	9	—	—	—	—	—	—
	$123,803	$121,136	$125,051	$127,612	—	—	—	—	—	—
45–49	17	10	5	2	—	—	—	—	—	—
	$116,408	$113,362	$123,723	$113,352	—	—	—	—	—	—
50–54	10	6	3	1	—	—	—	—	—	—
	$125,254	$117,670	$132,894	$147,837	—	—	—	—	—	—
55–59	16	6	9	1	—	—	—	—	—	—
	$145,746	$146,162	$146,966	$132,281	—	—	—	—	—	—
60–64	3	—	1	2	—	—	—	—	—	—
	$152,887	—	$155,081	$151,791	—	—	—	—	—	—
65–69	3	1	2	—	—	—	—	—	—	—
	$122,778	$103,201	$132,567	—	—	—	—	—	—	—
70 and over	1	—	1	—	—	—	—	—	—	—
	$155,081	—	$155,081	—	—	—	—	—	—	—
Total	**436**	**272**	**126**	**38**	**—**	**—**	**—**	**—**	**—**	**—**
	$121,773	**$115,064**	**$133,292**	**$131,597**	**—**	**—**	**—**	**—**	**—**	**—**

Exhibit C: Reconciliation of member data

Line Description	Active Members	Inactive Members[1]	Retired Members	Disabled Members	Beneficiaries	Total
Number as of December 31, 2023	4,242	1,765	4,384	689	687	11,767
New members	548	39	1	0	46	634
Terminations with vested rights	(113)	113	0	0	0	0
Contribution refunds	(51)	(43)	0	0	0	(94)
Retirements	(139)	(51)	190	0	0	0
New disabilities	(25)	(3)	(1)	29	0	0
Return to work	27	(25)	(2)	0	0	0
Died with or without beneficiary	(7)	(4)	(72)	(15)	(25)	(123)
Data adjustments	0	(1)	(2)	0	2	(1)
Number as of December 31, 2024	**4,482**	**1,790**	**4,498**	**703**	**710**	**12,183**

[1] Includes inactive members due a refund of member contributions.

Exhibit D: Summary statement of income and expenses on a market value basis

Line Description	Year Ended December 31, 2024	Year Ended December 31, 2023
Contribution income		
• Employer contributions	$93,868,662	$78,412,318
• Member contributions	54,205,192	52,594,824
– **Net contribution income**	**$148,073,854**	**$131,007,142**
Investment income		
• Investment, dividends and other income	$74,088,767	$70,802,599
• Asset appreciation	309,215,774	348,793,160
• Less investment and administrative fees	(30,408,716)	(23,673,011)
– **Net investment income**	**$352,895,825**	**$395,922,748**
Total income available for benefits	**$500,969,679**	**$526,929,890**
Less benefit payments		
• Benefits paid	$(221,361,415)	$(212,793,021)
• Refund of contributions	(2,586,962)	(2,622,923)
– **Net benefit payments**	**$(223,948,377)**	**$(215,415,944)**
Change in market value of assets	**$277,021,302**	**$311,513,946**
Net assets at market value at the beginning of the year	**$3,481,145,956**	**$3,169,632,010**
Net assets at market value at the end of the year	**$3,758,167,258**	**$3,481,145,956**

Exhibit E: Summary statement of plan assets

Line Description	Year Ended December 31, 2024	Year Ended December 31, 2023
Cash equivalents	**$196,199,768**	**$92,342,061**
Accounts receivable		
• Securities sold	$143,747,781	$84,306,223
• Accrued interest and dividends	5,640,472	8,077,800
• Employer contributions	1,493,280	3,377,683
• Other receivable	23,109	63,726
– **Total accounts receivable**	**$150,904,642**	**$95,825,432**
Investments		
• Domestic and international stocks	$2,199,088,962	$2,027,716,393
• Domestic and international bonds	587,538,494	550,854,637
• Real assets	924,514,725	899,250,340
• Securities lending collateral	135,225,568	93,200,475
• Miscellaneous	14,679,165	25,069,432
– **Total investments at market value**	**$3,861,046,914**	**$3,596,091,277**
Other assets	1,944,767	1,830,702
Total assets	**$4,210,096,091**	**$3,786,089,472**
Accounts payable		
• Accounts payable and other liabilities	$(316,703,265)	$(211,743,041)
• Securities lending liability	(135,225,568)	(93,200,475)
– **Total accounts payable**	**$(451,928,833)**	**$(304,943,516)**
Net assets at market value	**$3,758,167,258**	**$3,481,145,956**
Net assets at actuarial value	**$3,689,342,520**	**$3,500,687,264**
Net assets at valuation value	**$3,677,609,540**	**$3,500,687,264**

Exhibit F: Summary of reported reserve information

Reserve Information as of December 31, 2024

Line Description	Before True-Up	After True-Up	Transfer Amount
Member Reserves			
• General	$503,732,411	$503,732,411	$0
• Safety	142,246,363	142,246,363	0
Employer Reserves			
• General	$467,944,208	$444,345,118	$(23,599,090)
• Safety	141,090,209	136,602,648	(4,487,561)
Retired Member Reserves			
• General	$1,688,880,978	$1,712,429,000	$23,548,022
• Safety	711,984,220	716,440,000	4,455,780
• COLA	21,731,151	21,814,000	82,849
Total valuation reserves	**$3,677,609,540**	**$3,677,609,540**	**$0**
Non-Valuation Reserves			
• Interest fluctuation reserve	$11,732,980	$11,732,980	$0
Net actuarial value	**$3,689,342,520**	**$3,689,342,520**	**$0**
• Market stabilization reserve	$68,824,738	$68,824,738	$0
Net market value	**$3,758,167,258**	**$3,758,167,258**	**$0**

Note: The Board acted at their March 2024 meeting to make the negative contingency reserve obsolete effective January 1, 2024, which is reflected in this valuation. Effective with this valuation, any transfers that are required to true up the COLA and Retired Member Reserve are made by moving the amount from the Employer Reserve, previously they were made by moving the amount from the Negative Contingency Reserve.

Exhibit G: Development of the Plan through December 31, 2024

Year Ended December 31	Employer Contributions	Member Contributions	Net Investment Return[1]	Benefit Payments	Market Value of Assets at Year-End	Valuation Value of Assets at Year-End	Valuation Value as a Percent of Market Value
2015	$68,239,981	$38,713,777	$31,063,205	$149,364,229	$2,282,127,429	$2,289,056,790	100.3%
2016	63,639,564	40,782,605	185,729,857	157,451,746	2,414,827,709	2,399,170,737	99.4%
2017	63,821,713	44,160,995	391,178,577	165,948,548	2,748,040,446	2,557,299,032	93.1%
2018	67,425,348	45,566,881	(110,661,410)	172,562,274	2,577,808,991	2,667,344,838	103.5%
2019	65,155,347	44,658,390	412,013,127	182,746,330	2,916,889,525	2,811,291,726	96.4%
2020	77,506,384	47,364,262	222,007,222	190,092,258	3,073,675,135	2,981,687,518	97.0%
2021	74,952,763	49,056,580	519,183,054	195,506,307	3,521,361,225	3,215,504,838	91.3%
2022	76,562,193	49,224,211	(272,839,914)	204,675,580	3,169,632,135	3,311,174,115	104.5%
2023	78,412,318	52,594,824	395,922,624	215,415,945	3,481,145,956	3,500,687,264	100.6%
2024	93,868,662	54,205,192	352,895,825	223,948,377	3,758,167,258	3,677,609,540	97.9%

[1] On a market value basis, net of investment and administrative expenses.

Exhibit H: Table of amortization bases

Total Plan
($ in '000s)

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance[1]	Years Remaining	Annual Payment[2]
Restart amortization	December 31, 2007	$177,351	21	$26,087	4	$7,123
Cash Allowance[3]	December 31, 2007	70,675	20	7,270	3	2,601
Actuarial loss	December 31, 2008	55,470	20	8,254	4	2,254
Early Retirement Option	December 31, 2009	1,448	20	220	5	49
Actuarial loss	December 31, 2009	77,884	20	13,250	5	2,946
Assumption changes	December 31, 2009	19,192	20	3,264	5	726
Actuarial loss	December 31, 2010	66,402	20	40,305	6	7,596
Assumption changes	December 31, 2010	54,475	20	33,066	6	6,232
Actuarial loss	December 31, 2011	104,255	20	69,689	7	11,453
Actuarial loss	December 31, 2012	103,359	20	74,549	8	10,904
Assumption changes	December 31, 2012	81,146	20	58,516	8	8,560
Compensation earnable change	December 31, 2012	(11,403)	20	(8,222)	8	(1,203)
Cashout change	December 31, 2012	(32,613)	20	(23,511)	8	(3,439)
Actuarial gain	December 31, 2013	(43,566)	20	(33,443)	9	(4,423)
Actuarial gain	December 31, 2014	(103,425)	20	(83,512)	10	(10,108)
Actuarial gain	December 31, 2015	(22,201)	20	(18,668)	11	(2,090)
Assumption changes	December 31, 2015	93,686	20	78,781	11	8,815
Actuarial loss	December 31, 2016	10,109	20	8,896	12	928

[1] The County has made various actions to reduce the outstanding balance of certain amortization bases. See the notes at the end of the General-County and Safety-County tables for more information on those actions.
[2] Calculated as a level percentage of payroll, payable at the beginning of the month.
[3] Payment is only made by the County and not by the Court nor SVFD as this program was only available to County employees.

