

Fresno County Employees' Retirement Association

**Actuarial Valuation and Review
as of June 30, 2024**



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December 5, 2024

Board of Retirement
Fresno County Employees' Retirement Association
7772 N Palm Avenue
Fresno, CA 93711

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of June 30, 2024. It summarizes the actuarial data used in the valuation, analyzes the preceding year's experience, and establishes the funding requirements for fiscal year 2025–2026.

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, based upon information provided by the staff of FCERA 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 FCERA and reasonable expectations. In addition, in our opinion, the combined effect of these assumptions is expected to have no significant bias.

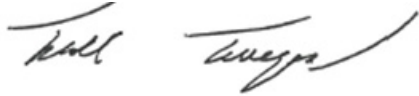
Board of Retirement
Fresno County Employees' Retirement Association
December 5, 2024

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.

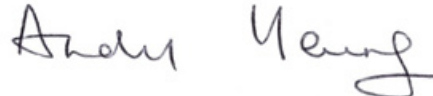
We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,


Segal



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



Andy Yeung, ASA, MAAA, FCA, EA
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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 Fresno County Employees' Retirement Association ("FCERA" or "the Association" or "the Plan") as of June 30, 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 of Retirement;
- The characteristics of covered active members, inactive members and retired members and beneficiaries as of June 30, 2024, provided by the staff of FCERA;
- The assets of the Association as of June 30, 2024, provided by the staff of FCERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board of Retirement for the June 30, 2024 valuation;
- Other actuarial assumptions regarding employee terminations, retirement, death, etc. adopted by the Board of Retirement for the June 30, 2024 valuation; and
- The funding policy adopted by the Board of Retirement.

Certain disclosure information required by Governmental Accounting Standards Board (GASB) Statements No. 67 and 68 as of June 30, 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.

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 actuarial accrued liabilities. In this valuation, we have applied the funding policy originally approved by the Board in 2015 and reaffirmed by the Board in 2017 and 2023. Details of the funding policy are provided in *Section 4, Exhibit 1* starting on page 97.

Section 1: Actuarial Valuation Summary

The rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2025 through June 30, 2026.

Valuation highlights

Funding measures

1. The funded ratio (the ratio of valuation value of assets to the actuarial accrued liability) increased from 85.1% to 85.9%. 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 81.9% to 85.8%. 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 plan's funded ratios is provided in *Section 2, Subsection G* on pages 40 and 41.
2. The unfunded actuarial accrued liability (the difference between the actuarial accrued liability and the valuation value of assets) decreased from \$1.11 billion to \$1.09 billion. The decrease in unfunded actuarial accrued liability (UAAL) is primarily due to contributions made to amortize the UAAL, offset somewhat by the investment return on the valuation value (i.e., after asset smoothing) less than the assumed rate of 6.50% used in the June 30, 2023 valuation, individual salary increases greater than expected for active members, and actual contributions less than expected. 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 74. A graphical projection of the UAAL amortization balances and payments is provided in *Section 3, Exhibit I* starting on page 84.

3. The UAAL amortization layers established as of the June 30, 2009 valuation have been fully amortized as of June 30, 2024 which resulted in a decrease in the UAAL contribution rate of about 4.25% of payroll for the plan in total. For illustration we have continued to show the 2009 layers in *Section 3, Exhibit H*, but with zero "Outstanding Balance" and "Years Remaining". Note that the UAAL contributions are expected to continue to decline in the next few valuations as other layers are fully amortized, as shown in the graphical projection found in *Section 3, Exhibit I* on page 85.

Actuarial experience

4. The net actuarial loss of \$91.1 million, or 1.18% of actuarial accrued liability, is due to an investment loss of \$7.4 million, or 0.10% of actuarial accrued liability and a loss from sources other than investments of \$83.7 million, or 1.08% of the actuarial accrued liability, prior to reflection of assumption changes, if applicable. The loss from sources other than investments was primarily due to individual salary increases greater than expected.

Section 1: Actuarial Valuation Summary

5. The rate of return on the market value of assets was 10.30% for the year ending June 30, 2024. The return on the valuation value of assets was 6.38% after recognizing a portion of this year's investment gain and a portion of prior years' investment gains and losses. This resulted in an actuarial loss when measured against the assumed rate of return of 6.50% used in the June 30, 2023 valuation. This actuarial investment loss (after asset smoothing) increased the average employer contribution rate by 0.11% of payroll.

Contributions

6. The average employer rate calculated in this valuation has decreased from 48.76% to 44.02% of payroll. This decrease is primarily due to effect of June 30, 2009 UAAL amortization layers becoming fully amortized and amortizing prior year's UAAL over a larger than expected projected total payroll, offset somewhat by the investment return on the valuation value (i.e., after asset smoothing) less than the assumed rate of 6.50% used in the June 30, 2023 valuation, individual salary increases greater than expected, and actual contributions less than expected. A complete reconciliation of the Association's aggregate employer rate is provided in *Section 2, Subsection F* on page 33.

As noted on page 85, the UAAL contributions in the next five to ten years would continue to fluctuate. If all the actuarial assumptions were to be met, the UAAL contributions as determined in the June 30, 2024 valuation of \$171 million would drop to \$129 million in the June 30, 2025 valuation. Then, in the valuations between June 30, 2026 and 2032, the annual UAAL contributions would be expected to fluctuate in the range of \$113 million to \$144 million. The Board might want to consider discussing with the employers and potentially authorizing Segal to bring back a proposal to align certain gain and loss layers that, if approved by the Board, could result in more level UAAL contributions in the next five to ten years while continuing to fund the plan.¹

7. The average member rate calculated in this valuation has decreased from 9.49% to 9.48% of payroll due to changes in active member demographics. A complete reconciliation of the Association's aggregate 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* of this report.

8. In preparing the breakdown of the total costs of the General Tier 1 plan into the cost to provide the "Regular" and the "Settlement" benefits, we have followed the FCERA practice of allocating the cost to provide a benefit under Section 31676.12 as the cost for the "Regular" benefit and allocating the difference between this "Regular" benefit cost and the cost to provide a benefit under Section 31676.14 plus Section 31627 as the "Settlement" benefit. In particular, this means that the difference between benefits under Sections 31676.12 and 31676.14 is considered "Settlement" and so under the Settlement Agreement could be funded out of future undistributed excess earnings. Based on discussions with Counsel, the Agreement might not be

¹ Under the Board's funding policy, the Board reserves the right to combine and/or restart amortization periods when the Board considers that it is appropriate to do so.

Section 1: Actuarial Valuation Summary

clear as to what should be considered the “Settlement” benefit. We will require guidance from the Board if and when the Board and Counsel consider the use of any future undistributed excess earnings to pay the cost of the “Settlement” benefit.

9. 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 meets this standard.

Future expectations

10. The total unrecognized net investment **loss** as of June 30, 2024 is \$9.2 million as compared to an unrecognized net investment **loss** of \$232.1 million in the previous valuation. This net deferred loss of \$9.2 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.

The net deferred loss of \$9.2 million represent about 0.1% of the market value of assets. Unless offset by future investment gains or other favorable experience, the recognition of the \$9.2 million net market loss 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 loss was recognized immediately in the valuation value of assets, the funded percentage would decrease from 85.9% to 85.8%.

For comparison purposes, if the net deferred loss in the June 30, 2023 valuation had been recognized immediately in the June 30, 2023 valuation, the funded percentage would have decreased from 85.1% to 81.9%.

- b. If the net deferred loss was recognized immediately in the valuation value of assets, the average employer contribution rate would increase from 44.02% to 44.16% of payroll.

For comparison purposes, if the net deferred loss in the June 30, 2023 valuation had been recognized immediately in the June 30, 2023 valuation, the average employer contribution rate would have increased from 49.26% to 53.04% of payroll.

11. Footnote 2 in the Determination of Actuarial Value of Assets for Year Ended June 30, 2024 on page 23 shows that under the asset smoothing method the \$9 million in the net deferred loss will be recognized in the next four and a half years (i.e., nine semi-annual periods), but in a very uneven pattern. In particular, there will be a gain of \$21 million recognized next year, followed in successive following years by a loss of \$106 million, a loss of \$21 million, a gain of \$76 million, and finally a gain of \$21 million. This means that, absent any new gains or losses in the future, there will be some relatively large swings in the employer contribution rate that are offsetting at the end of the four and a half years.

In keeping with the Board’s funding policy and consistent with a similar action taken by the Board in 2012 of combining net deferred gain as of June 30, 2011, the asset smoothing method could be adjusted by combining the net deferred loss of \$9 million from the current valuation into a single four and a half year smoothing “layer” and thereby recognizing the net deferred loss of \$9 million over the next four and a half years in nine level amounts of approximately \$1 million each semi-annual period.

Section 1: Actuarial Valuation Summary

This would reduce the volatility associated with the current pattern of the deferred gain/loss recognition and thereby result in more stable funded ratios on an actuarial value basis and more level employer contribution rates.

Please note that this change would have no impact on the current June 30, 2024 valuation results as the total amount of the net deferred loss as of June 30, 2024 remains unchanged. Also, note that we recommend using a four-and-a-half-year smoothing period for the combined net deferred loss as that will complete the recognition of the net loss over the same time period as under the current separate smoothing layers. We will provide more discussion of this policy option during our presentation of the June 30, 2024 valuation.

Risk

12. It is important to note that this actuarial valuation is based on plan assets as of June 30, 2024. The Plan's funded status does not reflect short-term fluctuations of the market, 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.
13. 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. While we have not been engaged to perform a detailed analysis of the potential range of the impact of risk to the Association's future financial condition, we have included a brief discussion of some risks that may affect the Association in *Section 2, Subsection 1*, starting on page 43. This discussion of risks is included to satisfy the disclosures required by the Actuarial Standard of Practice No. 51 (ASOP 51).
14. The risk assessment in *Section 2, Subsection 1* includes the disclosure of a "Low-Default-Risk Obligation Measure" (LDRM). This disclosure, along with commentary on the significance of the LDRM, is a new requirement under Actuarial Standard of Practice No. 4 (ASOP 4) for all pension funding actuarial valuation reports and can be found starting on page 45.
15. For a plan such as that offered by the Retirement Association that may utilize excess earnings to provide contribution rate offsets and additional settlement and non-statutory benefits, we are required to indicate in the valuation report that the possible impact of any such application of future excess earnings on the future financial condition of the Association has not been explicitly measured in the valuation. In particular, the balance of \$1.86 billion (negative) in the Contra Tracking Account has to be fully restored before any excess earnings can be utilized in the future to provide any of the above offsets and benefits under the Board's interest crediting policy.

GASB

16. 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 June 30, 2024,

Section 1: Actuarial Valuation Summary

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.

Section 1: Actuarial Valuation Summary

Summary of key valuation results

Average Employer Contribution as of June 30
(\$ in '000s)

Tier	2024 Contribution Rate	2024 Annual Amount ¹	2023 Contribution Rate	2023 Annual Amount ¹
General				
• General Tier 1	49.65%	\$70,969	54.17%	\$77,430
• General Tier 2	47.06%	3,451	51.59%	3,782
• General Tier 3	47.37%	13,729	51.80%	15,013
• General Tier 4	39.14%	6,516	43.41%	7,226
• General Tier 5	37.02%	106,622	41.44%	119,352
Safety				
• Safety Tier 1	65.97%	23,174	72.07%	25,317
• Safety Tier 2	65.77%	2,898	72.15%	3,179
• Safety Tier 4	53.83%	3,450	59.40%	3,807
• Safety Tier 5	48.82%	25,038	55.08%	28,250
All Categories Combined	44.02%	\$255,847	48.76%	\$283,356

¹ Amounts are based on June 30, 2024 projected annual compensation shown on the page 37.

Section 1: Actuarial Valuation Summary

Average Member Contribution as of June 30 (\$ in '000s)

Tier	2024 Contribution Rate	2024 Annual Amount ¹	2023 Contribution Rate	2023 Annual Amount ¹
General				
• General Tier 1	10.56%	\$15,094	10.56%	\$15,094
• General Tier 2	7.31%	536	7.33%	537
• General Tier 3	8.60%	2,493	8.58%	2,487
• General Tier 4	7.84%	1,305	7.80%	1,298
• General Tier 5	7.96%	22,926	7.95%	22,897
Safety				
• Safety Tier 1	13.75%	4,830	13.95%	4,900
• Safety Tier 2	12.26%	540	12.25%	540
• Safety Tier 4	11.12%	713	11.10%	711
• Safety Tier 5	13.00%	6,667	13.09%	6,714
All Categories Combined	9.48%	\$55,104	9.49%	\$55,178

¹ Amounts are based on June 30, 2024 projected annual compensation shown on the page 37.

Section 1: Actuarial Valuation Summary

Valuation Results as of June 30 (\$ in '000s)

Line Description	2024	2023
Actuarial accrued liability		
• Total actuarial accrued liability	\$7,749,850	\$7,442,829
– Retired members and beneficiaries	4,929,963	4,804,332
– Inactive members ¹	416,101	397,062
– Active members	2,403,786	2,241,435
• Normal cost for plan year beginning June 30 ²	135,498	126,672
Assets		
• Market value of assets (MVA) ³	\$6,650,853	\$6,099,025
• Actuarial value of assets (AVA) ³	6,660,013	6,331,112
• AVA as a percentage of MVA	100.14%	103.81%
• Valuation value of assets (VVA) ³	\$6,660,013	\$6,331,112
Funded status		
• Unfunded actuarial accrued liability on MVA basis	\$1,098,997	\$1,343,804
• Funded percentage on MVA basis	85.82%	81.94%
• Unfunded actuarial accrued liability on VVA basis	\$1,089,837	\$1,111,717
• Funded percentage on VVA basis	85.94%	85.06%
Key assumptions		
• Net investment return	6.50%	6.50%
• Inflation rate	2.50%	2.50%
• Payroll growth	3.00%	3.00%
• Cost-of-living adjustments		
– Tiers with 3.00% COLA	2.75%	2.75%
– Tiers without COLA	0.00%	0.00%

¹ Includes inactive members with member contributions on deposit with less than five years of service.

² Includes administrative expense load.

³ Excludes the balances in the following non-valuation reserves: (1) Supplemental COLA and (2) Retiree Health Benefit (BOR).

Section 1: Actuarial Valuation Summary

Demographic Data as of June 30

Demographic Data by Status	2024	2023	Change
Active members			
• Number of members	7,910	7,650	3.4%
• Average age	41.7	41.8	(0.1)
• Average service	9.8	10.0	(0.2)
• Total projected compensation	\$581,141,061	\$529,840,359	9.7%
• Average projected compensation	\$73,469	\$69,260	6.1%
Retired members and beneficiaries			
• Number of members	8,490	8,374	1.4%
– Service retired	6,807	6,756	0.8%
– Disability retired	420	413	1.7%
– Beneficiaries	1,263	1,205	4.8%
• Average age	71.0	70.7	0.3
• Average monthly benefit ¹	\$3,579	\$3,489	2.6%
Inactive members			
• Number of members ²	5,404	5,187	4.2%
• Average age	43.9	43.7	0.2
Total members	21,804	21,211	2.8%

¹ Benefits include regular and settlement benefits but exclude non-vested supplemental benefits, if any.

² Includes inactive members with member contributions on deposit with less than five years of service.

Section 1: Actuarial Valuation Summary

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 staff of FCERA. 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 staff of FCERA. 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 the Association 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 Association'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 FCERA upon delivery and review. FCERA 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 June 30	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	7,001	3,163	6,839	10,002	1.43	0.98
2016	7,297	3,289	7,032	10,321	1.41	0.96
2017	7,353	3,411	7,200	10,611	1.44	0.98
2018	7,458	3,627	7,445	11,072	1.48	1.00
2019	7,676	3,873	7,651	11,524	1.50	1.00
2020	7,873	4,014	7,838	11,852	1.51	1.00
2021	7,660	4,308	7,982	12,290	1.60	1.04
2022	7,466	4,848	8,175	13,023	1.74	1.09
2023	7,650	5,187	8,374	13,561	1.77	1.09
2024	7,910	5,404	8,490	13,894	1.76	1.07

¹ Includes inactive members with member contributions on deposit with less than five years of service.