Section 3: Supplemental Information

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance[1]	Years Remaining	Annual Payment[2]
Actuarial gain	December 31, 2017	$(38,992)	20	$(35,318)	13	$(3,458)
Actuarial loss	December 31, 2018	25,090	20	20,441	14	1,890
Assumption changes	December 31, 2018	31,798	20	25,630	14	2,369
Actuarial gain	December 31, 2019	(57,823)	20	(54,729)	15	(4,798)
Actuarial gain	December 31, 2020	(25,062)	20	(24,114)	16	(2,014)
Actuarial gain	December 31, 2021	(113,584)	20	(110,660)	17	(8,841)
Assumption changes	December 31, 2021	96,768	20	92,454	17	7,386
Actuarial loss	December 31, 2022	53,664	20	43,556	18	3,340
Actuarial gain	December 31, 2023	(11,972)	20	(11,901)	19	(878)
SVFD Overpayment	December 31, 2023	(62)	20	(62)	19	(4)
Actuarial loss	December 31, 2024	38,171	20	34,939	20	2,489
Assumption changes	December 31, 2024	12,147	20	12,147	20	865
Total				**$248,118**		**$47,342**

Note: The equivalent single amortization period is about 6 years.

[1] The County has made various actions to reduce the outstanding balance of certain amortization bases. See the notes at the end of the General-County and Safety-County tables for more information on those actions.

[2] Calculated as a level percentage of payroll, payable at the beginning of the month.

Section 3: Supplemental Information

General — County

($ in '000s)

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance[1]	Years Remaining	Annual Payment[2]
Restart amortization	December 31, 2007	$123,396	21	$15,772	4	$4,306
Cash Allowance	December 31, 2007	55,982	20	5,757	3	2,060
Actuarial loss	December 31, 2008	44,591	20	5,764	4	1,574
Early Retirement Option	December 31, 2009	1,448	20	220	5	49
Actuarial loss	December 31, 2009	45,691	20	6,960	5	1,547
Assumption changes	December 31, 2009	10,990	20	1,674	5	372
Actuarial loss	December 31, 2010	48,235	20	29,253	6	5,513
Assumption changes	December 31, 2010	37,393	20	22,678	6	4,274
Actuarial loss	December 31, 2011	74,087	20	49,481	7	8,131
Actuarial loss	December 31, 2012	71,616	20	51,606	8	7,548
Assumption changes	December 31, 2012	64,345	20	46,366	8	6,782
Compensation earnable change	December 31, 2012	(8,157)	20	(5,878)	8	(860)
Cashout change	December 31, 2012	(20,626)	20	(14,863)	8	(2,174)
Actuarial gain	December 31, 2013	(35,260)	20	(27,051)	9	(3,577)
Actuarial gain	December 31, 2014	(71,508)	20	(57,690)	10	(6,983)
Actuarial gain	December 31, 2015	(15,879)	20	(13,338)	11	(1,493)
Assumption changes	December 31, 2015	57,580	20	48,369	11	5,412
Actuarial loss	December 31, 2016	7,303	20	6,425	12	670
Actuarial gain	December 31, 2017	(26,381)	20	(23,895)	13	(2,339)
Actuarial loss	December 31, 2018	21,856	20	17,843	14	1,649

[1] The County has made various actions to reduce the outstanding balance of certain amortization bases. See the notes at the end of this table for more information on those actions.
[2] Level percentage of payroll, assumes payments at the beginning of the month. Before adjustments for supplemental contributions paid by certain employees to reduce the employer's UAAL.

Section 3: Supplemental Information

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance[1]	Years Remaining	Annual Payment[2]
Assumption changes	December 31, 2018	$24,241	20	$19,791	14	$1,829
Actuarial gain	December 31, 2019	(39,086)	20	(36,995)	15	(3,243)
Actuarial gain	December 31, 2020	(16,589)	20	(15,961)	16	(1,333)
Actuarial gain	December 31, 2021	(83,485)	20	(81,337)	17	(6,498)
Assumption changes	December 31, 2021	57,549	20	54,659	17	4,367
Actuarial loss	December 31, 2022	42,213	20	34,316	18	2,631
Actuarial gain	December 31, 2023	(11,843)	20	(11,773)	19	(869)
Actuarial loss	December 31, 2024	25,121	20	22,833	20	1,626
Assumption changes	December 31, 2024	20,043	20	20,043	20	1,428
Total				**$171,029**		**$32,399**

The County has issued Pension Obligation Bonds along with making additional UAAL contributions to reduce the outstanding balance of various amortization bases. The details of those actions are as follows:

- In 2010, the County issued Pension Obligation Bonds in the amount of $289.3 million to reduce the outstanding balance and original balance for all bases established on or before December 31, 2009.
- In 2015, the County made additional UAAL contributions of $3.7 million (of which, $2.8 million was allocated to General-County) to reduce the outstanding balance for all bases established on or before December 31, 2015.
- In 2020, the County made additional UAAL contributions of $7.1 million (of which, $5.4 million was allocated to General-County) to reduce the outstanding balance for all bases established on December 31, 2018.
- In 2021, the County made additional UAAL contributions of $1.9 million (of which, $1.45 million was allocated to General-County) to reduce the outstanding balance for the assumption change base established on December 31, 2021.
- In 2022, the County made additional UAAL contributions of $5.8 million (of which, $4.1 million was allocated to General-County) to reduce the outstanding balance for the actuarial loss base established on December 31, 2022.

[1] The County has made various actions to reduce the outstanding balance of certain amortization bases. See the notes at the end of this table for more information on those actions.
[2] Level percentage of payroll, assumes payments at the beginning of the month. Before adjustments for supplemental contributions paid by certain employees to reduce the employer's UAAL.

Section 3: Supplemental Information

- In 2023, the County made additional UAAL contributions of $4.4 million (of which, $3.2 million was allocated to General-County) to reduce the outstanding balance for the actuarial loss base established on December 31, 2022.
- In 2024, the County made additional UAAL contributions of $3.2 million (of which, $2.3 million was allocated to General-County) to reduce the outstanding balance for the actuarial loss base established on December 31, 2023.

Section 3: Supplemental Information

General — Court

($ in '000s)

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Restart amortization	December 31, 2007	$8,599	21	$3,906	4	$1,067
Actuarial loss	December 31, 2008	3,107	20	1,427	4	390
Actuarial loss	December 31, 2009	2,859	20	1,548	5	344
Assumption changes	December 31, 2009	688	20	373	5	83
Actuarial loss	December 31, 2010	3,044	20	1,865	6	351
Assumption changes	December 31, 2010	2,360	20	1,446	6	273
Actuarial loss	December 31, 2011	4,760	20	3,211	7	528
Actuarial loss	December 31, 2012	4,188	20	3,050	8	446
Assumption changes	December 31, 2012	3,763	20	2,739	8	401
Compensation earnable change	December 31, 2012	(477)	20	(346)	8	(51)
Actuarial gain	December 31, 2013	(1,884)	20	(1,458)	9	(193)
Actuarial gain	December 31, 2014	(3,657)	20	(2,980)	10	(361)
Actuarial gain	December 31, 2015	(830)	20	(705)	11	(79)
Assumption changes	December 31, 2015	3,009	20	2,555	11	286
Actuarial loss	December 31, 2016	364	20	322	12	34
Actuarial gain	December 31, 2017	(1,236)	20	(1,120)	13	(110)
Actuarial loss	December 31, 2018	987	20	916	14	85
Assumption changes	December 31, 2018	1,094	20	1,013	14	94
Actuarial gain	December 31, 2019	(1,831)	20	(1,733)	15	(152)
Actuarial gain	December 31, 2020	(738)	20	(710)	16	(59)

[1] Level percentage of payroll, assumes payments at the beginning of the month.

Section 3: Supplemental Information

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Actuarial gain	December 31, 2021	$(3,490)	20	$(3,399)	17	$(272)
Assumption changes	December 31, 2021	2,405	20	2,344	17	187
Actuarial loss	December 31, 2022	1,718	20	1,693	18	130
Actuarial gain	December 31, 2023	(491)	20	(488)	19	(36)
Actuarial loss	December 31, 2024	987	20	987	20	70
Assumption changes	December 31, 2024	787	20	787	20	56
Total				**$17,243**		**$3,512**

[1] Level percentage of payroll, assumes payments at the beginning of the month.

Section 3: Supplemental Information

General — Sonoma Valley Fire District

($ in '000s)

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Actuarial loss	December 31, 2009	$13	20	$7	5	$2
Assumption changes	December 31, 2009	3	20	3	5	1
Actuarial loss	December 31, 2010	14	20	8	6	2
Assumption changes	December 31, 2010	11	20	6	6	1
Actuarial loss	December 31, 2011	23	20	16	7	3
Actuarial loss	December 31, 2012	99	20	74	8	11
Assumption changes	December 31, 2012	89	20	65	8	10
Compensation earnable change	December 31, 2012	(11)	20	(8)	8	(1)
Actuarial gain	December 31, 2013	(38)	20	(29)	9	(4)
Actuarial gain	December 31, 2014	(84)	20	(68)	10	(8)
Actuarial gain	December 31, 2015	(18)	20	(16)	11	(2)
Assumption changes	December 31, 2015	64	20	55	11	6
Actuarial loss	December 31, 2016	8	20	8	12	1
Actuarial gain	December 31, 2017	(37)	20	(34)	13	(3)
Actuarial loss	December 31, 2018	31	20	29	14	3
Assumption changes	December 31, 2018	34	20	31	14	3
Actuarial gain	December 31, 2019	(58)	20	(55)	15	(5)
Actuarial gain	December 31, 2020	(19)	20	(19)	16	(2)
Actuarial gain	December 31, 2021	(77)	20	(75)	17	(6)
Assumption changes	December 31, 2021	53	20	52	17	4

[1] Level percentage of payroll, assumes payments at the beginning of the month.

Section 3: Supplemental Information

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Actuarial loss	December 31, 2022	$40	20	$40	18	$3
Actuarial gain	December 31, 2023	(11)	20	(11)	19	(1)
Actuarial loss	December 31, 2024	36	20	36	20	3
Assumption changes	December 31, 2024	28	20	28	20	2
Total				**$143**		**$23**

[1] Level percentage of payroll, assumes payments at the beginning of the month.