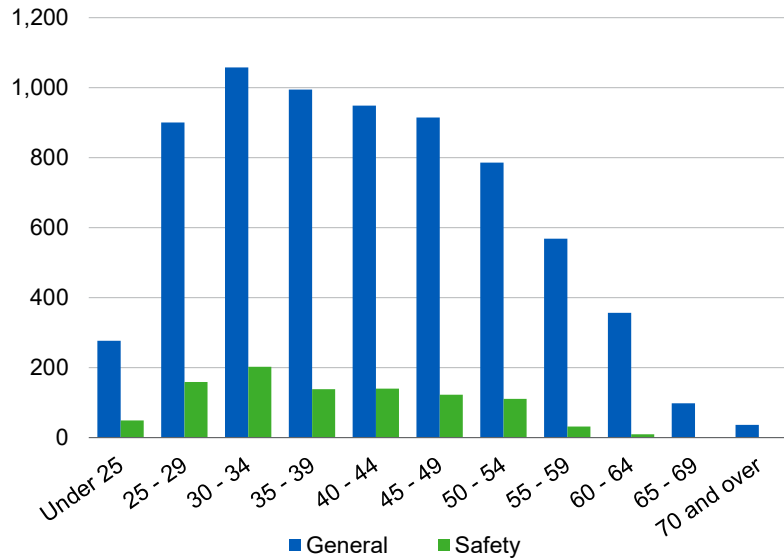
Section 2: Actuarial Valuation Results

Active members

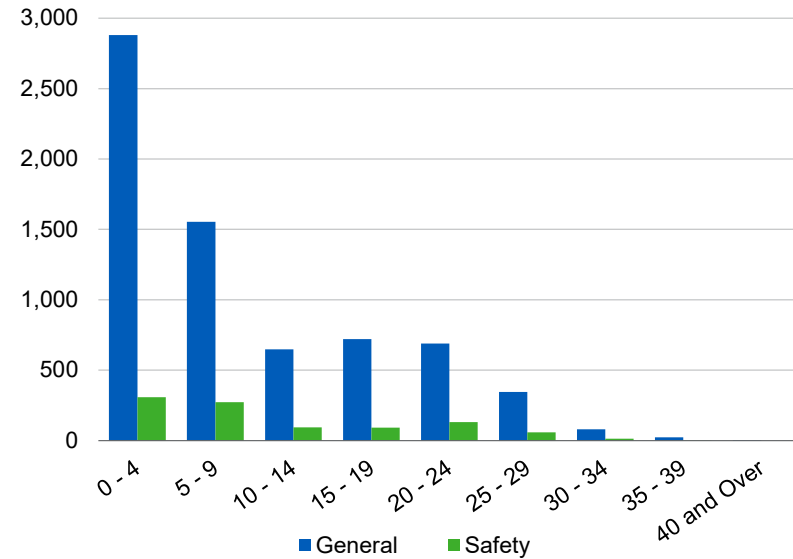
Demographic Data	As of June 30, 2024	As of June 30, 2023	Change
Active members	7,910	7,650	3.4%
Average age ¹	41.7	41.8	(0.1)
Average years of service	9.8	10.0	(0.2)
Average compensation	\$73,469	\$69,260	6.1%

Distribution of Active Members as of June 30, 2024

Actives by Age



Actives by Years of Service



Inactive members

Demographic Data	As of June 30, 2024	As of June 30, 2023	Change
Inactive members ²	5,404	5,187	4.2%

¹ Among the active members, there were none with unknown age information.

² Includes inactive members with member contributions on deposit with less than five years of service.

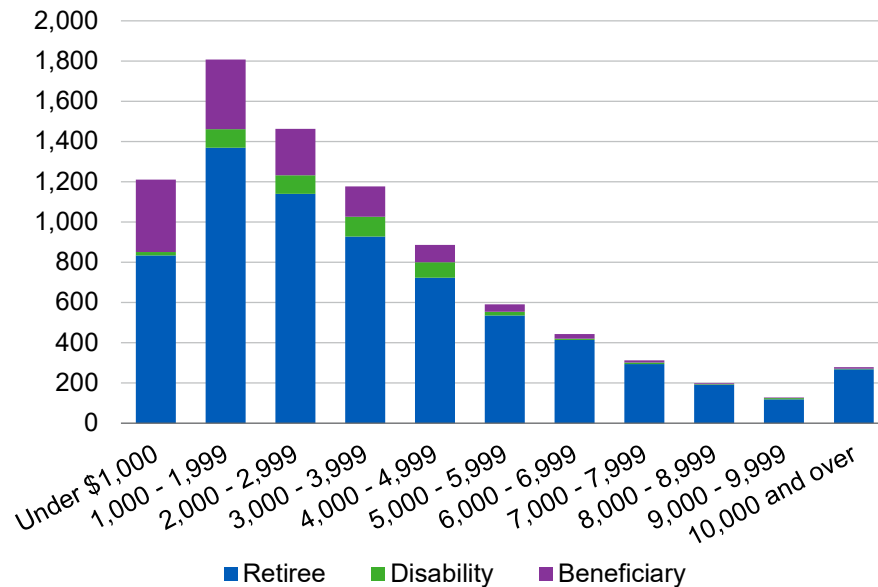
Section 2: Actuarial Valuation Results

Retired members and beneficiaries

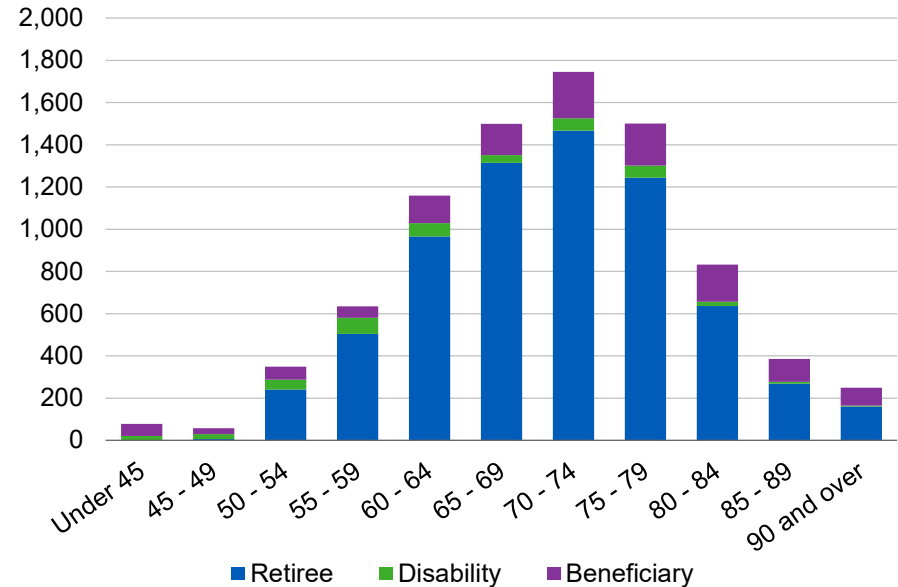
Demographic Data	As of June 30, 2024	As of June 30, 2023	Change
Retired members	7,227	7,169	0.8%
Beneficiaries	1,263	1,205	4.8%
Average age	71.0	70.7	0.3
Average monthly amount	\$3,579	\$3,489	2.6%
Total monthly amount	\$30,382,344	\$29,214,631	4.0%

Distribution of Retired Members and Beneficiaries as of June 30, 2024

By Type and Monthly Amount



By Type and Age



Section 2: Actuarial Valuation Results

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 June 30	Active Count	Active Average Age	Active Average Service	Pay Status Count	Pay Status Average Age	Pay Status Monthly Amount
2015	7,001	43.5	10.9	6,839	68.9	\$2,823
2016	7,297	43.2	10.5	7,032	69.2	2,855
2017	7,353	43.0	10.4	7,200	69.4	2,919
2018	7,458	42.6	10.2	7,445	69.6	3,023
2019	7,676	42.3	10.0	7,651	69.8	3,112
2020	7,873	42.1	9.9	7,838	70.1	3,210
2021	7,660	42.3	10.2	7,982	70.3	3,278
2022	7,466	42.1	10.3	8,175	70.5	3,384
2023	7,650	41.8	10.0	8,374	70.7	3,489
2024	7,910	41.7	9.8	8,490	71.0	3,579

Section 2: Actuarial Valuation Results

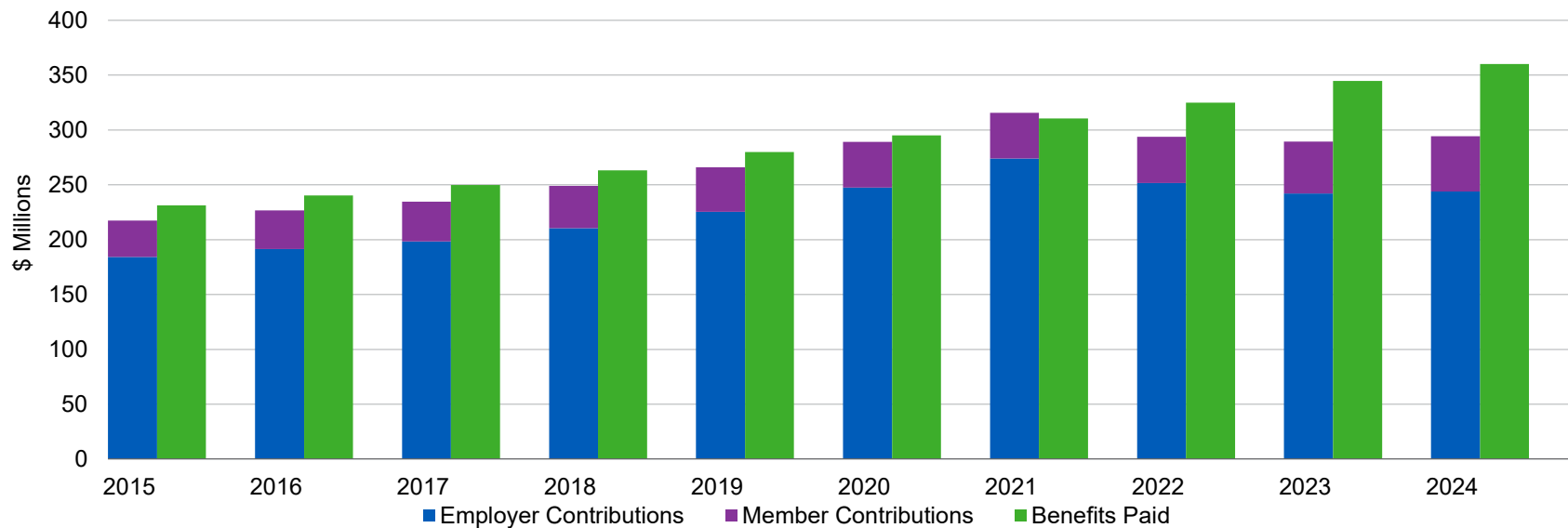
B. Financial information

Retirement plan funding anticipates that, over the long term, both contributions and investment earnings (less investment fees) will be needed to cover benefit payments and administrative expenses. 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 Made with Benefits for Years Ended June 30



Section 2: Actuarial Valuation Results

Determination of Actuarial Value and Valuation Value of Assets for Year Ended June 30, 2024

Step	Actual Return	Expected Return ¹	Investment Gain/(Loss)	Percent Deferred	Amount
1. Market value of assets					\$6,650,853,408
2. Calculation of deferred return					
a. Six months ended December 31, 2019	\$226,805,702	\$172,623,958	\$54,181,744	0%	\$0
b. Six months ended June 30, 2020	(213,839,211)	180,349,026	(394,188,236)	10	(39,418,824)
c. Six months ended December 31, 2020	863,304,015	172,771,210	690,532,805	20	138,106,561
d. Six months ended June 30, 2021	485,229,261	202,970,992	282,258,269	30	84,677,481
e. Six months ended December 31, 2021	157,495,513	219,587,729	(62,092,216)	40	(24,836,886)
f. Six months ended June 30, 2022	(779,480,943)	224,443,175	(1,003,924,118)	50	(501,962,059)
g. Six months ended December 31, 2022	50,652,170	182,267,939	(131,615,768)	60	(78,969,461)
h. Six months ended June 30, 2023	486,732,832	182,910,553	303,822,279	70	212,675,595
i. Six months ended December 31, 2023	207,490,844	197,591,894	9,898,950	80	7,919,160
j. Six months ended June 30, 2024	417,205,119	203,151,242	214,053,877	90	192,648,489
k. Total deferred return²					\$(9,159,944)
3. Actuarial value of assets 1 – 2k					\$6,660,013,352
4. Ratio of actuarial to market value 3 ÷ 1					100.1%
5. Actuarial value of assets corridor limits					
a. Lower limit — 70% of MVA					\$4,655,597,385
b. Upper limit — 130% of MVA					\$8,646,109,430
6. Non-valuation reserves					
a. Interest Fluctuation Reserve					\$0
b. Undistributed Reserve					0
c. Supplemental COLA					0
d. Retiree health benefit (BOR)					0
e. Subtotal Sum of 6a through 6d					\$0
7. Valuation value of assets 3 – 6e					\$6,660,013,352

Note: Results may not add due to rounding.

¹ The expected market return has been calculated by FCERA using an investment return assumption consistent with that used in the applicable actuarial valuation to set the employer and employee contribution rates for that period.

² The total deferred return as of June 30, 2024 recognized in each of the next five years:

a. Amount recognized on June 30, 2025	\$21,167,992
b. Amount recognized on June 30, 2026	(105,745,572)
c. Amount recognized on June 30, 2027	(21,160,544)
d. Amount recognized on June 30, 2028	75,172,793
e. Amount recognized on June 30, 2028	21,405,388
f. Subtotal	\$(9,159,944)

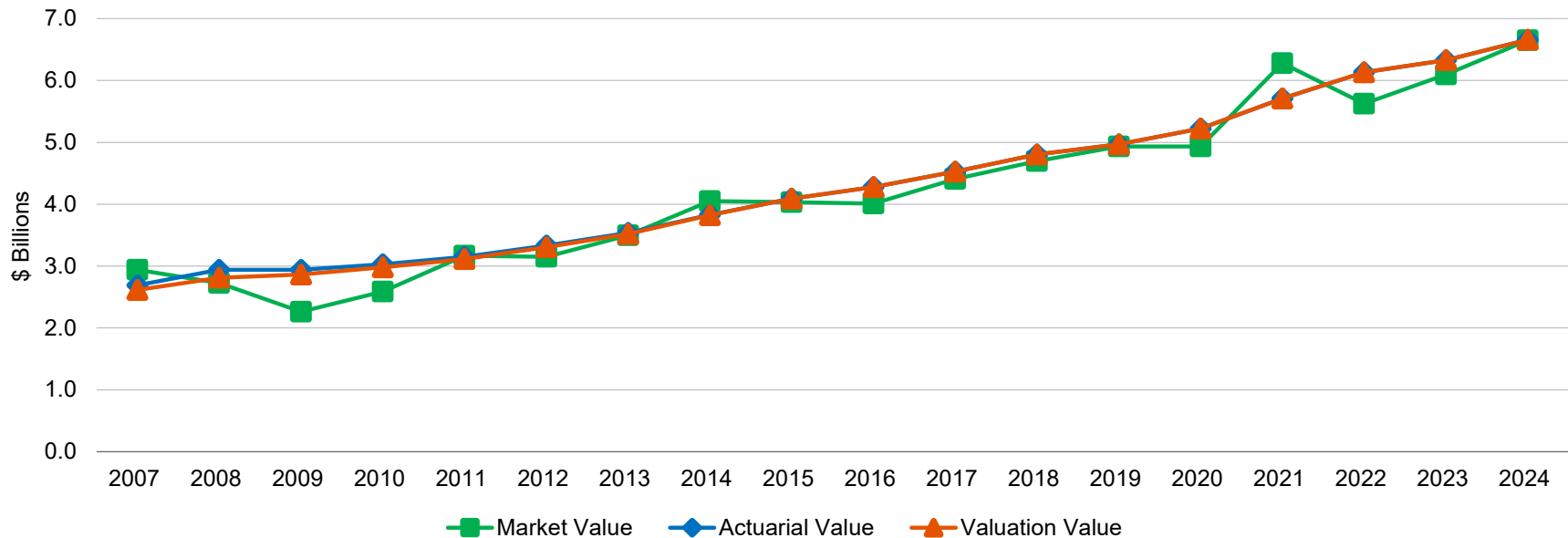
Section 2: Actuarial Valuation Results

Asset history

The market value, actuarial value and valuation value of assets are representations of the Association'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 Association'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.

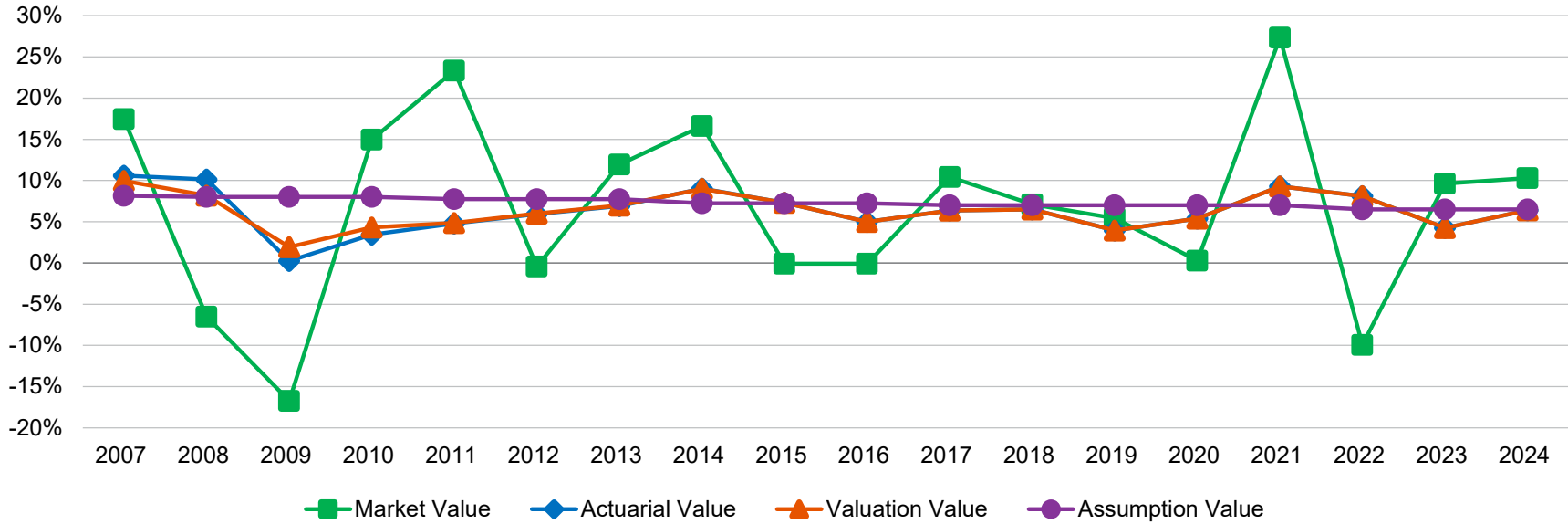
Market Value, Actuarial Value, and Valuation Value of Assets as of June 30



Section 2: Actuarial Valuation Results

Historical investment returns

Market, Actuarial and Valuation Rates of Return for Years Ended June 30



Legend	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
■ Market rate	17.46%	(6.51%)	(16.73%)	14.98%	23.34%	(0.44%)	11.95%	16.63%	(0.10%)	(0.11%)	10.44%	7.11%	5.43%	0.26%	27.33%	(9.93%)	9.61%	10.30%
◆ Actuarial rate	10.61%	10.14%	0.24%	3.44%	4.78%	5.94%	6.91%	9.03%	7.29%	4.97%	6.35%	6.49%	3.93%	5.38%	9.29%	8.10%	4.24%	6.38%
▲ Valuation rate	9.95%	8.17%	1.93%	4.31%	4.84%	6.01%	6.96%	8.98%	7.31%	4.97%	6.36%	6.49%	3.93%	5.38%	9.29%	8.10%	4.24%	6.38%
● Assumed rate	8.16%	8.00%	8.00%	8.00%	7.75%	7.75%	7.75%	7.25%	7.25%	7.25%	7.00%	7.00%	7.00%	7.00%	7.00%	6.50%	6.50%	6.50%

Average Rates of Return	Market Value	Actuarial Value	Valuation Value
Most recent five-year geometric average return	6.81%	6.66%	6.66%
Most recent 10-year geometric average return	5.64%	6.23%	6.23%
Most recent 15-year geometric average return	8.04%	6.15%	6.22%

Section 2: Actuarial Valuation Results

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 no changes in actuarial assumptions reflected in this 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 June 30, 2024

Source	Amount
1. Net loss from investments ¹	\$7,384,000
2. Net loss from contributions	17,956,000
3. Net loss from other experience ²	65,732,000
4. Net experience loss	\$91,072,000

¹ Details on next page.

² See *Subsection E* for further details. Does not include the effect of plan, method or assumption changes, if any.

Section 2: Actuarial Valuation Results

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 Association's investment policy.

For valuation purposes, the assumed rate of return on the valuation value of assets is 6.50% based on the June 30, 2023 valuation. The actual rate of return on a valuation basis for the 2023-2024 plan year was 6.38% after recognizing a portion of this year's investment gain and a portion of prior years' investment gains and losses. Since the actual return for the year was less than the assumed return, the Association experienced an actuarial loss during the year ended June 30, 2024 with regard to its investments.

Investment Experience for Year Ended June 30, 2024

Line Description	Market Value	Actuarial Value	Valuation Value
1. Net investment income	\$624,695,963	\$401,769,597	\$401,769,597
2. Average value of assets	6,062,591,447	6,294,677,757	6,294,677,757
3. Rate of return 1 ÷ 2	10.30%	6.38%	6.38%
4. Assumed rate of return	6.50%	6.50%	6.50%
5. Expected investment income 2 × 4	394,068,444	409,154,054	409,154,054
6. Investment gain/(loss) 1 – 5	\$230,627,519	\$(7,384,458)	\$(7,384,458)

Section 2: Actuarial Valuation Results

Contributions

Contributions for the year ended June 30, 2024 totaled \$294.3 million, compared to the projected amount of \$311.7 million. This resulted in a loss of \$18.0 million for the year, when adjusted for timing.

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)
- Cost-of-living adjustments (COLAs) greater or lower than anticipated.

The net loss from this other experience for the year ended June 30, 2024 amounted to \$65.7 million, which is 0.8% of the actuarial accrued liability. See *Section 2, Subsection E* for a detailed development of the unfunded actuarial accrued liability.

Section 2: Actuarial Valuation Results

D. Other changes impacting the actuarial accrued liability

Actuarial assumptions and methods

There were no changes in actuarial assumptions or method since the prior valuation.

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*.

Section 2: Actuarial Valuation Results

E. Unfunded actuarial accrued liability

Development of Unfunded Actuarial Accrued Liability for Year Ended June 30, 2024 (\$ in '000s)

Line Description	Amount
1. Unfunded actuarial accrued liability at beginning of year	\$1,111,717
2. Normal cost at middle of year ¹	124,445
3. Expected administrative expenses	6,891
4. Expected employer and member contributions	(311,740)
5. Interest to end of year	67,452
6. Expected unfunded actuarial accrued liability at end of year	\$998,765
7. Changes due to:	
a. Investment return less than expected, after asset smoothing	\$7,384
b. Actual contributions less than expected under funding policy ²	17,956
c. Individual salary increases greater than expected	73,309
d. COLA increases greater than expected ³	3,171
e. Gain from active to service and disability retirement experience during 2023/2024	(7,258)
f. Other net experience gain ⁴	(3,490)
g. Total changes	\$91,072
8. Unfunded actuarial accrued liability at end of year 6 + 7g	\$1,089,837

Note: The sum of items 7c through 7f equals the “Net (gain)/loss from other experience” shown in *Section 2, Subsection C*.

¹ Excludes administrative expense load.

² Mainly from scheduled one-year lag in implementing contribution rates from June 30, 2023 valuation.

³ The annual CPI for the West Region used by the Board to set April 1, 2024 COLA came in at 4.5%. For Tiers with a maximum 3.0% COLA, there will be an actuarial loss between the expected benefit increase (2.75% assumed annually starting April 1, 2024 in the June 30, 2023 valuation before implementation of any past COLA banks) and the actual benefit increase (3.0% granted on April 1, 2024 and on every April 1 thereafter until the COLA banks used to track the difference between the 4.5% actual CPI and the actual COLA granted are fully exhausted).

⁴ Other differences in actual versus expected experience including (but not limited to) mortality and termination experience.

Section 2: Actuarial Valuation Results

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 June 30, 2024, the average recommended employer contribution is 44.02% of payroll.

The Board sets the funding policy used to calculate the recommended contribution based on layered 15-year¹ 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 15 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 Association is expected to be fully amortized by 2039, 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 the 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 15-year periods.

Section 2: Actuarial Valuation Results

Average Recommended Employer Contribution Calculated as of June 30 (\$ in '000s)

Line Description	2024 Amount	2024 % of Projected Compensation	2023 Amount	2023 % of Projected Compensation
1. Total normal cost ¹	\$135,498	23.31%	\$126,672	23.91%
2. Expected member normal cost contributions	55,104	9.48%	50,765	9.58%
3. Employer normal cost 1 – 2	\$80,394	13.83%	\$75,907	14.33%
4. Actuarial accrued liability	7,749,850		7,442,829	
5. Valuation value of assets	6,660,013		6,331,112	
6. Unfunded actuarial accrued liability 4 – 5	\$1,089,837		\$1,111,717	
7. Payment on UAAL	175,453	30.19%	185,068	34.93%
8. Average recommended employer contribution 3 + 7	\$255,847	44.02%	\$260,975	49.26%
9. Projected compensation	\$581,143		\$529,841	

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

¹ Includes administrative expense load.

Section 2: Actuarial Valuation Results

Reconciliation of average recommended employer contribution rate

Reconciliation from June 30, 2023 to June 30, 2024

(\$ in '000s)

Item	Contribution Rate	Estimated Annual Dollar Amount ¹
1. Average recommended employer contribution as of June 30, 2023	48.76%	\$283,356
2. Changes due to:		
a. Investment return less than expected after asset smoothing	0.11%	\$639
b. Actual contributions less than expected ²	0.27%	1,569
c. Individual salary increases greater than expected	1.09%	6,334
d. Decrease in UAAL rate from greater than expected increase in total payroll	(1.82%)	(10,577)
e. COLA increases greater than expected ³	0.05%	291
f. 2009 UAAL amortization layers being fully amortized	(4.25%)	(24,699)
g. Change in member demographics on normal cost	(0.04%)	(232)
h. Active to service and disability retirement experience during 2023/2024	(0.11%)	(626)
i. Other net experience gain ⁴	(0.04%)	(208)
j. Total change	(4.74%)	\$(27,509)
3. Average recommended employer contribution as of June 30, 2024 1 + 2j	44.02%	\$255,847

¹ Amounts are based on June 30, 2024 projected annual compensation shown on the page 37.

² Mainly from scheduled one-year lag in implementing contribution rates from June 30, 2023 valuation.

³ The annual CPI for the West Region used by the Board to set April 1, 2024 COLA came in at 4.5%. For Tiers with a maximum 3.0% COLA, there will be an actuarial loss between the expected benefit increase (2.75% assumed annually starting April 1, 2024 in the June 30, 2023 valuation before implementation of any past COLA bank) and the actual benefit increase (3.0% granted on April 1, 2024 and on every April 1 thereafter until the COLA banks used to track the difference between the 4.5% actual CPI and the actual COLA granted are fully exhausted).

⁴ Other differences in actual versus expected experience including (but not limited to) mortality and termination experience.

Section 2: Actuarial Valuation Results

Reconciliation of average recommended member contribution rate

Reconciliation from June 30, 2023 to June 30, 2024
(\$ in '000s)

Item	Contribution Rate	Estimated Annual Dollar Amount ¹
1. Average recommended member contribution as of June 30, 2023	9.49%	\$55,178
2. Changes due to:		
a. Change in member demographics on normal cost	(0.03%)	\$(190)
b. Change in explicit administrative expense load	0.02%	116
c. Total change	(0.01%)	\$(74)
3. Average recommended member contribution as of June 30, 2024 1 + 2c	9.48%	\$55,104

¹ Amounts are based on June 30, 2024 projected annual compensation shown on the page 37.

Section 2: Actuarial Valuation Results

Recommended employer contribution rate

Recommended Employer Contribution Calculated as of June 30^{1, 2}
 (\$ in '000s)

Component by Tier	2024 Basic	2024 COLA	2024 Total	2024 Estimated Annual Amount ³	2023 Basic	2023 COLA	2023 Total	2023 Estimated Annual Amount ³
General Tier 1								
Normal cost	15.44%	5.15%	20.59%	\$29,431	15.49%	5.19%	20.68%	\$29,560
UAAL	22.54%	6.52%	29.06%	41,538	25.89%	7.60%	33.49%	47,870
Total contribution	37.98%	11.67%	49.65%	\$70,969	41.38%	12.79%	54.17%	\$77,430
General Tier 2								
Normal cost	17.77%	0.23%	18.00%	\$1,320	17.86%	0.24%	18.10%	\$1,327
UAAL	22.54%	6.52%	29.06%	2,131	25.89%	7.60%	33.49%	2,455
Total contribution	40.31%	6.75%	47.06%	\$3,451	43.75%	7.84%	51.59%	\$3,782
General Tier 3								
Normal cost	17.99%	0.32%	18.31%	\$5,307	17.99%	0.32%	18.31%	\$5,307
UAAL	22.54%	6.52%	29.06%	8,422	25.89%	7.60%	33.49%	9,706
Total contribution	40.53%	6.84%	47.37%	\$13,729	43.88%	7.92%	51.80%	\$15,013
General Tier 4								
Normal cost	10.08%	0.00%	10.08%	\$1,678	9.92%	0.00%	9.92%	\$1,651
UAAL	22.54%	6.52%	29.06%	4,838	25.89%	7.60%	33.49%	5,575
Total contribution	32.62%	6.52%	39.14%	\$6,516	35.81%	7.60%	43.41%	\$7,226
General Tier 5								
Normal cost	7.96%	0.00%	7.96%	\$22,926	7.95%	0.00%	7.95%	\$22,897
UAAL	22.54%	6.52%	29.06%	83,696	25.89%	7.60%	33.49%	96,455
Total contribution	30.50%	6.52%	37.02%	\$106,622	33.84%	7.60%	41.44%	\$119,352

¹ The June 30, 2024 Regular Normal Cost and UAAL rates shown for each cost group include an explicit administrative expense of 0.23% and 0.84% of payroll, respectively.

² The June 30, 2023 Regular Normal Cost and UAAL rates shown for each cost group include an explicit administrative expense of 0.21% and 0.88% of payroll, respectively.

³ Amounts are based on June 30, 2024 projected annual compensation shown on the page 37.

Section 2: Actuarial Valuation Results

Component by Tier	2024 Basic	2024 COLA	2024 Total	2024 Estimated Annual Amount ¹	2023 Basic	2023 COLA	2023 Total	2023 Estimated Annual Amount ¹
Safety Tier 1								
Normal cost	23.98%	6.17%	30.15%	\$10,591	23.88%	6.20%	30.08%	\$10,567
UAAL	27.47%	8.35%	35.82%	12,583	32.13%	9.86%	41.99%	14,750
Total contribution	51.45%	14.52%	65.97%	\$23,174	56.01%	16.06%	72.07%	\$25,317
Safety Tier 2								
Normal cost	29.73%	0.22%	29.95%	\$1,320	29.93%	0.23%	30.16%	\$1,329
UAAL	27.47%	8.35%	35.82%	1,578	32.13%	9.86%	41.99%	1,850
Total contribution	57.20%	8.57%	65.77%	\$2,898	62.06%	10.09%	72.15%	\$3,179
Safety Tier 4								
Normal cost ²	17.80%	0.21%	18.01%	\$1,154	17.19%	0.22%	17.41%	\$1,116
UAAL	27.47%	8.35%	35.82%	2,296	32.13%	9.86%	41.99%	2,691
Total contribution	45.27%	8.56%	53.83%	\$3,450	49.32%	10.08%	59.40%	\$3,807
Safety Tier 5								
Normal cost	13.00%	0.00%	13.00%	\$6,667	13.09%	0.00%	13.09%	\$6,714
UAAL	27.47%	8.35%	35.82%	18,371	32.13%	9.86%	41.99%	21,536
Total contribution	40.47%	8.35%	48.82%	\$25,038	45.22%	9.86%	55.08%	\$28,250
All categories combined								
Normal cost	12.17%	1.66%	13.83%	\$80,394	12.17%	1.68%	13.85%	\$80,468
UAAL	23.36%	6.83%	30.19%	175,453	26.93%	7.98%	34.91%	202,888
Total contribution	35.53%	8.49%	44.02%	\$255,847	39.10%	9.66%	48.76%	\$283,356

¹ Amounts are based on June 30, 2024 projected annual compensation shown on the page 37.

² The increase in the Safety Tier 4 employer normal cost rate from last year to this year is primarily due to three actives who transferred from Safety Tier 5 resulting a change in the average entry age from 32.1 to 32.7.

Section 2: Actuarial Valuation Results

Projected Compensation as of June 30, 2024 (*\$ in '000s*)

Tier	Projected Annual Compensation
General Tier 1	\$142,939
General Tier 2	7,332
General Tier 3	28,983
General Tier 4	16,647
General Tier 5	288,011
Safety Tier 1	35,128
Safety Tier 2	4,406
Safety Tier 4	6,409
Safety Tier 5	51,288
Total	\$581,143

Section 2: Actuarial Valuation Results

Breakdown of total normal cost for each type of benefit

Breakdown of the Employer Contribution Rate into Basic and COLA as of June 30

General

Category	2024 Tier 1	2024 Tier 2	2024 Tier 3	2024 Tier 4	2024 Tier 5	2023 Tier 1	2023 Tier 2	2023 Tier 3	2023 Tier 4	2023 Tier 5
Normal Cost										
Regular - basic	12.14%	14.26%	14.23%	9.85%	7.73%	12.20%	14.36%	14.25%	9.71%	7.74%
Regular - COLA	3.07%	3.28%	3.53%	0.00%	0.00%	3.08%	3.29%	3.53%	0.00%	0.00%
Section 6	4.83%	0.00%	0.00%	0.00%	0.00%	4.85%	0.00%	0.00%	0.00%	0.00%
Section 8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Section 9	0.32%	0.23%	0.32%	0.00%	0.00%	0.34%	0.24%	0.32%	0.00%	0.00%
Administrative expense	0.23%	0.23%	0.23%	0.23%	0.23%	0.21%	0.21%	0.21%	0.21%	0.21%
Subtotal	20.59%	18.00%	18.31%	10.08%	7.96%	20.68%	18.10%	18.31%	9.92%	7.95%
UAAL										
Regular - basic	12.47%	12.47%	12.47%	12.47%	12.47%	15.51%	15.51%	15.51%	15.51%	15.51%
Regular - COLA	9.23%	9.23%	9.23%	9.23%	9.23%	9.50%	9.50%	9.50%	9.50%	9.50%
Section 6	5.40%	5.40%	5.40%	5.40%	5.40%	6.46%	6.46%	6.46%	6.46%	6.46%
Section 8 ¹	(0.82%)	(0.82%)	(0.82%)	(0.82%)	(0.82%)	(0.70%)	(0.70%)	(0.70%)	(0.70%)	(0.70%)
Section 9 ²	1.94%	1.94%	1.94%	1.94%	1.94%	1.84%	1.84%	1.84%	1.84%	1.84%
Administrative expense	0.84%	0.84%	0.84%	0.84%	0.84%	0.88%	0.88%	0.88%	0.88%	0.88%
Subtotal	29.06%	29.06%	29.06%	29.06%	29.06%	33.49%	33.49%	33.49%	33.49%	33.49%
Total	49.65%	47.06%	47.37%	39.14%	37.02%	54.17%	51.59%	51.80%	43.41%	41.44%

¹ The primary reason why the Section 8 UAAL contribution rate decrease over time is that, in practice, the Association doesn't debit the negative UAAL contribution offset from the Section 8 Settlement Reserve.