Section 3: Supplemental Information

Safety — County

($ in '000s)

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance[1]	Years Remaining	Annual Payment[2]
Restart amortization	December 31, 2007	$43,504	21	$5,568	4	$1,520
Cash Allowance	December 31, 2007	14,693	20	1,513	3	541
Actuarial loss	December 31, 2008	7,603	20	985	4	269
Actuarial loss	December 31, 2009	28,643	20	4,368	5	971
Assumption changes	December 31, 2009	7,337	20	1,120	5	249
Actuarial loss	December 31, 2010	14,765	20	8,967	6	1,690
Assumption changes	December 31, 2010	14,376	20	8,731	6	1,645
Actuarial loss	December 31, 2011	24,746	20	16,551	7	2,720
Actuarial loss	December 31, 2012	26,012	20	18,769	8	2,745
Assumption changes	December 31, 2012	12,268	20	8,850	8	1,294
Compensation earnable change	December 31, 2012	(2,613)	20	(1,885)	8	(276)
Cashout change	December 31, 2012	(11,987)	20	(8,648)	8	(1,265)
Actuarial gain	December 31, 2013	(6,051)	20	(4,648)	9	(615)
Actuarial gain	December 31, 2014	(26,652)	20	(21,531)	10	(2,606)
Actuarial gain	December 31, 2015	(5,153)	20	(4,335)	11	(485)
Assumption changes	December 31, 2015	31,096	20	26,157	11	2,927
Actuarial loss	December 31, 2016	2,293	20	2,017	12	210
Actuarial gain	December 31, 2017	(10,655)	20	(9,650)	13	(945)
Actuarial loss	December 31, 2018	2,079	20	1,525	14	141
Assumption changes	December 31, 2018	6,032	20	4,427	14	409

[1] The County has made various actions to reduce the outstanding balance of certain amortization bases. See the notes at the end of this table for more information on those actions.
[2] Calculated as a level percentage of payroll, payable at the beginning of the month. Before adjustments for supplemental contributions paid by certain employees to reduce the employer's UAAL.

Section 3: Supplemental Information

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance[1]	Years Remaining	Annual Payment[2]
Actuarial gain	December 31, 2019	$(15,693)	20	$(14,853)	15	$(1,302)
Actuarial gain	December 31, 2020	(7,099)	20	(6,830)	16	(570)
Actuarial gain	December 31, 2021	(24,324)	20	(23,698)	17	(1,893)
Assumption changes	December 31, 2021	33,701	20	32,418	17	2,590
Actuarial loss	December 31, 2022	10,408	20	6,479	18	497
Actuarial loss	December 31, 2023	336	20	334	19	25
SVFD over-collection	December 31, 2023	665	20	661	19	49
Actuarial loss	December 31, 2024	10,810	20	9,866	20	703
Assumption changes	December 31, 2024	(7,830)	20	(7,830)	20	(558)
Total				**$56,342**		**$10,752**

The County has issued Pension Obligation Bonds along with making additional UAAL contributions to reduce the outstanding balance of various amortization bases. The details of those actions are as follows:

- In 2010, the County issued Pension Obligation Bonds in the amount of $289.3 million to reduce the outstanding balance and original balance for all bases established on or before December 31, 2009.
- In 2015, the County made additional UAAL contributions of $3.7 million (of which, $0.9 million was allocated to Safety-County) to reduce the outstanding balance for all bases established on or before December 31, 2015.
- In 2020, the County made additional UAAL contributions of $7.1 million (of which, $1.7 million was allocated to Safety-County) to reduce the outstanding balance for all bases established on December 31, 2018.
- In 2021, the County made additional UAAL contributions of $1.9 million (of which, $0.43 million was allocated to Safety-County) to reduce the outstanding balance for the assumption change base established on December 31, 2021.
- In 2022, the County made additional UAAL contributions of $5.8 million (of which, $1.7 million was allocated to Safety-County) to reduce the outstanding balance for the actuarial loss base established on December 31, 2022.

[1] The County has made various actions to reduce the outstanding balance of certain amortization bases. See the notes at the end of this table for more information on those actions.
[2] Calculated as a level percentage of payroll, payable at the beginning of the month. Before adjustments for supplemental contributions paid by certain employees to reduce the employer's UAAL.

Section 3: Supplemental Information

- In 2023, the County made additional UAAL contributions of $4.4 million (of which, $1.2 million was allocated to Safety-County) to reduce the outstanding balance for the actuarial loss base established on December 31, 2022.
- In 2024, the County made additional UAAL contributions of $3.2 million (of which, $0.9 million was allocated to Safety-County) to reduce the outstanding balance for the actuarial loss base established on December 31, 2023.

Section 3: Supplemental Information

Safety — Sonoma Valley Fire District

($ in '000s)

Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Restart amortization	December 31, 2007	$1,852	21	$841	4	$230
Actuarial loss	December 31, 2008	169	20	78	4	21
Actuarial loss	December 31, 2009	678	20	367	5	82
Assumption changes	December 31, 2009	174	20	94	5	21
Actuarial loss	December 31, 2010	344	20	212	6	40
Assumption changes	December 31, 2010	335	20	205	6	39
Actuarial loss	December 31, 2011	639	20	430	7	71
Actuarial loss	December 31, 2012	1,444	20	1,050	8	154
Assumption changes	December 31, 2012	681	20	496	8	73
Compensation earnable change	December 31, 2012	(145)	20	(105)	8	(15)
Actuarial gain	December 31, 2013	(333)	20	(257)	9	(34)
Actuarial gain	December 31, 2014	(1,524)	20	(1,243)	10	(150)
Actuarial gain	December 31, 2015	(321)	20	(274)	11	(31)
Assumption changes	December 31, 2015	1,937	20	1,645	11	184
Actuarial loss	December 31, 2016	141	20	124	12	13
Actuarial gain	December 31, 2017	(683)	20	(619)	13	(61)
Actuarial loss	December 31, 2018	137	20	128	14	12
Assumption changes	December 31, 2018	397	20	368	14	34
Actuarial gain	December 31, 2019	(1,155)	20	(1,093)	15	(96)
Actuarial gain	December 31, 2020	(617)	20	(594)	16	(50)
Actuarial gain	December 31, 2021	(2,208)	20	(2,151)	17	(172)

[1] Calculated as a level percentage of payroll, payable at the beginning of the month.

Section 3: Supplemental Information

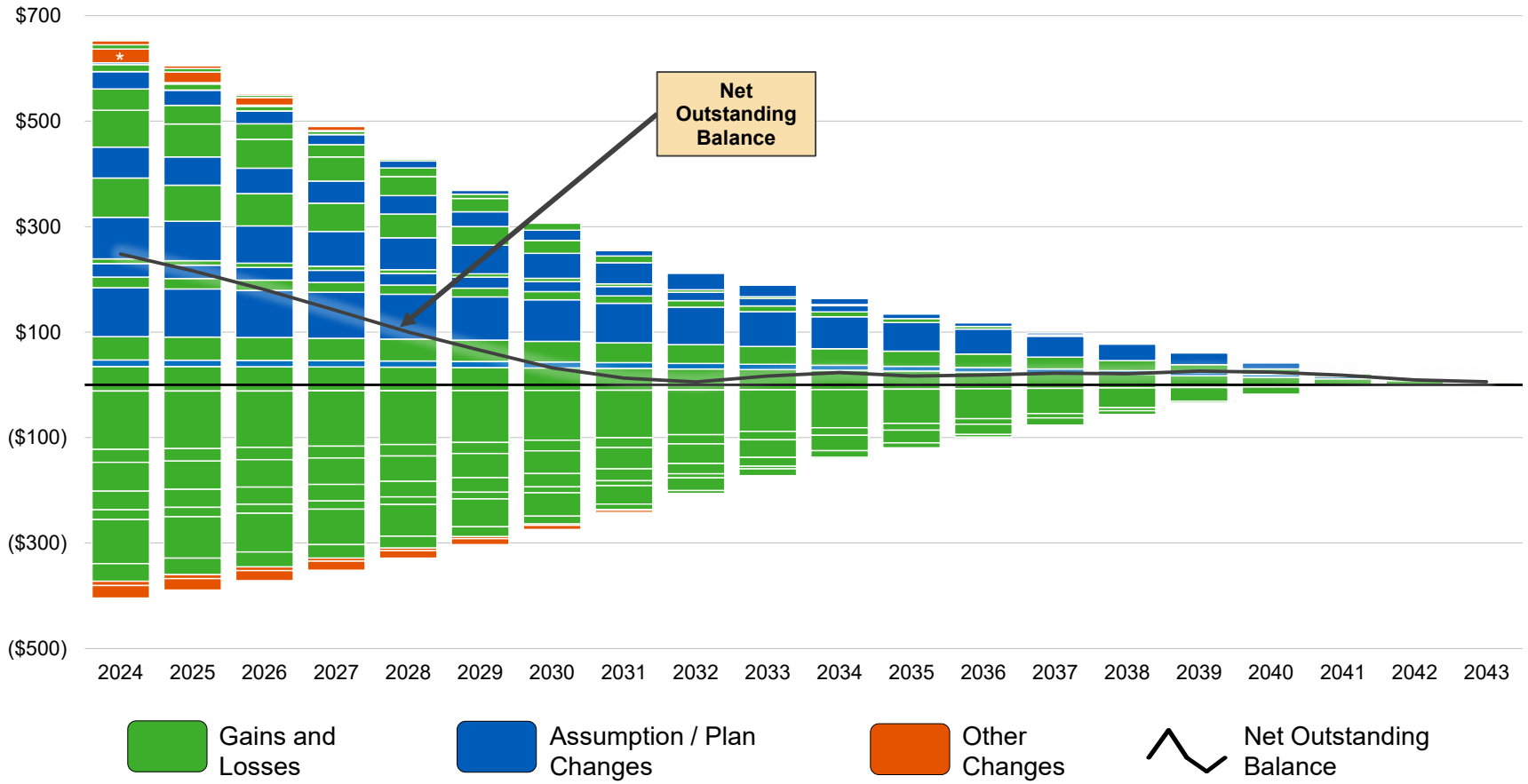
Base Type	Date Established	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment[1]
Assumption changes	December 31, 2021	$3,060	20	$2,981	17	$238
Actuarial loss	December 31, 2022	1,043	20	1,028	18	79
Actuarial loss	December 31, 2023	37	20	37	19	3
SVFD over-collection	December 31, 2023	(727)[2]	20	(723)	19	(53)
Actuarial loss	December 31, 2024	1,217	20	1,217	20	87
Assumption changes	December 31, 2024	(881)	20	(881)	20	(63)
Total				**$3,361**		**$656**

[1] Calculated as a level percentage of payroll, payable at the beginning of the month.
[2] This is equal to $665 in over-collection through December 31, 2022 plus $62 in over collection during 2023 all adjusted with interest to December 31, 2023.

Exhibit I: Projection of UAAL balances and payments

Outstanding Balance of $248 Million in Net UAAL as of December 31, 2024

($ in Millions)

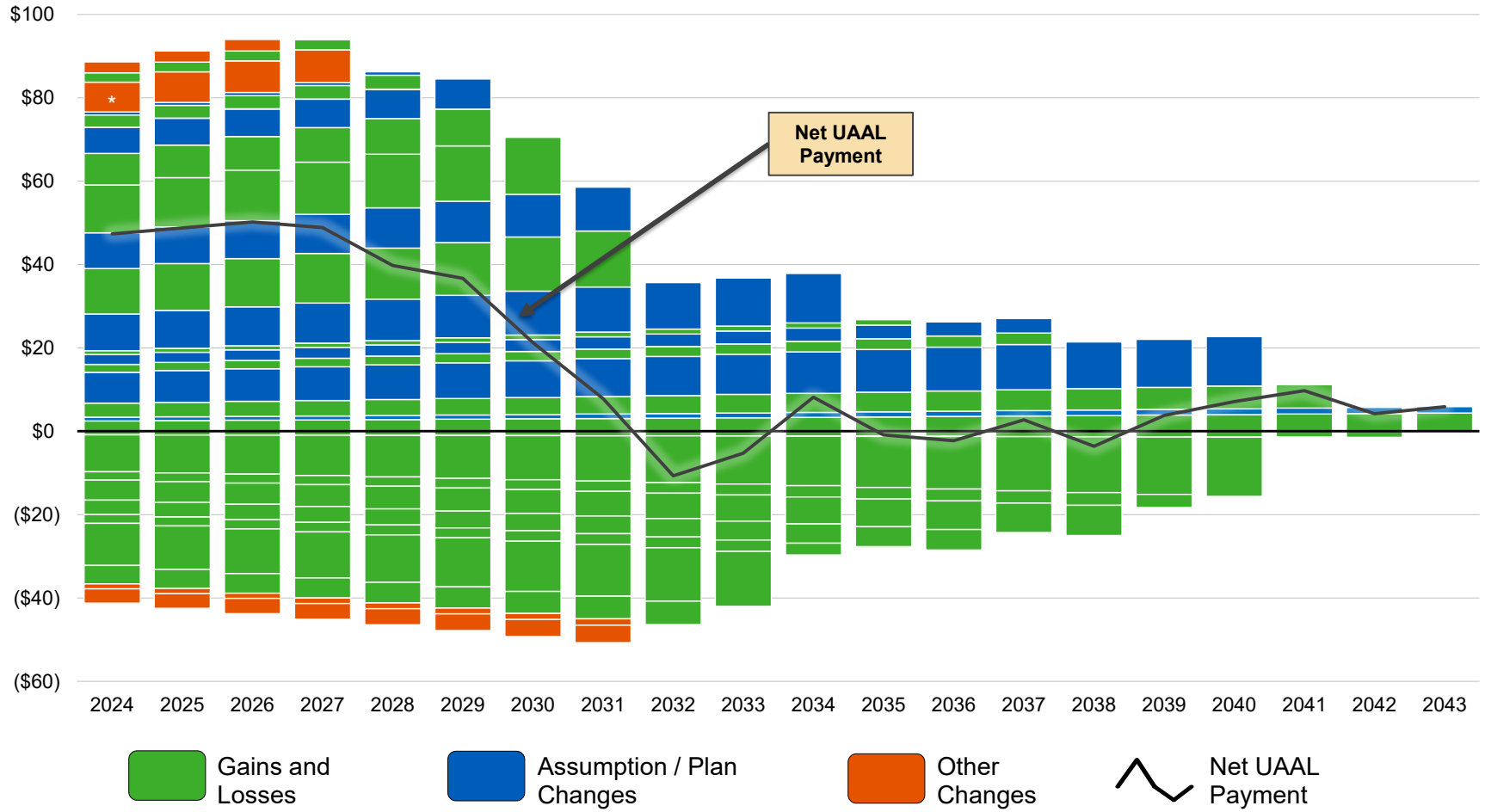


* Restart amortization base, established December 31, 2007.

Section 3: Supplemental Information

Annual Payments Required to Amortize $248 Million in Net UAAL as of December 31, 2024

($ in Millions)



* Restart amortization base, established December 31, 2007.

Note: The net UAAL amortization **credits** shown above are before applying any tail volatility management that may be recommended by Segal to the Board in the future.

Section 4: Actuarial Valuation Basis

Exhibit 1: Actuarial assumptions, methods and models

Rationale for assumptions

The information and analysis used in selecting each assumption that has a significant effect on this actuarial valuation is shown in the January 1, 2021 through December 31, 2023 Actuarial Experience Study dated October 17, 2024. Unless otherwise noted, all actuarial assumptions and methods shown below apply to all members. These assumptions were adopted by the Board.

Net investment return

6.75%; net of administrative and investment expenses.

Based on the Actuarial Experience Study referenced above, expected administrative and investment expenses represent about 0.20% of the actuarial value of assets.

Inflation rate

Increase of 2.50% per year.

Cost-of-Living Adjustment (COLA)

Not applicable.

Employee contribution crediting rate

2.50%, credited semi-annually (actual increase is based on ten-year Treasury rate).

Payroll

Inflation of 2.50% per year plus “across-the-board” salary increase of 0.50% per year, used to amortize the UAAL as a level percentage of payroll.

Increase in Internal Revenue Code Section 401(a)(17) compensation limit

Increase of 2.50% per year from the valuation date.

Increase in Section 7522.10 compensation limit

Increase of 2.50% per year from the valuation date.

Salary increase

The annual rate of compensation increase includes:

- Inflation at 2.50%, plus
- "Across-the-board" salary increase of 0.50% per year, plus
- Merit and promotion increase based on years of service:

Merit and Promotion Increases (%)

Years of Service	General Plan A	General Plan B	Safety Plan A	Safety Plan B
Less than 1	5.00	4.25	7.50	7.00
1–2	5.50	5.75	7.50	7.50
2–3	4.50	4.75	5.00	4.75
3–4	3.50	4.00	4.50	4.25
4–5	2.50	3.00	3.50	3.25
5–6	2.00	2.00	1.75	2.00
6–7	1.50	2.00	1.50	1.75
7–8	1.75	1.75	1.75	1.75
8–9	1.70	1.70	1.75	1.75
9–10	1.60	1.60	1.75	1.75
10–11	1.40	1.40	1.55	1.55
11–12	1.35	1.35	1.25	1.25
12–13	1.30	1.30	1.25	1.25
13–14	1.25	1.25	1.00	1.00
14–15	1.15	1.15	1.00	1.00
15 and over	0.75	0.75	1.00	1.00

Post-retirement mortality rates

The Pub-2010 mortality tables and adjustments as shown below reasonably reflect the mortality experience as of the measurement date. These mortality tables were adjusted to future years using the generational projection to reflect future mortality improvement between the measurement date and those years.

Healthy

- **General members:**
  - Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates decreased by 5% for males and increased by 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Safety members:**
  - Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.

Disabled

- **General members:**
  - Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) with rates decreased by 5% for males and decreased by 10% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Safety members:**
  - Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) with rates decreased by 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Beneficiary

- **Beneficiaries not currently in pay status:**
  - Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates decreased by 5% for males and increased by 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

- **Beneficiaries in pay status:**
  - Pub-2010 Contingent Survivor Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Pre-retirement mortality rates

- **General members:**
  - Pub-2010 General Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates decreased by 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2021.
- **Safety members:**
  - Pub-2010 Safety Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates decreased by 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Pre-Retirement Mortality Rates (%) — Before Generational Projection from 2010

Age	General Male	General Female	Safety Male	Safety Female
20	0.03	0.01	0.04	0.01
25	0.02	0.01	0.03	0.02
30	0.03	0.01	0.03	0.02
35	0.04	0.02	0.04	0.03
40	0.05	0.03	0.05	0.04
45	0.08	0.05	0.07	0.06
50	0.12	0.08	0.10	0.08
55	0.18	0.11	0.14	0.11
60	0.26	0.17	0.22	0.14
65	0.38	0.27	0.34	0.20
70	0.58	0.44	0.63	0.39

All pre-retirement deaths are assumed to be non-service connected.

Mortality rates for Plan A member contributions

- **General members:**
  - Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates decreased by 5% for males and increased by 5% for females, projected 32 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted one-third male and two-thirds female.
- **Safety members:**
  - Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected 32 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted three-fourths male and one-fourth female.

Disability incidence

Disability Incidence Rates (%)

Age	General	Safety
20	0.01	0.10
25	0.01	0.34
30	0.01	1.10
35	0.01	1.80
40	0.12	2.15
45	0.20	2.70
50	0.23	3.45
55	0.25	3.75
60	0.28	3.60
65	0.30	0.00
70	0.00	0.00

60% of General disabilities are assumed to be service-connected disabilities. The other 40% are assumed to be non-service-connected disabilities.

100% of Safety disabilities are assumed to be service-connected disabilities.

Withdrawal

Withdrawal Rates (%) — Less Than Five Years of Service

Years of Service	General	Safety
Less than 1	6.00	3.25
1–2	2.75	2.75
2–3	2.75	1.50
3–4	2.25	1.25
4–5	1.50	1.00

Withdrawal Rates (%) — Five or More Years of Service

Age	General	Safety
20	1.25	1.00
25	1.25	1.00
30	1.04	0.85
35	0.69	0.54
40	0.43	0.25
45	0.32	0.09
50	0.24	0.02
55	0.11	0.00
60	0.02	0.00
65	0.00	0.00
70	0.00	0.00

No withdrawal is assumed after a member is first assumed to retire.