² The primary reason why the Section 9 UAAL contribution rate increase over time is that, in practice, the Association doesn't deposit the positive UAAL contribution to the Section 9 Settlement Reserve.

Section 2: Actuarial Valuation Results

Breakdown of the Employer Contribution Rate into Basic and COLA as of June 30 *Safety*

Category	2024 Tier 1	2024 Tier 2	2024 Tier 4	2024 Tier 5	2023 Tier 1	2023 Tier 2	2023 Tier 4	2023 Tier 5
Normal Cost								
Regular - basic	19.17%	23.40%	17.57%	12.77%	19.05%	23.57%	16.98%	12.88%
Regular - COLA	4.58%	6.10%	0.00%	0.00%	4.62%	6.15%	0.00%	0.00%
Section 6	5.88%	0.00%	0.00%	0.00%	5.89%	0.00%	0.00%	0.00%
Section 8	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Section 9	0.29%	0.22%	0.21%	0.00%	0.31%	0.23%	0.22%	0.00%
Administrative Expense	0.23%	0.23%	0.23%	0.23%	0.21%	0.21%	0.21%	0.21%
Subtotal	30.15%	29.95%	18.01%	13.00%	30.08%	30.16%	17.41%	13.09%
UAAL								
Regular - basic	11.81%	11.81%	11.81%	11.81%	15.99%	15.99%	15.99%	15.99%
Regular - COLA	14.82%	14.82%	14.82%	14.82%	15.26%	15.26%	15.26%	15.26%
Section 6	7.23%	7.23%	7.23%	7.23%	8.72%	8.72%	8.72%	8.72%
Section 8 ¹	(0.82%)	(0.82%)	(0.82%)	(0.82%)	(0.70%)	(0.70%)	(0.70%)	(0.70%)
Section 9 ²	1.94%	1.94%	1.94%	1.94%	1.84%	1.84%	1.84%	1.84%
Administrative Expense	0.84%	0.84%	0.84%	0.84%	0.88%	0.88%	0.88%	0.88%
Subtotal	35.82%	35.82%	35.82%	35.82%	41.99%	41.99%	41.99%	41.99%
Total	65.97%	65.77%	53.83%	48.82%	72.07%	72.15%	59.40%	55.08%

Note: Please refer to *Section 4, Exhibit 2* for definition of Regular and Settlement Sections 6, 8 and 9 benefits.

¹ The primary reason why the Section 8 UAAL contribution rate decrease over time is that, in practice, the Association doesn't debit the negative UAAL contribution offset from the Section 8 Settlement Reserve.

² The primary reason why the Section 9 UAAL contribution rate increase over time is that, in practice, the Association doesn't deposit the positive UAAL contribution to the Section 9 Settlement Reserve.

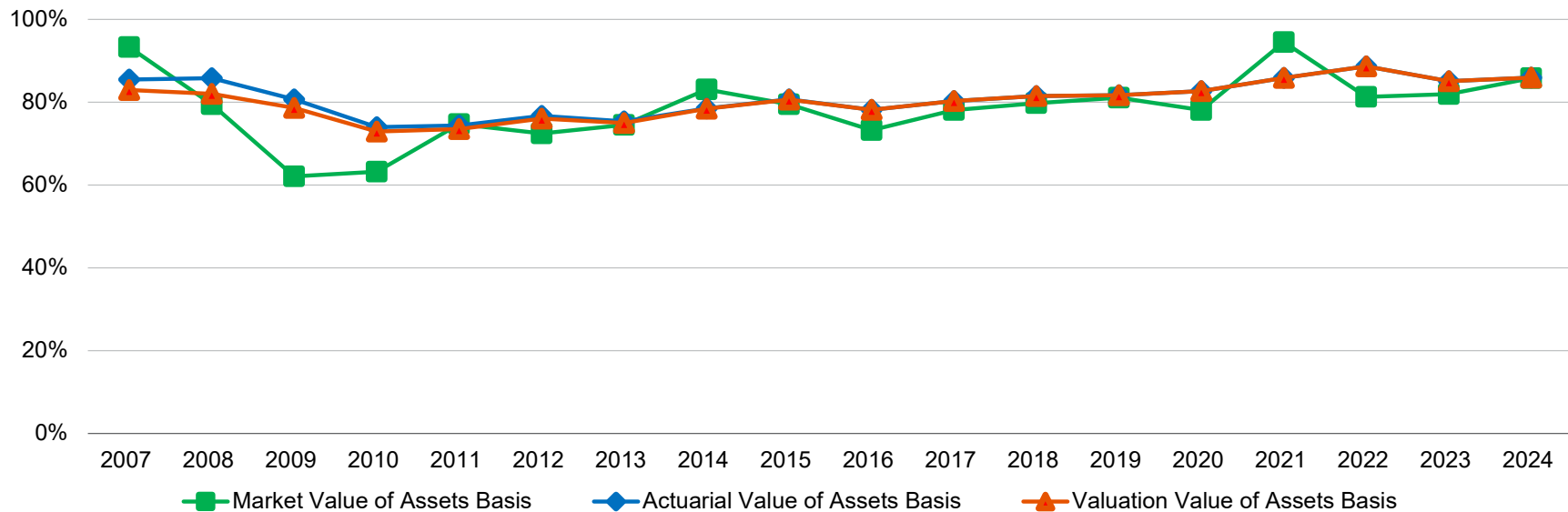
Section 2: Actuarial Valuation Results

G. Funded status

A commonly reported piece of information regarding the Association'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.

Funded Ratio as of June 30



Section 2: Actuarial Valuation Results

Schedule of Funding Progress

As of June 30	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	\$4,092,647,000	\$5,074,333,000	\$981,686,000	80.65%	\$383,775,000	255.80%
2016	4,278,001,000	5,472,149,000	1,194,148,000	78.18%	402,535,000	296.66%
2017	4,529,508,000	5,643,444,000	1,113,936,000	80.26%	413,760,000	269.22%
2018	4,802,958,000	5,893,909,000	1,090,951,000	81.49%	431,678,000	252.72%
2019	4,971,225,000	6,086,654,000	1,115,429,000	81.67%	457,759,000	243.67%
2020	5,226,009,000	6,320,381,000	1,094,372,000	82.69%	485,587,000	225.37%
2021	5,710,379,000	6,649,631,000	939,252,000	85.88%	482,500,000	194.66%
2022	6,134,136,000	6,918,859,000	784,723,000	88.66%	491,462,000	159.67%
2023	6,331,112,000	7,442,829,000	1,111,717,000	85.06%	529,841,000	209.82%
2024	6,660,013,000	7,749,850,000	1,089,837,000	85.94%	581,143,000	187.53%

Section 2: Actuarial Valuation Results

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 June 30, 2024

(\$ in '000s)

Line Description	Regular	Settlement Benefit Section 6	Settlement Benefit Section 8	Settlement Benefit Section 9	Total
Liabilities					
Present value of benefits for retired members and beneficiaries	\$3,873,651	\$943,601	\$55,109	\$57,602	\$4,929,963
Present value of benefits for inactive members	325,071	86,940	0	4,090	416,101
Present value of benefits for active members	3,047,321	484,588	0	21,271	3,553,180
Total liabilities	\$7,246,043	\$1,515,129	\$55,109	\$82,963	\$8,899,244
Current and Future Assets					
Total valuation value of assets	\$5,369,686	\$1,205,769	\$91,488	\$(6,930)	\$6,660,013
Present value of future contributions by members	475,090	27,661	0	0	502,751
Present value of future employer contributions for:					
• Entry age normal cost	600,248	42,604	0	3,791	646,643
• Unfunded actuarial accrued liability	801,019	239,095	(36,379)	86,102	1,089,837
Total of current and future assets	\$7,246,043	\$1,515,129	\$55,109	\$82,963	\$8,899,244

Note: Please refer to *Section 4, Exhibit 2* for definition of Regular and Settlement Sections 6, 8 and 9 benefits.

Section 2: Actuarial Valuation Results

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. A more detailed assessment of the risks tailored to specific interests or concerns of the Board would 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.

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 47, a 1% asset gain or loss (relative to the assumed investment return) translates to about 11.4% of

Section 2: Actuarial Valuation Results

one-year's payroll. Since actuarial gains and losses are amortized over 15 years, there would be a 1.0% 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 -9.93% to a high of 27.33%.

- **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 80.7% to 85.9%. This is primarily due to contributions made to amortize the UAAL (i.e., amortizing each layer of UAAL over 15 years as a level percentage of pay). For a more detailed history see *Section 2, Subsection G, Funded status* starting on page 40.
- The average geometric investment return on the valuation value of assets over the last 10 years was 6.23%. This includes a high of 9.29% and a low of 3.93%. The average over the last five years is 6.66%. For more details see the *Section 2, Subsection B, Historical investment returns* on page 25.

Section 2: Actuarial Valuation Results

- The primary source of new UAAL was the strengthening of assumptions through multiple assumption changes. In particular, the assumption changes in 2013 changed the discount rate from 7.75% to 7.25% and updated mortality tables, adding \$259¹ million in unfunded liability. The assumption changes in 2016 changed the discount rate from 7.25% to 7.00% and again updated mortality tables adding \$241² million in unfunded liability. The assumption changes in 2021 changed the discount rate from 7.00% to 6.50% (as well as various other changes) adding \$203³ million in unfunded liability. The assumption changes in 2023 increased the COLA assumption from 2.50% to 2.75% for the Legacy members enrolled in those tiers with a maximum 3.0% COLA, adding \$125⁴ million in unfunded liability. For more details on unfunded liability changes see *Section 3, Exhibit H, Table of Amortization Bases* starting on page 74.
- 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 84.

Maturity measures

In the last 10 years the ratio of members in pay status to active participants has increased from 0.98 to 1.07. 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 \$66 million more than contributions received (gross of administrative expenses). 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 85.9% 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 47.

Low-Default-Risk Obligation Measure (LDRM)

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

¹ Includes additional \$7 million in Section 8 UAAL and Section 9 UAAL due to changes in actuarial assumptions as of June 30, 2013.

² Includes additional \$7 million in Section 8 UAAL and Section 9 UAAL due to changes in actuarial assumptions as of June 30, 2016.

³ Includes additional \$5 million in Section 8 UAAL and Section 9 UAAL due to changes in actuarial assumptions as of June 30, 2021.

⁴ Includes additional \$0.2 million in Section 8 UAAL and Section 9 UAAL due to changes in actuarial assumptions as of June 30, 2023.

Section 2: Actuarial Valuation Results

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 3.93% for use effective June 30, 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 6.50%, is used for these calculations.

As of June 30, 2024, the LDROM for the Plan is \$11.0 billion.¹ The difference between the Plan’s actuarial accrued liability of \$7.7 billion and the LDROM can be thought of as the increase in the actuarial accrued liability 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 June 30, 2023, the LDROM was \$11.1 billion based on a discount rate of 3.65%, while the Plan’s actuarial accrued liability was \$7.4 billion.

Section 2: Actuarial Valuation Results

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 11.4. This means that a 1% asset gain or loss (relative to the assumed investment return) translates to about 11.4% of one-year's payroll. Since actuarial gains and losses are amortized over 15 years, there would be a 1.0% 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 13.3 but is 12.5 for General compared to 17.3 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 17% higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long term.

Section 2: Actuarial Valuation Results

Volatility Ratios

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

As of June 30	AVR General	AVR Safety	AVR Total	LVR General	LVR Safety	LVR Total
2015	10.0	13.1	10.5	12.5	16.8	13.2
2016	9.5	12.0	10.0	12.9	16.8	13.6
2017	10.2	13.0	10.7	13.0	17.0	13.6
2018	10.4	13.5	10.9	12.9	17.2	13.7
2019	10.3	13.2	10.8	12.7	16.4	13.3
2020	9.6	12.7	10.2	12.3	16.3	13.0
2021	12.3	16.8	13.0	13.0	17.8	13.8
2022	10.8	15.0	11.4	13.3	18.0	14.1
2023	10.9	14.7	11.5	13.3	17.8	14.0
2024	10.7	14.9	11.4	12.5	17.3	13.3

Section 3: Supplemental Information

Exhibit A: Table of plan demographics

Total Plan – Demographics as of June 30

Demographic Data by Status	2024	2023	Change
Active members			
• Number	7,910	7,650	3.4%
• Average age	41.7	41.8	(0.1)
• Average years of service	9.8	10.0	(0.2)
• Total projected compensation	\$581,141,061	\$529,840,359	9.7%
• Average projected compensation	\$73,469	\$69,260	6.1%
• Account balances	\$424,447,024	\$395,993,154	7.2%
• Total active vested members	4,723	4,618	2.3%
Inactive members			
• Number	5,404	5,187	4.2%
• Average age	43.9	43.7	0.2
Retired members			
• Number	6,807	6,756	0.8%
• Average age	71.3	70.9	0.4
• Average monthly benefit ¹	\$3,836	\$3,738	2.6%
Disabled members			
• Number	420	413	1.7%
• Average age	64.4	64.3	0.1
• Average monthly benefit ¹	\$3,322	\$3,203	3.7%
Beneficiaries			
• Number	1,263	1,205	4.8%
• Average age	72.1	71.7	0.4
• Average monthly benefit ¹	\$2,276	\$2,189	4.0%

¹ Benefits include regular and settlement benefits but exclude non-vested supplemental benefits.

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General Tier 1 – Demographics as of June 30

Demographic Data by Status	2024	2023	Change
Active members			
• Number	1,688	1,828	(7.7%)
• Average age	52.3	51.6	0.7
• Average years of service	22.7	21.9	0.8
• Total projected compensation	\$142,939,412	\$144,289,251	(0.9%)
• Average projected compensation	\$84,680	\$78,933	7.3%
• Account balances	\$208,269,173	\$205,597,722	1.3%
• Total active vested members	1,678	1,823	(8.0%)
Inactive members			
• Number	1,696	1,747	(2.9%)
• Average age	53.2	52.5	0.7
Retired members			
• Number	5,804	5,789	0.3%
• Average age	72.0	71.6	0.4
• Average monthly benefit ¹	\$3,686	\$3,574	3.1%
Disabled members			
• Number	196	201	(2.5%)
• Average age	67.9	67.3	0.6
• Average monthly benefit ¹	\$2,486	\$2,398	3.7%
Beneficiaries			
• Number	994	954	4.2%
• Average age	73.0	72.8	0.2
• Average monthly benefit ¹	\$2,183	\$2,102	3.9%

¹ Benefits include regular and settlement benefits but exclude non-vested supplemental benefits.

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General Tier 2 – Demographics as of June 30

Demographic Data by Status	2024	2023	Change
Active members			
• Number	73	78	(6.4%)
• Average age	48.6	48.1	0.5
• Average years of service	15.1	14.2	0.9
• Total projected compensation	\$7,331,743	\$7,077,169	3.6%
• Average projected compensation	\$100,435	\$90,733	10.7%
• Account balances	\$5,595,463	\$5,260,270	6.4%
• Total active vested members	71	77	(7.8%)
Inactive members			
• Number	114	114	0.0%
• Average age	48.5	47.6	0.9
Retired members			
• Number	46	46	0.0%
• Average age	66.7	66.1	0.6
• Average monthly benefit ¹	\$1,914	\$1,871	2.3%
Disabled members			
• Number	1	0	N/A
• Average age	56.7	N/A	N/A
• Average monthly benefit ¹	\$3,032	N/A	N/A
Beneficiaries			
• Number	2	2	0.0%
• Average age	67.2	66.2	1.0
• Average monthly benefit ¹	\$833	\$809	3.0%

¹ Benefits include regular and settlement benefits but exclude non-vested supplemental benefits.