Vested termination

Vested Termination Rates (%) — Less Than Five Years of Service

Years of Service	General	Safety
Less than 1	8.75	9.00
1–2	6.00	6.50
2–3	6.00	4.50
3–4	5.75	4.50
4–5	5.00	4.25

Vested Termination Rates (%) — Five or More Years of Service

Age	General	Safety
20	6.00	4.50
25	6.00	4.50
30	5.25	3.60
35	4.45	2.85
40	3.95	2.00
45	3.30	1.05
50	3.00	0.75
55	2.85	0.30
60	2.75	0.00
65	2.45	0.00
70	0.00	0.00

No vested termination is assumed after a member is first assumed to retire.

Retirement rates

Retirement Rates (%) — General

Age	Plan A Less than 30 Years of Service	Plan A 30 or More Years of Service	Plan B
50	6.00	10.00	0.00
51	4.00	8.00	0.00
52	4.25	8.00	3.00
53	4.75	15.00	2.00
54	4.75	10.00	2.00
55	9.00	10.00	2.50
56	8.50	20.00	3.50
57	8.50	20.00	5.00
58	10.00	30.00	5.00
59	15.00	40.00	5.00
60	22.00	50.00	6.00
61	20.00	30.00	9.00
62	25.00	30.00	13.00
63	27.00	30.00	15.00
64	27.00	30.00	15.00
65	32.00	35.00	23.00
66	32.00	45.00	25.00
67	35.00	45.00	25.00
68	35.00	45.00	30.00
69	40.00	50.00	30.00
70 and over	100.00	100.00	100.00

Retirement Rates (%) — Safety

Age	Plan A Less than 30 Years of Service	Plan A 30 or More Years of Service	Plan B
46	2.00	0.00	0.00
47	2.00	0.00	0.00
48	5.00	6.00	0.00
49	15.00	15.00	0.00
50	18.00	18.00	5.00
51	14.00	16.00	5.00
52	12.00	18.00	4.50
53	13.00	20.00	4.00
54	14.00	25.00	6.50
55	17.00	30.00	15.50
56	23.00	30.00	14.00
57	20.00	35.00	20.00
58	20.00	40.00	16.00
59	25.00	50.00	20.00
60	30.00	50.00	30.00
61	30.00	50.00	30.00
62	30.00	50.00	30.00
63	30.00	50.00	30.00
64	50.00	50.00	50.00
65 and over	100.00	100.00	100.00

Inactive members

Current and Future Inactive Member Assumptions

Membership and Reciprocity	% of Future Inactive Members[1]	Annual Salary Increases from Separation Date	Retirement Age
General with reciprocity	25%	3.75%	60
General without reciprocity	75%	N/A	58
Safety with reciprocity	30%	4.00%	55
Safety without reciprocity	70%	N/A	51

Inactive members without reciprocity who terminate with less than five years of service and are not vested are assumed to retire at age 70 for both General and Safety if they decide to leave their contributions on deposit.

Future benefit accruals

1.0 year of service per year of employment.

Unknown data for members

Same as those exhibited by members with similar known characteristics. If not specified, General members are assumed to be female and Safety members are assumed to be male.

Definition of active members

All active members of SCERA as of the valuation date.

Form of payment

All active and inactive members are assumed to elect the unmodified option at retirement.

[1] SCERA provides the reciprocity status for inactive members in the valuation census data.

Survivor assumptions

Current Active and Inactive Member Survivor Assumptions

Member Gender	% with Eligible Survivor at Retirement or Pre-Retirement Death	Survivor Age	Survivor Gender
Male member	65%	3 years younger than member	Female
Female member	55%	2 years older than member	Male

Cashouts

Plan A-County

For members who terminated prior to June 1, 2014, the following assumptions for a one-time compensation increase at retirement from vacation, sick leave and holiday cashouts are used:

General members	4.00%
Safety members	6.00%

Plan A-Court

The following assumptions for a one-time compensation increase at retirement from vacation and holiday cashouts are used:

General members	2.50%

Plan A-SVFD

The following assumptions for a one-time compensation increase at retirement from vacation and holiday cashouts are used:

General members	N/A
Safety members	1.00%

Actuarial cost method

Entry age actuarial cost method.

Entry age is the age on the valuation date minus the lesser of years of eligibility service or years of benefit service. Normal cost and AAL are calculated on an individual basis and are based on costs allocated as a level percentage of compensation.

Actuarial value of assets

Market value of assets less unrecognized returns in each of the last five years. Unrecognized returns are equal to the difference between the actual market return and the expected return on the valuation value and are recognized over a five-year period.

Valuation value of assets

The actuarial value of assets reduced by the value of the non-valuation reserves.

Amortization policy

The outstanding balance of the December 31, 2007 UAAL as well as any new UAAL established on each subsequent valuation after December 31, 2007 is amortized over separate 20-year declining periods.

The UAAL established as a result of including as pensionable salary a cash allowance of $3.45 per hour for General-County and Safety-County members is amortized over a 20-year declining period with 3 years remaining as of December 31, 2024.

Cost Sharing Method

General

Normal cost

Effective with the restatement of the December 31, 2012 contribution rates to reflect the elimination of vacation, sick leave and holiday cashouts for General-County, a separate normal cost rate is calculated for General Plan A-County. The normal cost rate for General Plan A-Court and General Plan A-SVFD is developed on a pooled basis.

Effective with the December 31, 2015 valuation, the normal cost rate for General Plan A-SVFD is further adjusted relative to the normal cost rate for General Plan A-Court to reflect the different cashouts at the two employers.

A pooled normal cost rate has been calculated for General Plan B for all three employers upon the implementation of that plan effective January 1, 2013.

Contributions to the UAAL

Any new General UAAL for Plan A and Plan B is pooled and then allocated between General-County, General-Court and General-SVFD based on the proportions of their payroll to the total General payroll.

Safety

Normal cost

Effective with the December 31, 2007 valuation, a separate normal cost rate is calculated for Safety Plan A-County and Safety Plan A-SVFD, based on their respective active member demographics.

Likewise, a separate normal cost rate has been calculated for Safety Plan B for each of the two employers upon the implementation of that plan effective January 1, 2013.

Contributions to the UAAL

Any new Safety UAAL for Plan A and Plan B is pooled and then allocated between Safety-County and Safety-SVFD, based on the proportions of their payroll to the total Safety payroll.

Employer contributions

The recommended employer contributions are provided in *Section 2, Subsection F* and consist of two components:

Normal cost

The annual contribution rate that, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement-related benefits. Accumulation includes annual crediting of interest at the assumed investment earning rate.

The contribution rate is determined as a level percentage of the member's compensation.

Contribution to the UAAL

The annual contribution rate that, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earning rate.

The contribution (or rate credit in the case of a negative UAAL) is calculated to remain as a level percentage of future active member payroll (including payroll for new members as they enter the Association) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments (credits) are scheduled to increase at the annual payroll growth rate assumption.

Member contributions

The member contribution rates for all members are provided in *Section 4, Exhibit 3*.

Normal cost

Plan A

Articles 6 and 6.8 of the CERL define the methodology to be used in the calculation of member basic contribution rates for General Plan A and Safety Plan A members, respectively. The basic contribution rate is determined so that the accumulation of a member's basic contributions made each year until a certain age (age is 55 for General members and 50 for Safety members) will be sufficient to fund an annuity at that age that is equal to 1/100 of final average compensation. It is assumed that contributions are made annually at the same rate, starting at entry age. Accumulation includes semi-annual crediting of interest at one-half of the assumed investment earning rate.

Active members represented by some of the bargaining groups have agreed to pay additional employee normal cost contributions that are above those determined under the CERL as permitted under CalPEPRA. As the specific amount of those higher contributions are dependent on the specific bargaining agreements, we have continued to include only the minimum member contribution rates in this report. The final member rates adjusted to include the additional employee normal cost contributions will be provided in separate letters based on the terms of the bargaining agreements.

Plan B

Pursuant to Section 7522.30(a) of the Government Code, CalPEPRA members are required to contribute at least 50% of the normal cost rate. We have assumed that exactly 50% of the normal cost would be paid by the CalPEPRA members. Also of note is that

based on our recommendation, SCERA has decided to use the discretion made available by AB1380 to no longer round the member's contribution rate to the nearest one-fourth percent, as previously required by CalPEPRA.

Contribution to the UAAL

General-County and General-Court members pay an additional UAAL contribution equal to 3.03% of payroll for a 20-year period from July 1, 2004 to June 30, 2024.

Safety-County members covered under the DSA and DSLEM bargaining agreements pay an additional UAAL contribution equal to 3.00% of payroll from February 1, 2005 through the last pay period in June 2023. Safety-County members covered under the Salary Resolution, SCLEA, and SCLEMA bargaining agreements pay an additional UAAL contribution equal to 3.00% of payroll through June 2024.

These rates are subtracted from the employer's UAAL rates, after adjustment for refundability.

Subsequent to the initial arrangements, the County negotiated the Salary Resolution, ESC, DSA, DSLEM, SCDPDAA, SCLEA, SCLEMA and SCPDIA bargaining agreements to state that Plan A members covered under those groups will continue to pay the applicable additional UAAL contribution, as stated above, until they end their employment with the County.

Internal Revenue Code Section 415

Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for non-compliance is disqualification: active members could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.

Section 415(b) of the IRC limits the maximum annual benefit payable at the normal retirement age to a dollar limit of $160,000 indexed for inflation. That limit is $280,000 for 2025. Normal retirement age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after-tax contributions.

Plan A benefits in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard.

Plan A contribution rates determined in this valuation have not been reduced for the Section 415 limitations. Actual limitations will result in gains as they occur.