Section 3: Supplemental Information

General Tier 3 – Demographics as of June 30

Demographic Data by Status	2024	2023	Change
Active members			
• Number	403	434	(7.1%)
• Average age	47.6	46.6	1.0
• Average years of service	15.4	14.4	1.0
• Total projected compensation	\$28,982,701	\$29,154,598	(0.6%)
• Average projected compensation	\$71,917	\$67,176	7.1%
• Account balances	\$25,431,096	\$24,243,041	4.9%
• Total active vested members	402	432	(6.9%)
Inactive members			
• Number	307	302	1.7%
• Average age	45.3	44.6	0.7
Retired members			
• Number	112	102	9.8%
• Average age	65.5	65.2	0.3
• Average monthly benefit ¹	\$1,623	\$1,598	1.6%
Disabled members			
• Number	11	10	10.0%
• Average age	57.7	60.0	(2.3)
• Average monthly benefit ¹	\$1,636	\$1,543	6.0%
Beneficiaries			
• Number	6	5	20.0%
• Average age	64.4	60.0	4.4
• Average monthly benefit ¹	\$907	\$956	(5.1%)

¹ Benefits include regular and settlement benefits but exclude non-vested supplemental benefits.

Section 3: Supplemental Information

General Tier 4 – Demographics as of June 30

Demographic Data by Status	2024	2023	Change
Active members			
• Number	208	209	(0.5%)
• Average age	48.0	47.1	0.9
• Average years of service	9.0	8.6	0.4
• Total projected compensation	\$16,646,649	\$15,547,383	7.1%
• Average projected compensation	\$80,032	\$74,389	7.6%
• Account balances	\$8,181,047	\$7,385,144	10.8%
• Total active vested members	164	169	(3.0%)
Inactive members			
• Number	192	191	0.5%
• Average age	47.1	46.4	0.7
Retired members			
• Number	23	17	35.3%
• Average age	63.5	63.4	0.1
• Average monthly benefit ¹	\$951	\$896	6.1%
Disabled members			
• Number	1	1	0.0%
• Average age	65.2	64.2	1.0
• Average monthly benefit ¹	\$1,953	\$1,953	0.0%
Beneficiaries			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit ¹	N/A	N/A	N/A

¹ Benefits include regular and settlement benefits but exclude non-vested supplemental benefits.

Section 3: Supplemental Information

General Tier 5 – Demographics as of June 30

Demographic Data by Status	2024	2023	Change
Active members			
• Number	4,570	4,142	10.3%
• Average age	37.5	37.2	0.3
• Average years of service	4.3	4.1	0.2
• Total projected compensation	\$288,010,666	\$244,089,532	18.0%
• Average projected compensation	\$63,022	\$58,930	6.9%
• Account balances	\$78,332,141	\$62,035,239	26.3%
• Total active vested members	1,747	1,484	17.7%
Inactive members			
• Number	2,651	2,403	10.3%
• Average age	37.7	37.2	0.5
Retired members			
• Number	57	38	50.0%
• Average age	66.5	65.7	0.8
• Average monthly benefit ¹	\$768	\$686	12.0%
Disabled members			
• Number	4	1	300.0%
• Average age	50.0	34.1	15.9
• Average monthly benefit ¹	\$2,366	\$2,304	2.7%
Beneficiaries			
• Number	5	3	66.7%
• Average age	47.8	44.2	3.6
• Average monthly benefit ¹	\$780	\$586	33.1%

¹ Benefits include regular and settlement benefits but exclude non-vested supplemental benefits.

Section 3: Supplemental Information

Safety Tier 1 – Demographics as of June 30

Demographic Data by Status	2024	2023	Change
Active members			
• Number	282	303	(6.9%)
• Average age	49.5	48.8	0.7
• Average years of service	23.1	22.2	0.9
• Total projected compensation	\$35,127,517	\$34,236,069	2.6%
• Average projected compensation	\$124,566	\$112,990	10.2%
• Account balances	\$63,262,175	\$61,586,187	2.7%
• Total active vested members	282	303	(6.9%)
Inactive members			
• Number	163	167	(2.4%)
• Average age	52.3	51.5	0.8
Retired members			
• Number	750	754	(0.5%)
• Average age	67.6	67.3	0.3
• Average monthly benefit ¹	\$5,797	\$5,632	2.9%
Disabled members			
• Number	192	191	0.5%
• Average age	63.2	62.5	0.7
• Average monthly benefit ¹	\$4,306	\$4,149	3.8%
Beneficiaries			
• Number	256	241	6.2%
• Average age	68.9	68.1	0.8
• Average monthly benefit ¹	\$2,711	\$2,592	4.6%

¹ Benefits include regular and settlement benefits but exclude non-vested supplemental benefits.

Section 3: Supplemental Information

Safety Tier 2 – Demographics as of June 30

Demographic Data by Status	2024	2023	Change
Active members			
• Number	37	38	(2.6%)
• Average age	43.3	42.5	0.8
• Average years of service	15.0	13.9	1.1
• Total projected compensation	\$4,405,700	\$4,137,530	6.5%
• Average projected compensation	\$119,073	\$108,882	9.4%
• Account balances	\$5,082,488	\$4,548,775	11.7%
• Total active vested members	37	38	(2.6%)
Inactive members			
• Number	31	31	0.0%
• Average age	41.9	40.9	1.0
Retired members			
• Number	6	6	0.0%
• Average age	64.0	63.0	1.0
• Average monthly benefit ¹	\$3,550	\$3,448	3.0%
Disabled members			
• Number	6	5	20.0%
• Average age	48.1	46.9	1.2
• Average monthly benefit ¹	\$3,943	\$3,921	0.6%
Beneficiaries			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit ¹	N/A	N/A	N/A

¹ Benefits include regular and settlement benefits but exclude non-vested supplemental benefits.

Section 3: Supplemental Information

Safety Tier 4 – Demographics as of June 30

Demographic Data by Status	2024	2023	Change
Active members			
• Number	57	54	5.6%
• Average age	42.2	41.3	0.9
• Average years of service	9.1	8.8	0.3
• Total projected compensation	\$6,408,924	\$5,536,930	15.7%
• Average projected compensation	\$112,437	\$102,536	9.7%
• Account balances	\$4,414,387	\$3,797,333	16.2%
• Total active vested members	46	47	(2.1%)
Inactive members			
• Number	32	34	(5.9%)
• Average age	41.2	40.5	0.7
Retired members			
• Number	2	0	N/A
• Average age	58.5	N/A	N/A
• Average monthly benefit ¹	\$1,851	N/A	N/A
Disabled members			
• Number	4	2	100.0%
• Average age	38.2	37.0	1.2
• Average monthly benefit ¹	\$3,271	\$2,568	27.4%
Beneficiaries			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit ¹	N/A	N/A	N/A

¹ Benefits include regular and settlement benefits but exclude non-vested supplemental benefits.

Section 3: Supplemental Information

Safety Tier 5 – Demographics as of June 30

Demographic Data by Status	2024	2023	Change
Active members			
• Number	592	564	5.0%
• Average age	33.0	32.9	0.1
• Average years of service	5.0	4.7	0.3
• Total projected compensation	\$51,287,750	\$45,771,898	12.1%
• Average projected compensation	\$86,635	\$81,156	6.8%
• Account balances	\$25,879,053	\$21,539,444	20.1%
• Total active vested members	296	245	20.8%
Inactive members			
• Number	218	198	10.1%
• Average age	34.2	33.5	0.7
Retired members			
• Number	7	4	75.0%
• Average age	60.2	58.5	1.7
• Average monthly benefit ¹	\$1,389	\$972	42.9%
Disabled members			
• Number	5	2	150.0%
• Average age	39.9	43.6	(3.7)
• Average monthly benefit ¹	\$2,422	\$2,063	17.4%
Beneficiaries			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit ¹	N/A	N/A	N/A

¹ Benefits include regular and settlement benefits but exclude non-vested supplemental benefits.

Section 3: Supplemental Information

Exhibit B: Distribution of active members

Total Plan

Active Counts and Average Projected Compensation by Age and Years of Service as of June 30, 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	326	326	—	—	—	—	—	—	—	—
	\$52,452	\$52,452	—	—	—	—	—	—	—	—
25–29	1,060	955	105	—	—	—	—	—	—	—
	\$60,023	\$58,329	\$75,427	—	—	—	—	—	—	—
30–34	1,261	713	509	39	—	—	—	—	—	—
	\$66,762	\$59,669	\$75,584	\$81,303	—	—	—	—	—	—
35–39	1,134	456	441	193	43	1	—	—	—	—
	\$73,415	\$62,443	\$78,669	\$86,402	\$77,648	\$71,209	—	—	—	—
40–44	1,089	286	282	196	253	71	1	—	—	—
	\$77,957	\$66,156	\$77,177	\$80,266	\$87,078	\$89,424	\$99,064	—	—	—
45–49	1,038	171	165	107	232	298	65	—	—	—
	\$82,046	\$60,771	\$73,190	\$81,654	\$87,911	\$92,391	\$92,785	—	—	—
50–54	897	123	115	79	140	242	165	32	1	—
	\$84,822	\$62,962	\$69,836	\$77,937	\$82,991	\$90,567	\$106,467	\$92,288	\$96,563	—
55–59	601	84	99	60	81	119	110	41	7	—
	\$81,957	\$60,173	\$74,168	\$71,938	\$84,272	\$81,538	\$99,139	\$106,128	\$108,172	—
60–64	367	62	67	45	49	64	50	18	11	1
	\$75,117	\$64,723	\$67,310	\$84,047	\$75,798	\$78,113	\$78,609	\$81,792	\$99,011	\$58,047
65–69	99	11	32	16	8	21	8	1	1	1
	\$73,179	\$55,793	\$71,689	\$65,824	\$105,231	\$78,982	\$56,884	\$49,978	\$181,968	\$96,275
70 and over	38	1	10	6	6	5	4	1	4	1
	\$72,742	\$133,311	\$69,993	\$63,514	\$93,415	\$64,927	\$76,869	\$49,978	\$54,989	\$87,320
Total	7,910	3,188	1,825	741	812	821	403	93	24	3
	\$73,469	\$59,816	\$75,509	\$80,978	\$85,377	\$88,375	\$97,507	\$95,448	\$97,701	\$80,547

Section 3: Supplemental Information

General Tier 1

Active Counts and Average Projected Compensation by Age and Years of Service as of June 30, 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	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
35-39	34	—	2	10	21	1	—	—	—	—
	\$76,009	—	\$57,343	\$73,953	\$78,994	\$71,209	—	—	—	—
40-44	201	4	2	18	125	51	1	—	—	—
	\$82,631	\$61,740	\$65,154	\$95,992	\$83,399	\$78,034	\$99,064	—	—	—
45-49	444	3	2	15	145	229	50	—	—	—
	\$84,679	\$43,646	\$85,762	\$92,171	\$86,017	\$84,210	\$83,113	—	—	—
50-54	463	1	1	15	90	200	129	26	1	—
	\$86,665	\$121,699	\$42,490	\$97,719	\$79,257	\$82,864	\$97,419	\$81,784	\$96,563	—
55-59	315	2	1	7	59	104	102	34	6	—
	\$88,913	\$46,238	\$53,086	\$67,312	\$90,203	\$78,418	\$97,448	\$99,188	\$100,242	—
60-64	172	—	2	4	27	62	47	18	11	1
	\$79,292	—	\$44,181	\$89,184	\$75,308	\$78,999	\$77,501	\$81,792	\$99,011	\$58,047
65-69	39	—	1	3	7	17	8	1	1	1
	\$78,457	—	\$40,857	\$45,685	\$106,511	\$79,591	\$56,884	\$49,978	\$181,968	\$96,275
70 and over	20	—	1	—	4	5	4	1	4	1
	\$65,870	—	\$47,158	—	\$70,218	\$64,927	\$76,869	\$49,978	\$54,989	\$87,320
Total	1,688	10	12	72	478	669	341	80	23	3
	\$84,680	\$59,207	\$57,373	\$87,232	\$83,831	\$81,673	\$91,397	\$88,387	\$95,177	\$80,547

Section 3: Supplemental Information

General Tier 2

Active Counts and Average Projected Compensation by Age and Years of Service as of June 30, 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	—	—	—	—	—	—	—	—	—	—
35-39	12	1	1	10	—	—	—	—	—	—
	\$107,595	\$138,128	\$98,675	\$105,434	—	—	—	—	—	—
40-44	18	1	—	8	9	—	—	—	—	—
	\$105,583	\$168,174	—	\$89,677	\$112,766	—	—	—	—	—
45-49	18	—	—	5	13	—	—	—	—	—
	\$103,182	—	—	\$91,671	\$107,610	—	—	—	—	—
50-54	10	—	—	2	6	1	1	—	—	—
	\$88,525	—	—	\$88,718	\$84,370	\$109,969	\$91,625	—	—	—
55-59	5	—	1	1	3	—	—	—	—	—
	\$96,515	—	\$55,309	\$121,268	\$102,000	—	—	—	—	—
60-64	8	—	—	2	6	—	—	—	—	—
	\$79,424	—	—	\$107,665	\$70,011	—	—	—	—	—
65-69	—	—	—	—	—	—	—	—	—	—
70 and over	2	—	—	—	2	—	—	—	—	—
	\$139,809	—	—	—	\$139,809	—	—	—	—	—
Total	73	2	2	28	39	1	1	—	—	—
	\$100,435	\$153,151	\$76,993	\$98,005	\$100,659	\$109,969	\$91,625	—	—	—

Section 3: Supplemental Information

General Tier 3

Active Counts and Average Projected Compensation by Age and Years of Service as of June 30, 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	—	—	—	—	—	—
	\$59,526	\$47,528	\$49,147	\$66,985	—	—	—	—	—	—
35-39	52	—	2	31	19	—	—	—	—	—
	\$73,843	—	\$43,248	\$80,298	\$66,531	—	—	—	—	—
40-44	130	—	2	59	69	—	—	—	—	—
	\$70,767	—	\$37,811	\$72,811	\$69,974	—	—	—	—	—
45-49	82	—	1	27	46	6	2	—	—	—
	\$72,847	—	\$47,442	\$72,383	\$75,117	\$64,076	\$65,931	—	—	—
50-54	52	—	—	22	28	2	—	—	—	—
	\$74,778	—	—	\$69,326	\$78,844	\$77,824	—	—	—	—
55-59	46	—	2	21	19	3	1	—	—	—
	\$68,148	—	\$83,311	\$72,386	\$63,058	\$56,210	\$81,360	—	—	—
60-64	29	—	—	13	14	2	—	—	—	—
	\$74,728	—	—	\$81,160	\$72,194	\$50,655	—	—	—	—
65-69	6	—	—	2	1	3	—	—	—	—
	\$69,558	—	—	\$81,991	\$96,266	\$52,367	—	—	—	—
70 and over	1	—	—	1	—	—	—	—	—	—
	\$64,423	—	—	\$64,423	—	—	—	—	—	—
Total	403	1	8	179	196	16	3	—	—	—
	\$71,917	\$47,528	\$53,166	\$74,129	\$71,736	\$60,446	\$71,074	—	—	—

Section 3: Supplemental Information

General Tier 4

Active Counts and Average Projected Compensation by Age and Years of Service as of June 30, 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	7	1	—	6	—	—	—	—	—	—
	\$83,529	\$84,803	—	\$83,316	—	—	—	—	—	—
35-39	37	3	7	27	—	—	—	—	—	—
	\$94,664	\$90,171	\$107,701	\$91,783	—	—	—	—	—	—
40-44	49	12	10	24	3	—	—	—	—	—
	\$79,606	\$83,439	\$76,526	\$77,546	\$91,015	—	—	—	—	—
45-49	39	11	10	15	3	—	—	—	—	—
	\$84,156	\$74,230	\$76,855	\$93,699	\$97,177	—	—	—	—	—
50-54	28	6	10	12	—	—	—	—	—	—
	\$71,740	\$63,693	\$71,620	\$75,864	—	—	—	—	—	—
55-59	22	7	2	13	—	—	—	—	—	—
	\$61,820	\$60,795	\$57,987	\$62,962	—	—	—	—	—	—
60-64	16	3	8	5	—	—	—	—	—	—
	\$78,913	\$45,021	\$72,138	\$110,089	—	—	—	—	—	—
65-69	8	1	4	3	—	—	—	—	—	—
	\$78,650	\$41,234	\$100,887	\$61,473	—	—	—	—	—	—
70 and over	2	—	—	2	—	—	—	—	—	—
	\$58,022	—	—	\$58,022	—	—	—	—	—	—
Total	208	44	51	107	6	—	—	—	—	—
	\$80,032	\$71,753	\$80,403	\$82,471	\$94,096	—	—	—	—	—

Section 3: Supplemental Information

General Tier 5

Active Counts and Average Projected Compensation by Age and Years of Service as of June 30, 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	277	277	—	—	—	—	—	—	—	—
	\$48,344	\$48,344	—	—	—	—	—	—	—	—
25-29	901	832	69	—	—	—	—	—	—	—
	\$56,054	\$55,240	\$65,868	—	—	—	—	—	—	—
30-34	1,046	638	386	22	—	—	—	—	—	—
	\$62,600	\$57,408	\$70,505	\$74,473	—	—	—	—	—	—
35-39	860	424	361	75	—	—	—	—	—	—
	\$68,270	\$60,559	\$75,520	\$76,959	—	—	—	—	—	—
40-44	551	249	237	64	1	—	—	—	—	—
	\$69,404	\$62,735	\$74,858	\$75,019	\$78,123	—	—	—	—	—
45-49	332	150	144	35	—	3	—	—	—	—
	\$65,331	\$58,127	\$71,584	\$70,792	—	\$61,742	—	—	—	—
50-54	233	111	100	22	—	—	—	—	—	—
	\$64,472	\$60,680	\$68,476	\$65,411	—	—	—	—	—	—
55-59	181	74	91	16	—	—	—	—	—	—
	\$68,021	\$59,674	\$73,978	\$72,741	—	—	—	—	—	—
60-64	132	58	56	18	—	—	—	—	—	—
	\$66,503	\$64,822	\$66,559	\$71,745	—	—	—	—	—	—
65-69	45	10	27	8	—	—	—	—	—	—
	\$66,441	\$57,249	\$68,505	\$70,966	—	—	—	—	—	—
70 and over	12	1	9	2	—	—	—	—	—	—
	\$74,107	\$133,311	\$72,530	\$51,599	—	—	—	—	—	—
Total	4,570	2,824	1,480	262	1	3	—	—	—	—
	\$63,022	\$57,228	\$72,217	\$73,491	\$78,123	\$61,742	—	—	—	—

Section 3: Supplemental Information

Safety Tier 1

Active Counts and Average Projected Compensation by Age and Years of Service as of June 30, 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	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
35-39	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
40-44	56	—	—	2	34	20	—	—	—	—
	\$113,833	—	—	\$100,600	\$111,885	\$118,468	—	—	—	—
45-49	97	—	—	1	23	60	13	—	—	—
	\$124,587	—	—	\$107,490	\$111,097	\$127,978	\$134,118	—	—	—
50-54	97	—	1	1	15	39	35	6	—	—
	\$130,862	—	\$75,816	\$121,100	\$112,178	\$130,225	\$140,240	\$137,804	—	—
55-59	27	—	—	—	—	12	7	7	1	—
	\$125,844	—	—	—	—	\$114,910	\$126,324	\$139,838	\$155,749	—
60-64	4	—	—	—	1	—	3	—	—	—
	\$107,020	—	—	—	\$140,177	—	\$95,968	—	—	—
65-69	1	—	—	—	—	1	—	—	—	—
	\$148,472	—	—	—	—	\$148,472	—	—	—	—
70 and over	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
Total	282	—	1	4	73	132	58	13	1	—
	\$124,566	—	\$75,816	\$107,448	\$112,085	\$126,168	\$134,898	\$138,899	\$155,749	—

Section 3: Supplemental Information

Safety Tier 2

Active Counts and Average Projected Compensation by Age and Years of Service as of June 30, 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	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
35-39	12	—	—	9	3	—	—	—	—	—
	\$118,396	—	—	\$111,651	\$138,631	—	—	—	—	—
40-44	15	—	—	3	12	—	—	—	—	—
	\$127,053	—	—	\$99,445	\$133,955	—	—	—	—	—
45-49	7	—	—	5	2	—	—	—	—	—
	\$113,615	—	—	\$114,708	\$110,882	—	—	—	—	—
50-54	1	—	—	—	1	—	—	—	—	—
	\$89,197	—	—	—	\$89,197	—	—	—	—	—
55-59	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
60-64	2	—	—	1	1	—	—	—	—	—
	\$97,328	—	—	\$84,820	\$109,836	—	—	—	—	—
65-69	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
70 and over	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
Total	37	—	—	18	19	—	—	—	—	—
	\$119,073	—	—	\$108,975	\$128,639	—	—	—	—	—

Section 3: Supplemental Information

Safety Tier 4

Active Counts and Average Projected Compensation by Age and Years of Service as of June 30, 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	—	—	—	—	—	—
	\$97,511	\$72,117	\$100,960	\$104,827	—	—	—	—	—	—
35-39	19	1	4	14	—	—	—	—	—	—
	\$109,877	\$122,302	\$127,303	\$104,011	—	—	—	—	—	—
40-44	20	5	6	9	—	—	—	—	—	—
	\$120,262	\$126,126	\$131,199	\$109,714	—	—	—	—	—	—
45-49	4	1	1	2	—	—	—	—	—	—
	\$102,984	\$122,093	\$107,238	\$91,302	—	—	—	—	—	—
50-54	6	3	1	2	—	—	—	—	—	—
	\$110,722	\$111,796	\$128,549	\$100,199	—	—	—	—	—	—
55-59	2	—	—	2	—	—	—	—	—	—
	\$110,664	—	—	\$110,664	—	—	—	—	—	—
60-64	1	—	—	1	—	—	—	—	—	—
	\$130,856	—	—	\$130,856	—	—	—	—	—	—
65-69	—	—	—	—	—	—	—	—	—	—
70 and over	—	—	—	—	—	—	—	—	—	—
Total	57	11	13	33	—	—	—	—	—	—
	\$112,437	\$116,594	\$125,627	\$105,856	—	—	—	—	—	—

Section 3: Supplemental Information

Safety Tier 5

Active Counts and Average Projected Compensation by Age and Years of Service as of June 30, 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	49	49	—	—	—	—	—	—	—	—
	\$75,678	\$75,678	—	—	—	—	—	—	—	—
25-29	159	123	36	—	—	—	—	—	—	—
	\$82,513	\$79,224	\$93,749	—	—	—	—	—	—	—
30-34	198	72	121	5	—	—	—	—	—	—
	\$87,563	\$79,348	\$91,796	\$103,415	—	—	—	—	—	—
35-39	108	27	64	17	—	—	—	—	—	—
	\$90,875	\$83,920	\$91,676	\$98,905	—	—	—	—	—	—
40-44	49	15	25	9	—	—	—	—	—	—
	\$88,946	\$83,502	\$90,567	\$93,519	—	—	—	—	—	—
45-49	15	6	7	2	—	—	—	—	—	—
	\$98,108	\$100,539	\$96,221	\$97,418	—	—	—	—	—	—
50-54	7	2	2	3	—	—	—	—	—	—
	\$101,122	\$84,803	\$110,259	\$105,910	—	—	—	—	—	—
55-59	3	1	2	—	—	—	—	—	—	—
	\$113,419	\$120,571	\$109,843	—	—	—	—	—	—	—
60-64	3	1	1	1	—	—	—	—	—	—
	\$110,839	\$118,100	\$117,001	\$97,418	—	—	—	—	—	—
65-69	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
70 and over	1	—	—	1	—	—	—	—	—	—
	\$97,418	—	—	\$97,418	—	—	—	—	—	—
Total	592	296	258	38	—	—	—	—	—	—
	\$86,635	\$80,053	\$92,421	\$98,619	—	—	—	—	—	—

Section 3: Supplemental Information

Exhibit C: Reconciliation of member data

Line Description	Active Members	Inactive Members ¹	Retired Members	Disabled Members	Beneficiaries	Total
Number as of June 30, 2023	7,650	5,187	6,756	413	1,205	21,211
New members	937	104	N/A	N/A	N/A	1,041
Terminations with vested rights	(414)	414	N/A	N/A	N/A	0
Contribution refunds	(137)	(140)	N/A	N/A	N/A	(277)
Retirements	(165)	(69)	234	N/A	N/A	0
New disabilities	(11)	(3)	(3)	17	N/A	0
Return to work	58	(58)	0	0	N/A	0
Died with or without beneficiary	(8)	(10)	(180)	(10)	61 ²	(147)
Data adjustments	0	(21)	0	0	(3)	(24)
Number as of June 30, 2024	7,910	5,404	6,807	420	1,263	21,804

¹ Includes inactive members with member contributions on deposit with less than five years of service.

² This is the net increase of beneficiaries after subtracting the number of beneficiaries who died during the year.

Section 3: Supplemental Information

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

Statement of Income and Expenses for Years Ended June 30

Line Description	2024	2023
Contribution income		
• Employer contributions	\$243,867,899	\$242,221,282
• Member contributions	50,472,985	47,116,556
• Less administrative fees	(7,049,280)	(6,411,999)
– Net contribution income	\$287,291,604	\$282,925,839
Investment income		
• Investment, dividends and other income	\$652,620,914	\$565,680,150
• Less investment fees	(27,924,951)	(28,295,147)
– Net investment income	\$624,695,963	\$537,385,003
Total income available for benefits	\$911,987,567	\$820,310,842
Less benefit payments		
• Refund of contributions	\$(3,823,429)	\$(4,244,559)
• Service retirement and disability benefits	(349,022,029)	(332,643,004)
• Death benefits	(1,900,273)	(2,464,900)
• Health benefit subsidies	(5,413,878)	(5,332,222)
– Net benefit payments	\$(360,159,608)	\$(344,684,685)
Change in market value of assets	\$551,827,959	\$475,626,157
Net assets at market value at the beginning of the year	\$6,099,025,449	\$5,623,399,292
Net assets at market value at the end of the year	\$6,650,853,408	\$6,099,025,449

Note: Results may not add due to rounding.

Section 3: Supplemental Information

Exhibit E: Summary statement of plan assets

Statement of Plan Assets as of June 30

Line Description	2024	2023
Cash equivalents	\$240,297,730	\$190,561,281
Prepaid expenses	\$85,199	\$140,408
Accounts receivable		
• Investment trades	\$62,117,439	\$93,919,771
• Accrued interest and dividends	20,378,766	18,320,319
• Contributions and others	12,022,176	11,502,337
• Securities lending	49,058	78,177
– Total accounts receivable	\$94,567,439	\$123,820,604
Investments		
• Equities	\$2,908,044,879	\$2,526,244,720
• Fixed income	1,499,342,551	1,506,897,136
• Real assets	135,121,839	99,900,303
• Securities lending collateral	138,251,974	151,713,501
• Capital assets	10,718,165	11,632,292
• Private markets and derivatives	1,890,870,270	1,805,305,785
– Total investments at market value	\$6,582,349,678	\$6,101,693,737
Total assets	\$6,917,300,047	\$6,416,216,030
Accounts payable		
• Investment trades	\$(125,448,459)	\$(162,809,878)
• Cash collateral payable for securities lending	(138,251,974)	(151,713,501)
• Securities lending bank and broker fees	(11,271)	(17,969)
• Others	(2,734,935)	(2,649,233)
– Total accounts payable	\$(266,446,639)	\$(317,190,581)
Net assets at market value	\$6,650,853,408	\$6,099,025,449
Net assets at actuarial value	\$6,660,013,352	\$6,331,111,759
Net assets at valuation value	\$6,660,013,352	\$6,331,111,759

Note: Results may not add due to rounding.

Section 3: Supplemental Information

Exhibit F: Summary of reported reserve information

Reserve Information Year Ended June 30

Line Description	2024	2023
Used in development of valuation value of assets		
Regular valuation reserves		
• Members' accumulated contributions	\$445,402,677	\$410,909,405
• Current service reserve	2,132,098,028	1,916,356,370
• Annuity pension reserve	311,774,638	305,045,558
• Current service pension reserve	1,857,460,920	1,822,947,291
• Cost of living reserve	2,094,563,238	2,013,693,027
– Subtotal	\$6,841,299,500	\$6,468,951,651
Settlement reserves (Section 6)		
• Supplemental annuity reserve	\$955,100,952	\$925,627,828
• Members' accumulated contributions	49,019,118	47,988,842
• Current service reserve	529,955,749	467,832,828
• Annuity pension reserve	0	0
– Subtotal	\$1,534,075,819	\$1,441,449,498
• Settlement reserves (Section 8)	\$134,743,511	\$130,060,432
• Retiree health benefit reserve (Section 9)	8,799,060	13,414,527
• Contra tracking account	(1,858,904,539)	(1,722,764,348)
Subtotal valuation value of assets	\$6,660,013,352	\$6,331,111,759
Not used in development of valuation value of assets		
• Supplemental COLA	\$0	\$0
• Retiree health benefit reserve (BOR)	0	0
• Contingency reserve	0	0
• Board contingency reserve/undistributed earnings ("available earnings")	0	0
– Subtotal	\$0	\$0
Subtotal actuarial value of assets	\$6,660,013,352	\$6,331,111,759
• Market stabilization reserve	\$(9,159,944)	\$(232,086,311)
Total market value assets	\$6,650,853,408	\$6,099,025,449

Note: Results may not add due to rounding.

Section 3: Supplemental Information

Exhibit G: Development of the Plan through June 30, 2024

Year Ended June 30	Employer Contributions	Member Contributions	Administrative Expenses	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	\$184,213,235	\$33,109,947	\$0	\$(3,936,294)	\$231,396,472	\$4,032,119,349	\$4,092,647,359	101.50%
2016	191,529,239	35,211,756	4,814,003	(4,319,055)	240,231,354	4,009,495,932	4,278,001,313	106.70%
2017	198,472,119	36,259,132	4,762,253	417,603,730	249,846,894	4,407,221,766	4,529,508,479	102.77%
2018	210,534,894	38,467,001	5,676,721	312,556,013	263,231,547	4,699,871,406	4,802,958,346	102.19%
2019	225,491,692	40,463,120	5,980,558	254,693,657	280,032,239	4,934,507,078	4,971,225,226	100.74%
2020	247,474,194	41,761,381	6,422,137	12,966,491	294,992,402	4,935,294,606	5,226,009,456	105.89%
2021	273,973,459	41,620,768	6,073,739	1,348,533,275	310,426,704	6,282,921,666	5,710,378,648	90.89%
2022	251,733,095	42,037,901	6,460,332	(621,985,430)	324,847,608	5,623,399,292	6,134,136,015	109.08%
2023	242,221,282	47,116,556	6,411,999	537,385,003	344,684,685	6,099,025,449	6,331,111,759	103.81%
2024	243,867,899	50,472,985	7,049,280	624,695,963	360,159,608	6,650,853,408	6,660,013,352	100.14%

Note: Results may not add due to rounding.

¹ Net of investment fees and administrative expenses prior to 2016. Starting in 2016, administrative expenses are included in a separate column.

Section 3: Supplemental Information

Exhibit H: Table of amortization bases

Total Plan
(\$ in '000s)

Base Type	Date Established: June 30	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment
Restart Amortization ¹	2003	N/A ²	30	\$205,128	9	\$26,854
Plan Provision Change	2006	\$333	30	332	12	34
Actuarial Loss	2009	158,438	15	0	0	0 ³
Actuarial Loss	2010	52,950	15	7,191	1	7,441
Assumption Change	2010	269,946	15	36,663	1	37,934
Actuarial Loss	2011	29,527	15	7,579	2	3,986
Actuarial Gain	2012	(62,323)	15	(22,675)	3	(8,083)
Actuarial Gain	2013	(96,549)	15	(44,266)	4	(12,030)
Assumption Change	2013	252,161	15	115,610	4	31,419
Actuarial Gain	2014	(65,995)	15	(35,868)	5	(7,926)
Actuarial Gain	2015	(23,584)	15	(14,588)	6	(2,730)
Actuarial Loss	2016	25,694	15	17,589	7	2,867
Assumption Change	2016	233,706	15	159,978	7	26,081
Actuarial Gain	2017	(9,579)	15	(7,126)	8	(1,033)
Actuarial Loss	2018	56,739	15	45,155	9	5,911
Actuarial Loss	2019	174,597	15	146,833	10	17,576
Assumption Change	2019	(58,467)	15	(49,170)	10	(5,886)
Actuarial Loss	2020	105,807	15	93,230	11	10,306
Actuarial Gain	2021	(239,609)	15	(219,403)	12	(22,583)

¹ The outstanding balance includes the full Section 8 UAAL and Section 9 UAAL.

² The initial amounts are only available for periods based on prior audit and valuation results reviewed or prepared by Segal.

³ The final payment to fully amortize the layer established as of the June 30, 2009 valuation was \$22.5 million as shown in the June 30, 2023 valuation.

Section 3: Supplemental Information

Base Type	Date Established: June 30	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment
Assumption Change	2021	\$198,332	15	\$181,607	12	\$18,693
Actuarial Gain	2022	(27,957)	15	(26,510)	13	(2,558)
Assumption Change ¹	2022	(13,285)	15	(12,597)	13	(1,216)
Actuarial Loss	2023	301,108	15	285,392	14	25,972
Assumption Change	2023	124,687	15	130,276	14	11,856
Actuarial Loss	2024	89,475 ²	15	89,475	15	7,718
Total				\$1,089,837		\$170,603

Note: Results may not add due to rounding.

¹ Includes a refinement to the application of the entry age actuarial cost method.

² This amount together with the \$1.6 million loss as referenced in footnote 1 on the prior page for the change in the Section 8 and 9 UAAL in the June 30, 2024 valuation equals to \$91.1 loss, which is the total UAAL changes as shown on page 30.