Models

Segal valuation results are based on proprietary actuarial modeling software. The actuarial valuation models generate a comprehensive set of liability and cost calculations that are presented to meet regulatory, legislative and client requirements. Our Actuarial Technology and Systems unit, comprised of both actuaries and programmers, is responsible for the initial development and maintenance of these models. The models have a modular structure that allows for a high degree of accuracy, flexibility and user control. The client team programs the assumptions and the plan provisions, validates the models, and reviews test lives and results, under the supervision of the responsible actuary.

Justification for change in actuarial assumptions, methods or models

Based on the January 1, 2021 through December 31, 2023 Actuarial Experience Study, the following actuarial assumptions were changed. The current assumptions are shown starting on page 79, previously, these assumptions were:

Salary increase (prior assumption)

The annual rate of compensation increase includes:

- Inflation at 2.50%, plus
- "Across-the-board" salary increase of 0.50% per year, plus
- Merit and promotion increase based on years of service:

Merit and Promotion Increases (%)

Years of Service	General	Safety
Less than 1	5.00	7.50
1–2	5.50	7.50
2–3	4.50	5.00
3–4	3.50	4.50
4–5	2.50	3.50
5–6	2.00	1.75
6–7	1.50	1.50
7–8	1.25	1.25
8–9	1.25	1.25
9–10	1.25	1.25
10–11	1.00	1.25
11–12	1.00	1.25
12–13	0.75	1.25
13–14	0.75	1.00
14–15	0.75	1.00
15 and over	0.55	1.00

Post-retirement mortality rates (prior assumption)

Healthy

- **General members**
  - Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2020.
- **Safety members**
  - Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2020.

Disabled

- **General members**
  - Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) decreased 5% for males and decreased 10% for females, projected generationally with the two-dimensional mortality improvement scale MP-2020.
- **Safety members**
  - Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) decreased 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2020.

Beneficiary

- **All beneficiaries**
  - Pub-2010 Contingent Survivor Amount-Weighted Above Median Mortality Table (separate tables for males and females) increased 5% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2020.

Pre-retirement mortality rates (prior assumption)

- **General members**
  - Pub-2010 General Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), decreased 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2020.
- **Safety members**
  - Pub-2010 Safety Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), decreased 5% for males, projected generationally with the two-dimensional mortality improvement scale MP-2020.

All pre-retirement deaths are assumed to be non-service connected.

Mortality rates for member contributions (prior assumption)

- **General members**
  - Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) increased 5% for females, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2020, weighted one-third male and two-thirds female.
- **Safety members**
  - Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2020, weighted three-fourths male and one-fourth female.

Disability incidence (prior assumption)

Disability Incidence Rates (%)

Age	General	Safety
20	0.05	0.10
25	0.05	0.16
30	0.05	0.68
35	0.05	1.30
40	0.14	1.50
45	0.20	2.10
50	0.23	2.50
55	0.28	2.80
60	0.30	3.00
65	0.30	0.00
70	0.00	0.00

55% of General disabilities are assumed to be service-connected disabilities. The other 45% are assumed to be non-service connected disabilities.

100% of Safety disabilities are assumed to be service-connected disabilities.

Withdrawal (prior assumption)

Withdrawal Rates (%) — Less Than Five Years of Service

Years of Service	General	Safety
Less than 1	5.75	3.00
1–2	2.75	2.40
2–3	2.50	1.40
3–4	2.50	1.40
4–5	1.75	1.40

Withdrawal Rates (%) — Five or More Years of Service

Age	General	Safety
20	1.25	1.00
25	1.25	1.00
30	1.10	0.85
35	0.70	0.54
40	0.44	0.25
45	0.37	0.09
50	0.32	0.02
55	0.18	0.00
60	0.04	0.00
65	0.00	0.00
70	0.00	0.00

No withdrawal is assumed after a member is first assumed to retire.

Vested termination (prior assumption)

Vested Termination Rates (%) — Less Than Five Years of Service

Years of Service	General	Safety
Less than 1	8.00	7.50
1–2	6.00	6.00
2–3	5.50	4.00
3–4	4.50	4.00
4–5	4.00	4.00

Vested Termination Rates (%) — Five or More Years of Service

Age	General	Safety
20	4.00	3.75
25	4.00	3.75
30	4.00	3.00
35	3.40	2.20
40	3.00	1.40
45	2.55	0.85
50	2.25	0.30
55	2.25	0.00
60	2.25	0.00
65	2.25	0.00
70	0.00	0.00

No vested termination is assumed after a member is first assumed to retire.

Retirement rates (prior assumption)

Retirement Rates (%) — General

Age	Plan A Less than 30 Years of Service	Plan A 30 or More Years of Service	Plan B
50	5.0	10.0	0.0
51	3.5	10.0	0.0
52	4.5	10.0	3.5
53	5.0	15.0	1.0
54	5.5	20.0	2.0
55	10.0	20.0	2.5
56	8.5	20.0	3.5
57	8.5	20.0	4.5
58	10.0	25.0	5.0
59	18.0	40.0	7.5
60	21.0	40.0	8.0
61	21.0	40.0	12.0
62	27.0	45.0	15.0
63	27.0	45.0	20.0
64	27.0	45.0	25.0
65	32.0	45.0	25.0
66	40.0	45.0	25.0
67	40.0	45.0	25.0
68	40.0	50.0	25.0
69	50.0	50.0	25.0
70 and over	100.0	100.0	100.0

Retirement Rates (%) — Safety

Age	Plan A Less than 30 Years of Service	Plan A 30 or More Years of Service	Plan B
46	2.0	0.0	0.0
47	2.0	0.0	0.0
48	6.0	6.0	0.0
49	15.0	15.0	0.0
50	18.0	18.0	5.0
51	14.0	16.0	5.0
52	12.0	18.0	4.5
53	14.0	25.0	4.5
54	16.0	50.0	7.5
55	18.0	50.0	16.5
56	25.0	50.0	15.0
57	20.0	50.0	12.0
58	20.0	50.0	16.0
59	20.0	75.0	16.0
60	50.0	75.0	50.0
61	50.0	75.0	50.0
62	50.0	75.0	50.0
63	50.0	75.0	50.0
64	50.0	75.0	50.0
65 and over	100.0	100.0	100.0

Retirement age and benefit for deferred vested members (prior assumption)

Current and Future Inactive Member Assumptions

Membership and Reciprocity	% of Future Deferred Vested Members[1]	Annual Salary Increases from Separation Date	Retirement Age
General with reciprocity	25%	3.55%	60
General without reciprocity	75%	N/A	58
Safety with reciprocity	35%	4.00%	55
Safety without reciprocity	65%	N/A	52

Inactive members without reciprocity who terminate with less than five years of service and are not vested are assumed to retire at age 70 for both General and Safety if they decide to leave their contributions on deposit.

Unknown data for members (prior assumption)

Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.

Survivor assumptions (prior assumption)

Current Active and Inactive Member Survivor Assumptions

Member Gender	% with Eligible Survivor at Retirement or Pre-Retirement Death	Survivor Age	Survivor Gender
Male member	70%	3 years younger than member	Female
Female member	55%	2 years older than member	Male

[1] SCERA provides the reciprocity status for current deferred vested members in the valuation census data.

Cashouts (prior assumption)

Plan A-County

For members who terminated prior to June 1, 2014, the following assumptions for a one-time compensation increase at retirement from vacation, sick leave and holiday cashouts are used:

General members	4.00%
Safety members	6.00%

Plan A-Court

The following assumptions for a one-time compensation increase at retirement from vacation and holiday cashouts are used:

General members	3.25%

Plan A-SVFD

The following assumptions for a one-time compensation increase at retirement from vacation and holiday cashouts are used:

General members	2.00%
Safety members	2.50%

Exhibit 2: Summary of plan provisions

This exhibit summarizes the major provisions of the Plan included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions. If the Association should find the plan summary not in accordance with the actual provisions, the Association should alert the actuary so they can both be sure the proper provisions are valued.

Plan year

January 1 through December 31

Membership eligibility

All permanent employees of the County of Sonoma or participating district, scheduled to work at least 50% of a full-time position are eligible to become a member of the Association.

Membership Tier	Membership Eligibility
Plan A	All General and Safety members with membership dates before January 1, 2013.
Plan B	All General and Safety members with membership dates on or after January 1, 2013, without reciprocity eligibility.

Final compensation and service for benefit determination

Final Compensation and Service	Plan Provision
Final average compensation	
Plan A	Highest consecutive one year of compensation earnable (§31462.1) (FAC1).
Plan B	Highest consecutive three years of pensionable compensation (§7522.10(c), §7522.32 and §7522.34) (FAC3).

Final Compensation and Service	Plan Provision
Compensation limit	
Plan A	For members with membership dates on or after July 1, 1996, compensation earnable is limited by IRC Section 401(a)(17). The limit for 2025 is $350,000. The limit is indexed for inflation on an annual basis.
Plan B	Pensionable compensation is limited to $155,081 for 2025 for an employer that is enrolled in Social Security. For an employer that is not enrolled in Social Security, the maximum amount for 2025 is 120% of $155,081, or $186,096. (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2025. (reference: Section 7522.10(d)).
Service	
All members	Years of service are generally based on a member's employment during a period of time for which deductions are made from their compensation.

Service retirement

Provision by Tier	Service Retirement Plan Provision
Eligibility	
General Plan A	Age 50 with 10 years of service credit, or age 70 regardless of service credit, or after 30 years of service credit regardless of age (§31672).
General Plan B	Age 52 with 5 years of service credit (§7522.20(a)) or age 70 regardless of service credit.
Safety Plan A	Age 50 with 10 years of service credit, or age 70 regardless of service credit, or after 20 years of service credit regardless of age (§31663.25).
Safety Plan B	Age 50 with 5 years of service credit (§7522.25(d)) or age 70 regardless of service credit.
Benefit amount	
All members	The benefit formula for all members varies by membership tier and retirement age. See the tables below for a selection of benefit formulas at various ages for each membership tier.
Maximum benefit	
Plan A	100% of final average compensation (§31676.17, §31664.1).
Plan B	None.