Section 3: Supplemental Information

General – Regular Benefits (\$ in '000s)

Base Type	Date Established: June 30	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment
Restart Amortization	2003	N/A ¹	30	\$47,758	9	\$6,252
Plan Provision Change	2006	\$333	30	332	12	34
Actuarial Loss	2009	99,661	15	0	0	0 ²
Actuarial Loss	2010	40,450	15	5,494	1	5,684
Assumption Change	2010	180,478	15	24,512	1	25,361
Actuarial Loss	2011	33,655	15	8,638	2	4,543
Actuarial Gain	2012	(37,654)	15	(13,700)	3	(4,884)
Actuarial Gain	2013	(55,329)	15	(25,367)	4	(6,894)
Assumption Change	2013	152,395	15	69,870	4	18,988
Actuarial Gain	2014	(35,958)	15	(19,543)	5	(4,319)
Actuarial Loss	2015	1,049	15	649	6	121
Actuarial Loss	2016	26,665	15	18,253	7	2,976
Assumption Change	2016	146,934	15	100,581	7	16,397
Actuarial Gain	2017	(1,696)	15	(1,261)	8	(183)
Actuarial Loss	2018	40,262	15	32,042	9	4,195
Actuarial Loss	2019	125,047	15	105,163	10	12,588
Assumption Change	2019	(55,256)	15	(46,469)	10	(5,562)
Actuarial Loss	2020	22,015	15	19,398	11	2,144
Actuarial Gain	2021	(149,708)	15	(137,084)	12	(14,110)
Assumption Change	2021	124,158	15	113,688	12	11,702
Actuarial Gain	2022	(3,867)	15	(3,667)	13	(354)

¹ The initial amounts are only available for periods based on prior audit and valuation results reviewed or prepared by Segal.

² The final payment to fully amortize the layer established as of the June 30, 2009 valuation was \$14.2 million as shown in the June 30, 2023 valuation.

Section 3: Supplemental Information

Base Type	Date Established: June 30	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment
Assumption Change ¹	2022	\$(85)	15	\$(81)	13	\$(8)
Actuarial Loss	2023	197,132	15	186,354	14	16,959
Assumption Change	2023	74,038	15	78,367	14	7,132
Actuarial Loss	2024	72,648	15	72,648	15	6,266
Subtotal				\$636,574		\$105,031

Note: Results may not add due to rounding.

¹ Includes a refinement to the application of the entry age actuarial cost method.

Section 3: Supplemental Information

General – Settlement Benefits

(\$ in '000s)

Base Type	Date Established: June 30	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment
Restart Amortization ¹	2003	N/A ²	30	\$120,244	9	\$15,742
Actuarial Loss	2009	17,637	15	0	0	0 ³
Actuarial Loss	2010	4,210	15	572	1	592
Assumption Change	2010	38,322	15	5,205	1	5,385
Actuarial Loss	2011	209	15	54	2	28
Actuarial Gain	2012	(18,843)	15	(6,856)	3	(2,444)
Actuarial Gain	2013	(20,059)	15	(9,197)	4	(2,499)
Assumption Change	2013	41,809	15	19,169	4	5,209
Actuarial Gain	2014	(16,375)	15	(8,900)	5	(1,967)
Actuarial Gain	2015	(16,850)	15	(10,423)	6	(1,951)
Actuarial Gain	2016	(2,624)	15	(1,796)	7	(293)
Assumption Change	2016	25,697	15	17,590	7	2,868
Actuarial Gain	2017	(8,885)	15	(6,611)	8	(958)
Actuarial Gain	2018	(305)	15	(243)	9	(32)
Actuarial Loss	2019	15,863	15	13,341	10	1,597
Assumption Change	2019	13,222	15	11,119	10	1,331
Actuarial Loss	2020	64,705	15	57,014	11	6,303
Actuarial Gain	2021	(38,062)	15	(34,852)	12	(3,587)
Assumption Change	2021	29,732	15	27,225	12	2,802
Actuarial Gain	2022	(7,640)	15	(7,245)	13	(699)

¹ The outstanding balance includes the full General Section 8 UAAL and General Section 9 UAAL.

² The initial amounts are only available for periods based on prior audit and valuation results reviewed or prepared by Segal.

³ The final payment to fully amortize the layer established as of the June 30, 2009 valuation was \$2.5 million as shown in the June 30, 2023 valuation.

Section 3: Supplemental Information

Base Type	Date Established: June 30	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment
Assumption Change ¹	2022	\$3,886	15	\$3,685	13	\$356
Actuarial Loss	2023	29,032	15	27,658	14	2,517
Assumption Change	2023	19,959	15	20,168	14	1,835
Actuarial Gain	2024	(6,635)	15	(6,635)	15	(572)
Subtotal				\$230,285		\$31,562

Note: Results may not add due to rounding.

¹ Includes a refinement to the application of the entry age actuarial cost method.

Section 3: Supplemental Information

Safety – Regular Benefits (\$ in '000s)

Base Type	Date Established: June 30	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment
Restart Amortization	2003	N/A ¹	30	\$16,339	9	\$2,139
Actuarial Loss	2009	33,290	15	0	0	0 ²
Actuarial Loss	2010	7,016	15	953	1	986
Assumption Change	2010	44,211	15	6,005	1	6,213
Actuarial Gain	2011	(3,902)	15	(1,002)	2	(527)
Actuarial Gain	2012	(4,728)	15	(1,720)	3	(613)
Actuarial Gain	2013	(17,551)	15	(8,047)	4	(2,187)
Assumption Change	2013	47,490	15	21,773	4	5,917
Actuarial Gain	2014	(11,046)	15	(6,003)	5	(1,327)
Actuarial Gain	2015	(375)	15	(232)	6	(43)
Actuarial Gain	2016	(3,838)	15	(2,627)	7	(428)
Assumption Change	2016	51,927	15	35,546	7	5,795
Actuarial Loss	2017	1,282	15	954	8	138
Actuarial Loss	2018	15,872	15	12,631	9	1,654
Actuarial Loss	2019	29,593	15	24,887	10	2,979
Assumption Change	2019	(23,103)	15	(19,429)	10	(2,326)
Actuarial Loss	2020	9,250	15	8,151	11	901
Actuarial Gain	2021	(44,655)	15	(40,890)	12	(4,209)
Assumption Change	2021	37,092	15	33,964	12	3,496
Actuarial Gain	2022	(12,672)	15	(12,016)	13	(1,160)
Assumption Change ³	2022	(13,608)	15	(12,903)	13	(1,245)

¹ The initial amounts are only available for periods based on prior audit and valuation results reviewed or prepared by Segal.

² The final payment to fully amortize the layer established as of the June 30, 2009 valuation was \$4.7 million as shown in the June 30, 2023 valuation.

³ Includes a refinement to the application of the entry age actuarial cost method.

Section 3: Supplemental Information

Base Type	Date Established: June 30	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment
Actuarial Loss	2023	\$63,238	15	\$60,075	14	\$5,467
Assumption Change	2023	24,994	15	26,059	14	2,371
Actuarial Loss	2024	21,978	15	21,978	15	1,896
Subtotal				\$164,445		\$25,887

Note: Results may not add due to rounding.

Section 3: Supplemental Information

Safety – Settlement Benefits (\$ in '000s)

Base Type	Date Established: June 30	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment
Restart Amortization ¹	2003	N/A ²	30	\$20,786	9	\$2,721
Actuarial Loss	2009	7,849	15	0	0	0 ³
Actuarial Loss	2010	1,273	15	173	1	179
Assumption Change	2010	6,935	15	942	1	975
Actuarial Gain	2011	(434)	15	(111)	2	(59)
Actuarial Gain	2012	(1,098)	15	(400)	3	(142)
Actuarial Gain	2013	(3,609)	15	(1,655)	4	(450)
Assumption Change	2013	10,467	15	4,799	4	1,304
Actuarial Gain	2014	(2,617)	15	(1,422)	5	(314)
Actuarial Gain	2015	(7,408)	15	(4,582)	6	(858)
Actuarial Loss	2016	5,491	15	3,759	7	613
Assumption Change	2016	9,148	15	6,262	7	1,021
Actuarial Gain	2017	(278)	15	(207)	8	(30)
Actuarial Loss	2018	910	15	724	9	95
Actuarial Loss	2019	4,094	15	3,443	10	412
Assumption Change	2019	6,670	15	5,609	10	671
Actuarial Loss	2020	9,837	15	8,668	11	958
Actuarial Gain	2021	(7,183)	15	(6,578)	12	(677)
Assumption Change	2021	7,350	15	6,730	12	693
Actuarial Gain	2022	(3,777)	15	(3,582)	13	(346)

¹ The outstanding balance includes the full Safety Section 8 UAAL and Safety Section 9 UAAL.

² The initial amounts are only available for periods based on prior audit and valuation results reviewed or prepared by Segal.

³ The final payment to fully amortize the layer established as of the June 30, 2009 valuation was \$1.1 million as shown in the June 30, 2023 valuation.

Section 3: Supplemental Information

Base Type	Date Established: June 30	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment
Assumption Change ¹	2022	\$(3,478)	15	\$(3,298)	13	\$(318)
Actuarial Loss	2023	11,706	15	11,305	14	1,029
Assumption Change	2023	5,696	15	5,683	14	517
Actuarial Loss	2024	1,485	15	1,485	15	128
Subtotal				\$58,533		\$8,122

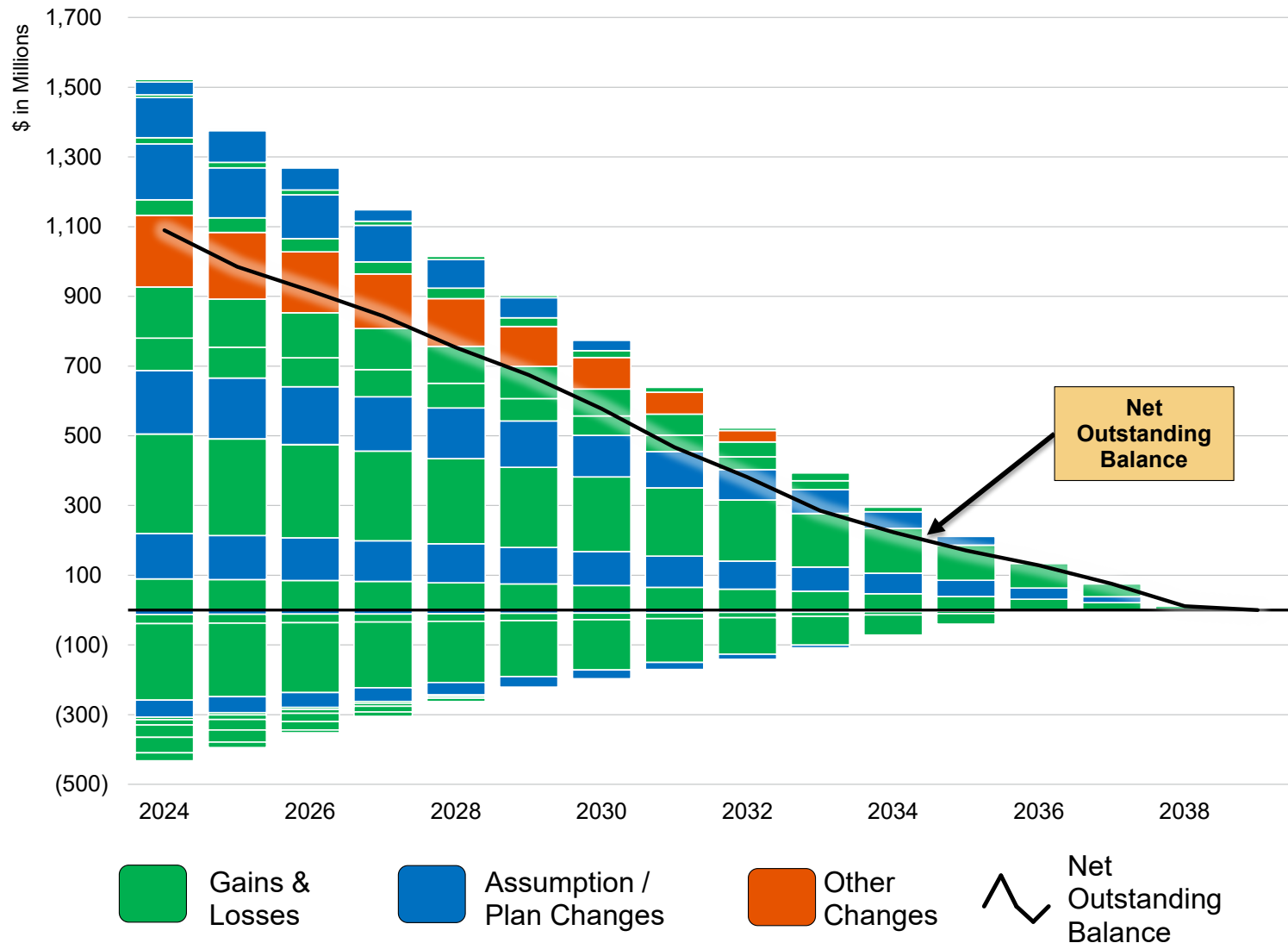
Note: Results may not add due to rounding.

¹ Includes a refinement to the application of the entry age actuarial cost method.

Section 3: Supplemental Information

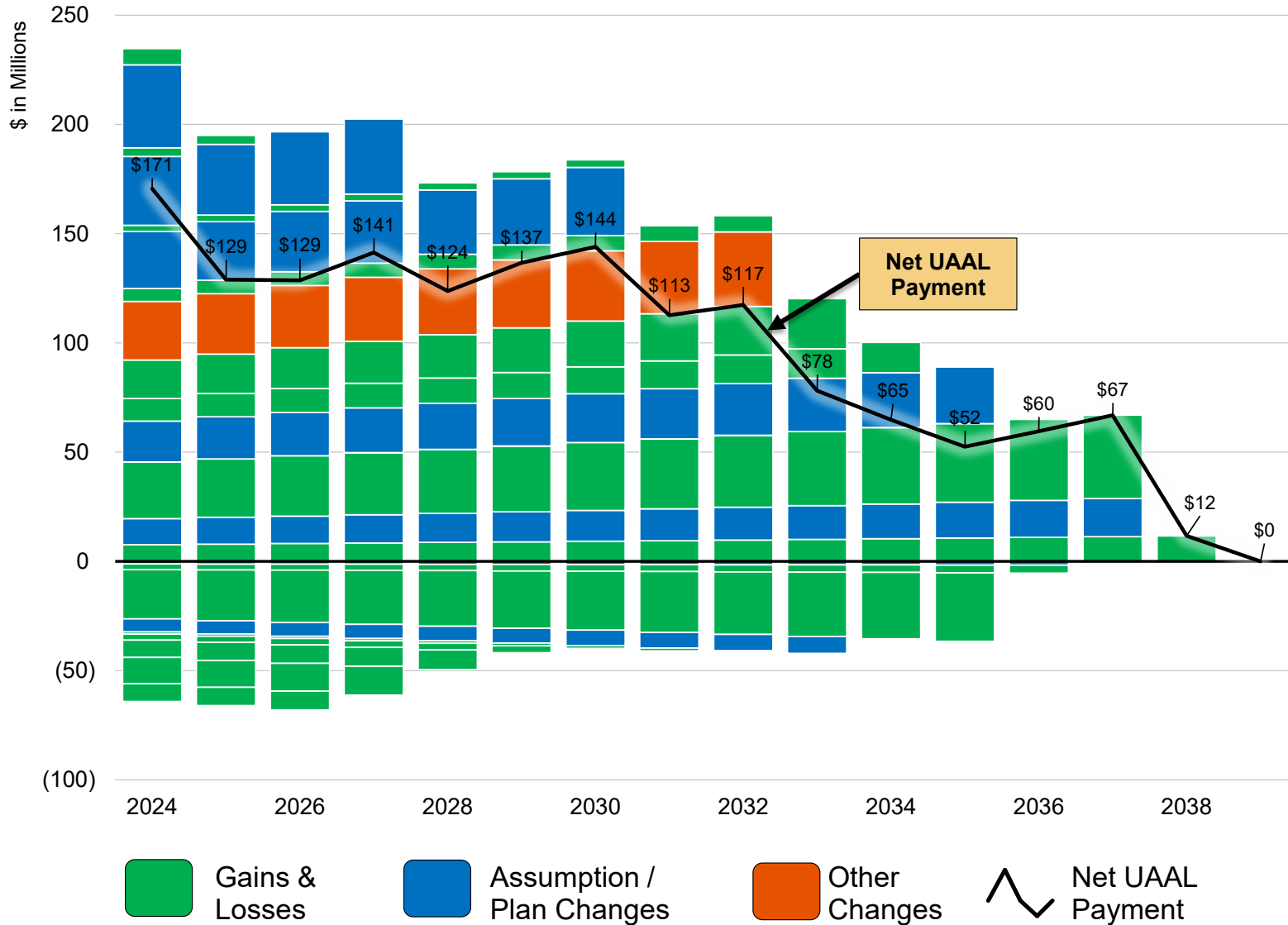
Exhibit I: Projection of UAAL balances and payments

Outstanding Balance of \$1,090 Million in Net UAAL as of June 30, 2024
 (\$ in Millions)



Section 3: Supplemental Information

Annual Payments Required to Amortize \$1,090 Million in Net UAAL as of June 30, 2024
 (\$ in Millions)



Note: See discussion on page 8 related to fluctuation in UAAL contributions in the next five to ten years.

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 Review of Economic Actuarial Assumptions report dated July 11, 2023 and the July 1, 2018 through June 31, 2021 Analysis of Demographic Actuarial Experience dated April 12, 2022. Unless otherwise noted, all actuarial assumptions and methods shown below apply to members for all tiers. These assumptions were adopted by the Board.

Net investment return

6.50%; net of investment expenses.

Based on the Review of Economic Actuarial Assumptions report reference above, expected investment expenses (excluding investment management fees) represent about 0.05% of the actuarial value of assets.