Service retirement benefit formula (sample ages)

Tier and Retirement Age	Service Retirement Benefit Formula by Tier
General Plan A County & Court (§31676.17)	
Age 50	2.00% × (FAC1 – $1,400) × Years of Service
Age 55	2.50% × (FAC1 – $1,400) × Years of Service
Age 60 and over	3.00% × (FAC1 – $1,400) × Years of Service
General Plan A SVFD (§31676.17)	
Age 50	2.00% × FAC1 × Years of Service
Age 55	2.50% × FAC1 × Years of Service
Age 60 and over	3.00% × FAC1 × Years of Service
General Plan B (§7522.20(a))	
Age 52	1.00% × FAC3 × Years of Service
Age 55	1.30% × FAC3 × Years of Service
Age 60	1.80% × FAC3 × Years of Service
Age 62	2.00% × FAC3 × Years of Service
Age 65	2.30% × FAC3 × Years of Service
Age 67 and over	2.50% × FAC3 × Years of Service
Safety Plan A County (§31664.1)	
Age 50 and over	3.00% × (FAC1 – $1,400) × Years of Service
Safety Plan A SVFD (§31664.1)	
Age 50 and over	3.00% × FAC1 × Years of Service
Safety Plan B (§7522.25(d))	
Age 50	2.00% × FAC3 × Years of Service
Age 55	2.50% × FAC3 × Years of Service
Age 57 and over	2.70% × FAC3 × Years of Service

Disability benefits

Non-service-connected disability

Provision by Tier	Non-Service-Connected Disability Plan Provision
Eligibility	
All members	Five years of service (§31720).
Benefit amount	
General Plan A	1.8% of final average compensation per year of service. If the benefit does not exceed one-third of final average compensation, the service is projected to 62, but the total projected benefit cannot be more than one-third of final average compensation (§31727.1). The service retirement benefit is payable, if greater.
Safety Plan A	1.8% of final average compensation per year of service. If the benefit does not exceed one-third of final average compensation, the service is projected to 55, but the total projected benefit cannot be more than one-third of final average compensation (§31727.2). The service retirement benefit is payable, if greater.
Plan B	1.5% of final average compensation per year of service. If the benefit does not exceed one-third of final average compensation, the service is projected to 65, but the total projected benefit cannot be more than one-third of final average compensation (§31727). The service retirement benefit is payable, if greater.

Service-connected disability

Provision by Tier	Service-Connected Disability Plan Provision
Eligibility	
All members	No age or service requirements (§31720).
Benefit amount	
All members	50% of the final average compensation or 100% of service retirement benefit, if larger (§31727.4).

Pre-retirement death benefits

Basic death benefit

Provision by Tier	Pre-Retirement Death (Basic Death) Benefit Plan Provision
Eligibility	
All members	No age or service requirements.
Vested members	Five years of service.
Benefit amount	
All members	Refund of employee contributions with interest, plus one month's compensation for each year of service, to a maximum of six months' compensation (§37181).
Vested members	60% of the greater of service retirement or non-service-connected disability benefit payable to surviving eligible spouse or registered domestic partner (§31765.1, §31781.1), in lieu of the basic lump sum benefit above.

Service-connected death benefit

Provision by Tier	Pre-Retirement Death (Service-Connected Death) Benefit Plan Provision
Eligibility	
All members	No age or service requirements.
Benefit amount	
All members	50% of final compensation or 100% of service retirement benefit, if greater, payable to spouse or registered domestic partner (§31787).

Post-retirement death benefits

Service retirement or non-service connected disability retirement

Unless another option was selected at retirement, 60% of member's unmodified allowance continued to eligible spouse or registered domestic partner (§31760.1).

Service-connected disability

Unless another option was selected at retirement, 100% of member's unmodified allowance continued to eligible spouse or registered domestic partner (§31786).

Leaving before retirement

Less than five years of service

Refund of accumulated employee contributions with interest. In lieu of a refund of employee contributions, a member may elect to leave contributions on deposit in the retirement fund (§31629.5). If contributions left on deposit, eligible for retirement benefits at age 70 (§31628).

Five or more years of service

Refund of accumulated employee contributions with interest. In lieu of a refund of employee contributions, a member may elect to leave contributions on deposit in the retirement fund (§31629.5). If contributions left on deposit, eligible for retirement benefits at any time after eligible to retire (§31700).

Member normal cost contributions

Please refer to *Section 4, Exhibit 3* for specific rates.

Provision by Tier	Member Normal Cost Contributions
General Plan A	Entry-age based rates that provide for an annuity at age 55 equal to 1/100 of FAC1. (§31621.8) General Plan A members hired on or before March 7, 1973 with 30 or more years of service are exempt from paying member normal cost contributions. This exemption does not apply to the member UAAL contributions discussed below.
Safety Plan A	Entry-age based rates that provide for an annuity at age 50 equal to 1/100 of FAC1. (§31639.25) Safety Plan A members with 30 or more years of service are exempt from paying member normal cost contributions. This exemption does not apply to the member UAAL contributions discussed below.
Plan B	50% of the total normal cost rate.

Member contribution to the UAAL

Plan A members covered under the Salary Resolution, ESC, DSA, DSLEM, SCDPDAA, SCLEA, SCLEMA and SCPDIA bargaining agreements pay an additional UAAL contribution (3.03% for General Plan A and 3.00% for Safety Plan A) until they end their employment with the County.

These rates are subtracted from the employer's UAAL rates, after adjustment for refundability.

Changes in Plan Provisions

There have been no changes in plan provisions since the prior valuation.

Exhibit 3: Member contribution rates

Comparison of Total Member Rate[1]

Entry Age	Based on December 31, 2024 Valuation	Based on December 31, 2023 Valuation	Change
General Plan A – County[2]			
25	8.49%	8.13%	0.36%
35	10.11%	9.79%	0.32%
45	11.89%	11.75%	0.14%
General Plan A – Court			
25	8.69%	8.39%	0.30%
35	10.35%	10.09%	0.26%
45	12.16%	12.09%	0.07%
General Plan A – SVFD			
25	8.49%	8.29%	0.20%
35	10.11%	9.97%	0.14%
45	11.89%	11.96%	(0.07)%
General Plan B[3]			
All ages	7.70%	7.70%	0.00%
Safety Plan A – County[4]			
25	9.83%	9.74%	0.09%
35	11.58%	11.43%	0.15%
45	13.52%	13.50%	0.02%

[1] For Plan A integrated members, contributions for the first $350 of monthly payroll are based on 2/3 of the above rates.
[2] Rates exclude an additional UAAL contribution rate of 3.03% of payroll for County members only. The additional UAAL contribution rate is payable in accordance with bargaining agreements that vary by bargaining unit.
[3] Plan B member rates are independent of entry age.
[4] Rates exclude an additional UAAL contribution rate of 3.00% of payroll for County members only.

Section 4: Actuarial Valuation Basis

Entry Age	Based on December 31, 2024 Valuation	Based on December 31, 2023 Valuation	Change
Safety Plan A – SVFD			
25	9.93%	9.98%	(0.05)%
35	11.69%	11.70%	(0.01)%
45	13.63%	13.76%	(0.13)%
Safety Plan B – County[1]			
All ages	14.78%	13.58%	1.20%
Safety Plan B – SVFD[1]			
All ages	15.06%	13.22%	1.84%

[1] Plan B member rates are independent of entry age.

General Plan A Members' Contribution Rates

(as a % of Monthly Payroll)

Entry Age	County First $350[1]	County Over $350	Court First $350[1]	Court Over $350	SVFD All Eligible Pay
16	4.84%	7.26%	4.96%	7.44%	7.26%
17	4.93%	7.39%	5.05%	7.57%	7.39%
18	5.01%	7.52%	5.13%	7.70%	7.52%
19	5.10%	7.65%	5.22%	7.84%	7.65%
20	5.19%	7.78%	5.32%	7.97%	7.78%
21	5.28%	7.92%	5.41%	8.11%	7.92%
22	5.37%	8.06%	5.50%	8.25%	8.06%
23	5.46%	8.20%	5.60%	8.40%	8.20%
24	5.56%	8.34%	5.70%	8.54%	8.34%
25	5.66%	8.49%	5.80%	8.69%	8.49%
26	5.76%	8.63%	5.90%	8.84%	8.63%
27	5.86%	8.78%	6.00%	9.00%	8.78%
28	5.96%	8.94%	6.10%	9.16%	8.94%
29	6.06%	9.09%	6.21%	9.32%	9.09%
30	6.17%	9.25%	6.32%	9.48%	9.25%
31	6.28%	9.42%	6.43%	9.65%	9.42%
32	6.39%	9.58%	6.54%	9.82%	9.58%
33	6.50%	9.76%	6.66%	9.99%	9.76%
34	6.62%	9.93%	6.78%	10.17%	9.93%
35	6.74%	10.11%	6.90%	10.35%	10.11%
36	6.86%	10.30%	7.03%	10.54%	10.30%
37	6.99%	10.49%	7.16%	10.74%	10.49%
38	7.12%	10.68%	7.29%	10.94%	10.68%

[1] For integrated members only.

Section 4: Actuarial Valuation Basis

Entry Age	County First $350[1]	County Over $350	Court First $350[1]	Court Over $350	SVFD All Eligible Pay
39	7.26%	10.89%	7.43%	11.15%	10.89%
40	7.37%	11.06%	7.55%	11.32%	11.06%
41	7.48%	11.23%	7.66%	11.49%	11.23%
42	7.60%	11.39%	7.77%	11.66%	11.39%
43	7.71%	11.56%	7.89%	11.83%	11.56%
44	7.82%	11.74%	8.00%	12.00%	11.74%
45	7.93%	11.89%	8.11%	12.16%	11.89%
46	8.03%	12.05%	8.21%	12.32%	12.05%
47	8.14%	12.22%	8.32%	12.48%	12.22%
48	8.28%	12.42%	8.46%	12.69%	12.42%
49	8.40%	12.60%	8.57%	12.86%	12.60%
50	8.50%	12.75%	8.67%	13.00%	12.75%
51	8.54%	12.81%	8.70%	13.05%	12.81%
52	8.53%	12.79%	8.67%	13.00%	12.79%
53	8.45%	12.68%	8.56%	12.84%	12.68%
54 and over	8.40%	12.61%	8.40%	12.61%	12.61%

Interest: 6.75% per annum

COLA: 0.00%

Mortality: See *Section 4, Exhibit 1*

Salary Increase: Inflation (2.50%) + "across-the-board" (0.50%) + merit and promotion (See *Section 4, Exhibit 1*)

Note: The above rates exclude an additional UAAL contribution rate of 3.03% of payroll for County members. The additional UAAL contribution rate is payable in accordance with bargaining agreements that vary by bargaining unit.

[1] For integrated members only.

General Plan B Members' Contribution Rates
(as a % of Monthly Payroll)

Entry Age	All Eligible Pay[1]
All ages	7.70%

Interest:	6.75% per annum
COLA:	0.00%
Mortality:	See *Section 4, Exhibit 1*
Salary Increase:	Inflation (2.50%) + "across-the-board" (0.50%) + merit and promotion (See *Section 4, Exhibit 1*)

[1] It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the maximum compensation that can be taken into account should be limited by the compensation limit as noted in *Section 4, Exhibit 2*, page 106 (§7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers for future years (§7522.10(d)).

Safety Plan A Members' Contribution Rates

(as a % of Monthly Payroll)

Entry Age	County First $350[1]	County Over $350	SVFD All Eligible Pay
16	5.69%	8.54%	8.62%
17	5.78%	8.68%	8.76%
18	5.87%	8.81%	8.90%
19	5.97%	8.95%	9.04%
20	6.06%	9.09%	9.18%
21	6.16%	9.23%	9.32%
22	6.25%	9.38%	9.47%
23	6.35%	9.53%	9.62%
24	6.45%	9.68%	9.77%
25	6.55%	9.83%	9.93%
26	6.66%	9.99%	10.09%
27	6.77%	10.15%	10.25%
28	6.87%	10.31%	10.41%
29	6.99%	10.48%	10.58%
30	7.10%	10.65%	10.75%
31	7.22%	10.82%	10.93%
32	7.34%	11.00%	11.11%
33	7.46%	11.19%	11.30%
34	7.59%	11.38%	11.49%
35	7.72%	11.58%	11.69%
36	7.86%	11.79%	11.90%
37	7.99%	11.99%	12.10%
38	8.12%	12.19%	12.30%
39	8.24%	12.37%	12.48%

[1] For integrated members only.

Section 4: Actuarial Valuation Basis

Entry Age	County First $350[1]	County Over $350	SVFD All Eligible Pay
40	8.36%	12.53%	12.65%
41	8.47%	12.71%	12.83%
42	8.61%	12.91%	13.02%
43	8.77%	13.16%	13.27%
44	8.95%	13.42%	13.54%
45	9.02%	13.52%	13.63%
46	9.03%	13.54%	13.64%
47	9.03%	13.54%	13.63%
48	8.88%	13.31%	13.38%
49 and over	8.73%	13.09%	13.09%

Interest: 6.75% per annum

COLA: 0.00%

Mortality: See *Section 4, Exhibit 1*

Salary Increase: Inflation (2.50%) + "across-the-board" (0.50%) + merit and promotion (See *Section 4, Exhibit 1*)

Note: The above rates exclude an additional UAAL contribution rate of 3.00% of payroll for County members.

[1] For integrated members only.

Section 4: Actuarial Valuation Basis

Safety Plan B Members' Contribution Rates
(as a % of Monthly Payroll)

Entry Age	County All Eligible Pay[1]	SVFD All Eligible Pay[1]
All ages	14.78%	15.06%

Interest:	6.75% per annum
COLA:	0.00%
Mortality:	See *Section 4, Exhibit 1*
Salary Increase:	Inflation (2.50%) + "across-the-board" (0.50%) + merit and promotion (See *Section 4, Exhibit 1*)

[1] It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the maximum compensation that can be taken into account should be limited by the compensation limit as noted in *Section 4, Exhibit 2*, page 106 (§7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers for future years (§7522.10(d)).

Appendix A: Definition of Pension Terms

The following list defines certain technical terms for the convenience of the reader:

Term	Definition
Actuarial accrued liability for actives	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial accrued liability for retirees and beneficiaries	Actuarial present value of lifetime benefits to existing retirees and beneficiaries. This sum takes account of life expectancies appropriate to the ages of the annuitants and the interest that the sum is expected to earn before it is entirely paid out in benefits.
Actuarial cost method	A procedure allocating the actuarial present value of future benefits to various time periods; a method used to determine the normal cost and the actuarial accrued liability that are used to determine the actuarially determined contribution.
Actuarial gain or 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. To the extent that actual experience differs from that assumed, actuarial accrued liabilities emerge which may be the same as forecasted or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., assets earn more than projected, salary increases are less than assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results yield actuarial liabilities that are larger than projected.
Actuarially equivalent	Of equal actuarial present value, determined as of a given date and based on a given set of actuarial assumptions.
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. Each such amount or series of amounts is: Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.) Multiplied by the probability of the occurrence of an event (such as survival, death, disability, withdrawal, etc.) on which the payment is conditioned, and Discounted according to an assumed rate (or rates) of return to reflect the time value of money.

Appendix A: Definition of Pension Terms

Term	Definition
Actuarial present value of future benefits	The actuarial present value of benefit amounts 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, anticipated future compensation, and future service credits. The actuarial present value of future benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund of member contributions or a future retirement benefit. Expressed another way, it is the value that would have to be invested on the valuation date so that the amount invested plus investment earnings would provide sufficient assets to pay all projected benefits and expenses when due.
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 plan, as well as actuarially determined contributions.
Actuarial value of assets	The value of the Plan's assets as of a given date, used by the actuary for valuation purposes. This may be the market or fair value of plan assets, but commonly plans use a smoothed value in order to reduce the year-to-year volatility of calculated results, such as the funded ratio and the actuarially determined contribution.
Actuarially determined	Values that have been determined utilizing the principles of actuarial science. An actuarially determined value is derived by application of the appropriate actuarial assumptions to specified values determined by provisions of the Plan.
Actuarially determined contribution	The employer's contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's funding policy. The actuarially determined contribution consists of the employer normal cost and the amortization payment.
Amortization method	A method for determining the amortization payment. The most common methods used are level dollar and level percentage of payroll. Under the level dollar method, the amortization payment is one of a stream of payments, all equal, whose actuarial present value is equal to the unfunded actuarial accrued liability. Under the level percentage of pay method, the amortization payment is one of a stream of increasing payments, whose actuarial present value is equal to the unfunded actuarial accrued liability. Under the level percentage of pay method, the stream of payments increases at the assumed rate at which total covered payroll of all active members will increase.
Amortization payment	The portion of the pension plan contribution, or actuarially determined contribution, that is intended to pay off the unfunded actuarial accrued liability.

Appendix A: Definition of Pension Terms

Term	Definition
Assumptions or actuarial assumptions	The estimates upon which the cost of the Plan is calculated, including: **Investment return** — the rate of investment yield that the Plan will earn over the long-term future; **Mortality rates** — the rate or probability of death at a given age for employees and retirees; **Retirement rates** — the rate or probability of retirement at a given age or service; **Disability rates** — the rate or probability of disability retirement at a given age; **Withdrawal rates** — the rate or probability at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement; **Salary increase rates** — the rates of salary increase due to inflation, real wage growth and merit and promotion increases.
Closed amortization period	A specific number of years that is counted down by one each year, and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 20 years, it is 19 years at the end of one year, 18 years at the end of two years, etc. See “open amortization period.”
Decrements	Those causes/events due to which a member’s status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.
Defined benefit plan	A retirement plan in which benefits are defined by a formula based on the member’s compensation, age and/or years of service.
Defined contribution plan	A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan’s earnings are allocated to each account, and each member’s benefits are a direct function of the account balance.
Employer normal cost	The portion of the normal cost to be paid by the employer. This is equal to the normal cost less expected member contributions.
Experience study	A periodic review and analysis of the actual experience of the Plan that may lead to a revision of one or more actuarial assumptions. Actual rates of decrement and salary increases are compared to the actuarially assumed values and modified based on recommendations from the Actuary.
Funded ratio	The ratio of the valuation value of assets to the actuarial accrued liability. Plans sometimes also calculate a market funded ratio, using the market value of assets, rather than the valuation value of assets.
GASB 67 and GASB 68	Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68. These are the governmental accounting standards that set the accounting rules for public retirement systems and the employers that sponsor or contribute to them. Statement No. 68 sets the accounting rules for the employers that sponsor or contribute to public retirement systems, while Statement No. 67 sets the rules for the systems themselves.

Appendix A: Definition of Pension Terms

Term	Definition
Investment return	The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.
Negative amortization	Negative amortization is a result of an increase in the unfunded actuarial accrued liability when the amortization payment is less than the interest accrued on the unfunded actuarial accrued liability.
Normal cost	The portion of the actuarial present value of future benefits and expenses, if applicable, allocated to a valuation year by the actuarial cost method. Any payment with respect to an unfunded actuarial accrued liability is not part of the normal cost (see “amortization payment”). For pension plan benefits that are provided in part by employee contributions, normal cost refers to the total of member contributions and employer normal cost unless otherwise specifically stated.
Open amortization period	An open amortization period is one which is used to determine the amortization payment but which does not change over time. If the initial period is set as 30 years, the same 30-year period is used in each future year in determining the amortization period.
Unfunded actuarial accrued liability	The excess of the actuarial accrued liability over the valuation value of assets. This value may be negative, in which case it may be expressed as a negative unfunded actuarial accrued liability, also called the funding surplus or an overfunded actuarial accrued liability.
Valuation date or actuarial valuation date	The date as of which the value of assets is determined and as of which the Actuarial Present Value of Future Benefits is determined. The expected benefits to be paid in the future are discounted to this date.
Valuation value of assets	The actuarial value of assets reduced by the value of non-valuation reserves.

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