Administrative expenses

1.30% of payroll allocated to both the employer and member based on the components of the total average contribution rate (before expenses) for the employer and member. This results in an administrative expense load as shown below:

Administrative Expenses

Category	Average Contribution Rate Before Administrative Expense	Weighting	Total Loading
Employer	42.95%	82.28%	1.07%
Member	9.25%	17.72%	0.23%
Total	52.20%	100.00%	1.30%

Section 4: Actuarial Valuation Basis

Under this approach, the employer normal cost rate is then increased by the same percent of payroll as the member rate with the remaining employer loading allocated to the employer UAAL rate. This is done to maintain a 50/50 sharing of normal cost for those in Tier 5. The table below shows this allocation.

Allocation of Administrative Expense Load as a % of Payroll

Category	Rate
Addition to Employer Basic Normal Cost Rate	0.23%
Addition to Employer Basic UAAL Rate	0.84%
Addition to Member Basic Rate	0.23%
Total Addition to Contribution Rates	1.30%

The administrative expense load is added to the Basic Regular rates for employers and members.

Inflation rate

Increase of 2.50% per year.

Member contribution crediting rate

2.75%, compounded semi-annually. (The difference between the 6.50% net investment return assumption and 2.75% is credited to the other valuation reserves.)

Cost-of-Living Adjustments (COLA)

Retiree COLA increases of 2.75% per year for General Tiers 1, 2 and 3, and Safety Tiers 1 and 2. General and Safety Tiers 4 and 5 receive no COLA increases.

For members that have COLA banks, we assume they receive 3.00% COLA increases until their COLA banks are exhausted and 2.75% thereafter.

Payroll growth

Inflation of 2.50% per year plus “across the board” real salary increases of 0.50% per year.

Section 4: Actuarial Valuation Basis

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	Safety
Less than 1	9.00	8.50
1–2	8.00	8.00
2–3	7.00	6.75
3–4	5.25	5.00
4–5	4.75	4.50
5–6	3.75	3.75
6–7	3.25	3.50
7–8	2.25	2.75
8–9	1.50	2.00
9–10	1.25	1.60
10 and over	1.10	1.50

Section 4: Actuarial Valuation Basis

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 increased by 5% for males and increased by 10% 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) with rates increased by 5% for males, 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 increased by 5% for males and decreased by 5% 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 increased 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 increased by 5% for males and increased by 10% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

Section 4: Actuarial Valuation Basis

- **Beneficiaries in pay status**

- Pub-2010 Contingent Survivor Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 10%, 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), 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), 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	0.04	0.01	0.04	0.02
25	0.02	0.01	0.03	0.02
30	0.03	0.01	0.04	0.02
35	0.04	0.02	0.04	0.03
40	0.06	0.03	0.05	0.04
45	0.09	0.05	0.07	0.06
50	0.13	0.08	0.10	0.08
55	0.19	0.11	0.15	0.11
60	0.28	0.17	0.23	0.14
65	0.41	0.27	0.35	0.20
70	0.61	0.44	0.66	0.39

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

Section 4: Actuarial Valuation Basis

Mortality rates for member contributions

- **General members**
 - Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5% for males and increased by 10% for females, projected 30 years with the two-dimensional mortality improvement scale MP-2021, weighted 35% male and 65% female.
- **Safety members**
 - Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5% for males, projected 30 years with the two-dimensional mortality improvement scale MP-2021, weighted 80% male and 20% female.

Disability incidence

Disability Incidence Rates (%)

Age	General	Safety
20	0.01	0.05
25	0.01	0.11
30	0.02	0.33
35	0.03	0.54
40	0.09	0.69
45	0.19	0.96
50	0.26	1.34
55	0.30	2.10
60	0.37	2.80
65	0.55	3.00
70	0.65	3.00

65% of General disabilities are assumed to be service connected disabilities (duty) and the other 35% are assumed to be non-service connected (ordinary) disabilities.

100% of Safety disabilities are assumed to be service connected (duty) disabilities.

Section 4: Actuarial Valuation Basis

Termination

Termination Rates (%)

Years of Service	General	Safety
Less than 1	18.00	13.00
1–2	11.25	7.50
2–3	9.25	6.50
3–4	8.00	4.50
4–5	7.50	4.00
5–6	6.50	3.25
6–7	5.50	3.00
7–8	5.00	2.75
8–9	4.75	2.50
9–10	4.50	2.50
10–11	4.25	2.25
11–12	4.00	2.25
12–13	3.75	2.00
13–14	3.75	2.00
14–15	3.75	1.75
15–16	3.00	1.50
16–17	2.50	1.40
17–18	2.50	1.30
18–19	2.50	1.20
19–20	2.00	1.10
20 and over	1.75	1.00

Section 4: Actuarial Valuation Basis

Proportion of Total Termination Assumed to Receive Refunds and Deferred Vested Benefits (%)

Years of Service	General	Safety
0–4	40.00	60.00
5–9	30.00	70.00
10–14	20.00	80.00
15–19	15.00	85.00
20 and over	10.00	90.00

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

Section 4: Actuarial Valuation Basis

Retirement

Retirement Rates (%) – General

Age	Tier 1 (Less than 30 Years of Service)	Tier 1 (30 or More Years of Service)	Tier 2	Tier 3	Tier 4	Tier 5
50	5.00	12.00	3.00	3.60	3.00	0.00
51	3.75	12.00	3.00	3.60	3.00	0.00
52	3.50	12.00	3.60	4.20	3.50	4.50
53	3.50	15.00	3.60	4.20	3.50	2.00
54	5.00	15.00	4.20	5.00	4.00	2.50
55	8.00	16.00	8.40	10.00	5.00	3.50
56	9.00	16.00	10.00	12.00	6.00	4.50
57	11.00	30.00	10.00	12.00	7.00	5.50
58	12.00	30.00	10.00	12.00	8.00	6.50
59	16.00	30.00	10.00	14.00	9.00	7.50
60	17.00	30.00	15.00	16.00	10.00	8.50
61	18.00	30.00	15.00	16.00	11.00	9.50
62	25.00	35.00	25.00	30.00	16.00	15.00
63	20.00	35.00	24.00	22.00	16.00	15.00
64	25.00	35.00	24.00	22.00	19.00	18.00
65	40.00	50.00	35.00	35.00	23.00	22.00
66	40.00	50.00	34.00	30.00	20.00	20.00
67	40.00	50.00	34.00	30.00	20.00	20.00
68	35.00	50.00	35.00	35.00	25.00	25.00
69	35.00	50.00	35.00	35.00	30.00	30.00
70	35.00	50.00	35.00	35.00	35.00	35.00
71	50.00	50.00	50.00	50.00	50.00	50.00
72	50.00	50.00	50.00	50.00	50.00	50.00
73	50.00	50.00	50.00	50.00	50.00	50.00
74	50.00	50.00	50.00	50.00	50.00	50.00
75 and over	100.00	100.00	100.00	100.00	100.00	100.00

Section 4: Actuarial Valuation Basis

Retirement Rates (%) – Safety

Age	Tiers 1 & 2 (Less than 30 Years of Service)	Tier 4	Tier 5
45	8.00	1.00	0.00
46	3.00	1.00	0.00
47	3.00	1.00	0.00
48	3.00	1.00	0.00
49	4.00	2.00	0.00
50	8.00	4.00	4.00
51	6.00	4.00	4.00
52	10.00	5.00	5.00
53	12.00	6.00	6.00
54	30.00	11.00	11.00
55	40.00	18.00	18.00
56	25.00	18.00	18.00
57	25.00	20.00	22.00
58	25.00	20.00	20.00
59	25.00	23.00	23.00
60	35.00	40.00	40.00
61	35.00	40.00	40.00
62	40.00	40.00	40.00
63	40.00	40.00	40.00
64	40.00	40.00	40.00
65 and over	100.00	100.00	100.00

Retirement rate for Safety Tier 1 and Safety Tier 2 is 100% after a member accrues a benefit of 100% of final average compensation.

Section 4: Actuarial Valuation Basis

Inactive members

Current and Future Inactive Member Assumptions

Category	% of Future ¹ Inactive Members with less than five years of service	% of Future ¹ Inactive Members with five or more years of service	Annual Salary Increases from Separation Date	Retirement Age for members with less than five years of service	Retirement Age for members with five or more years of service
General with reciprocity	20%	30%	4.10%	60	60
General without reciprocity	80%	70%	N/A	70	56
Safety with reciprocity	25%	45%	4.50%	56	56
Safety without reciprocity	75%	55%	N/A	70	52

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, members are assumed to be male.

Definition of active members

First day of pay period following employment.

Form of payment

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

¹ FCERA provides the reciprocity status for current deferred vested members in the valuation census data.

Section 4: Actuarial Valuation Basis

Spousal assumptions

Current Active and Inactive Member Spousal Assumptions

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

Annual leave conversion

Eligibility for annual leave plans is determined based on hire date along with other factors.

Additional Service Converted from Unused Annual Leave

Leave Type	Amount of Hours
New Annual Leave Plan	45 hours per year of service.
Annual Leave Plan II	20 hours per year of service.
Vacation/Sick Leave Plans	30 hours per year of service for General and 45 hours per year of service for Safety.
Annual Leave IV Plan or Old Annual Leave Plan	Based on actual hours in a member's frozen time off bank.

Actuarial cost method

Entry Age Actuarial Cost Method.

Entry Age is the age at the member's hire date or the entry age provided for member contribution rate purposes, whichever is later. Normal cost and actuarial accrued liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation, as if the current benefit formula for each individual has always been in effect.

Section 4: Actuarial Valuation Basis

Actuarial value of assets

Market value of assets less unrecognized returns in each of the last ten semi-annual accounting periods. Unrecognized returns are equal to the difference between the actual market return and the expected return on the market value, and are recognized semi-annually over a five-year period. The actuarial value of assets is further adjusted, if necessary, to be within 30% of the market value of assets.

Valuation value of assets

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

Amortization policy

The UAAL as of June 30, 2003 valuation is being amortized over a declining period with 9 years remaining as of June 30, 2024.

- Any new UAAL as a result of assumption changes, method changes and actuarial gains or losses identified in the annual valuation as of June 30, 2011 and later will be amortized over a period of 15 years.
- Any new UAAL as a result of plan amendments will be amortized over a period of 15 years.
- Any new UAAL as a result of Golden Handshakes or Early Retirement Incentive Programs (ERIP) will be amortized over a period of up to 5 years.

The UAAL shall be amortized over “closed” amortization periods so that the amortization period for each layer decreases by one year with each actuarial valuation.

The UAAL shall be amortized as a level percentage of payroll so that the amortization amount in each year during the amortization period shall be expected to be a level percentage of covered payroll, taking into consideration the current assumption for general payroll increase.

If an overfunding or “surplus” exists (i.e., the valuation value of assets exceeds the actuarial accrued liability, so that the total of all UAAL amortization layers becomes negative), any prior UAAL amortization layers will be considered fully amortized, and any subsequent UAAL will be amortized over 15 years as the first of a new series of amortization layers.

If the surplus exceeds 20% of the AAL per Section 7522.52 of the Government Code, then the amount of surplus in excess of 20% of the AAL (and any subsequent surpluses in excess of that amount) will be amortized over an “open” amortization period of 30 years, but only if the other conditions of Section 7522.52 have also been met. If those conditions are not met, then the surplus will not be amortized and the full normal cost will be contributed.

Section 4: Actuarial Valuation Basis

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 Plan) 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 rate of 3.00% (i.e., 2.50% inflation plus 0.50% "across the board" salary increase).

The amortization policy is described on the previous page.

Member contributions

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

Non-Tier 5 Members (i.e., Non-CalPEPRA)

Articles 6 and 6.8 of the 1937 Act define the methodology to be used in the calculation of member basic contribution rates for non-Tier 5 General members and Safety members, respectively. The basic contribution rate is determined so that the accumulation of a member's basic contributions made in a given year until a certain age will be sufficient to fund an annuity at that age that is equal to:

- 1/200 of One-Year Average Final Compensation at age 60 for General Tier 1
- 1/240 of One-Year Average Final Compensation at age 60 for General Tier 2

Section 4: Actuarial Valuation Basis

- 1/200 of Three-Year Average Final Compensation at age 55 for General Tier 3
- 1/120 of Three-Year Average Final Compensation at age 60 for General Tier 4
- 1/200 of One-Year Average Final Compensation at age 50 for Safety Tiers 1 and 2
- 1/100 of Three-Year Average Final Compensation at age 50 for Safety Tier 4

In addition, as a result of the Settlement Agreement, General Tier 1 and Safety Tier 1 members are required to make additional basic contributions in order to receive the Settlement Benefit. The total basic Regular plus Settlement rate is:

- 1/160 of One-Year Average Final Compensation at age 55 for General Tier 1
- 1/160 of One-Year Average Final Compensation at age 50 for Safety Tier 1

It is assumed that contributions are made annually at the same rate, starting at entry age. In addition to their basic contributions, members in Tiers 1, 2 and 3 pay one-half of the total normal cost necessary to fund their COLA benefits. There are no COLA benefits provided in General and Safety Tiers 4. Accumulation includes semi-annual crediting of interest at the assumed investment earning rate.

Tier 5 Members (i.e., CalPEPRA)

Pursuant to Section 7522.30(a) of the Government Code, General and Safety Tiers 5 members are required to contribute at least 50% of the normal cost rate. We further understand that different rules may have to be applied for collectively bargained employees, non-represented, managerial or other supervisory employees (reference Section 7522.30(e)). In preparing the normal cost rates in this report, we have assumed that exactly 50% of the normal cost would be paid by the Tier 5 members and we have not taken into account the requirements of Section 7522.30(e).

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 participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.

Section 4: Actuarial Valuation Basis

In particular, 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 \$275,000 for 2024. 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.

Non-CalPEPRA 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.

Non-CalPEPRA contribution rates determined in this valuation have not been reduced for the Section 415 limitations for active and inactive vested members. 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

There have been no changes in actuarial assumptions, methods or models since the prior valuation.

Section 4: Actuarial Valuation Basis

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 Plan should find the plan summary not in accordance with the actual provisions, the Plan should alert the actuary so they can both be sure the proper provisions are valued.

Plan year

July 1 through June 30

Membership eligibility

Membership with FCERA usually begins with the first day of the pay period following the date of appointment to a permanent position of at least 50% full-time.

Membership Tier	Membership Eligibility
General and Safety Tier 1	All General and Safety members hired on or before February 26, 2006 and General and Safety members of certain bargaining units hired after February 26, 2006.
General and Safety Tier 2	General and Safety members of certain bargaining units hired after February 26, 2006 and former Tier 1 members hired on or before February 26, 2006 who have elected to transfer to Tier 2.
General Tier 3	General members of certain bargaining units hired after December 17, 2007 and those eligible Tier 2 members hired on or before December 17, 2007.
General and Safety Tier 4	General and Safety County members hired on or after June 11, 2012 and prior to January 1, 2013.
General and Safety Tier 5	All General and Safety members hired on or after January 1, 2013.

Final compensation and service for benefit determination

Final Compensation and Service	Plan Provision
Final average compensation	
General and Safety Tiers 1 and 2	Highest one-year average final compensation (\$31462.1) (FAS1).
General Tiers 3 and 4 and Safety Tier 4	Highest three-year average final compensation (\$31462) (FAS3).

Section 4: Actuarial Valuation Basis

Final Compensation and Service	Plan Provision
General and Safety Tier 5	Highest consecutive three years of pensionable compensation (§7522.10(c), §7522.32 and §7522.34) (FAS3).
Compensation limit	
General Tiers 1, 2, 3 and 4 and Safety Tiers 1, 2 and 4	For members with membership dates on or after July 1, 1996, Compensation Earnable is limited to Internal Revenue Code Section 401(a)(17). The limit as of July 1, 2024 is \$345,000. The limit is indexed for inflation on an annual basis.
General and Safety Tier 5	Pensionable Compensation is limited to \$151,446 for 2024 (\$181,734, if not enrolled in Social Security). The limit is indexed for inflation on an annual basis.
Service	
All members	Years of service (Yrs).

Service retirement benefits

Provision by Tier	Service Retirement Plan Provision
Eligibility	
General Tiers 1, 2, 3 and 4	Age 50 with 10 years of service, or age 70 regardless of service, or after 30 years regardless of age (§31672).
General Tier 5	Age 52 with 5 years of service (§7522.20(a)) or age 70 regardless of service (§31672.3).
Safety Tiers 1, 2 and 4	Age 50 with 10 years of service, or age 70 regardless of service, or after 20 years regardless of age (§31663.25).
Safety Tier 5	Age 50 with 5 years of service (§7522.25(d)) or age 70 regardless of service (§31672.3).
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	
General Tiers 1, 2, 3 and 4 and Safety Tiers 1, 2 and 4	100% of Final Compensation (§31676.14, §31676.16, §31676.15, §31676.1, §31664 and §31664.2).
General and Safety Tier 5	There is no Final Compensation limit on the maximum retirement benefit.

Section 4: Actuarial Valuation Basis

Service retirement benefit formula (sample ages)

Tier and Retirement Age	Service Retirement Benefit Formula by Tier
General Tier 1 — Regular Plus Settlement Benefit Pursuant to Ventura Settlement Agreement¹	
Age 50	$(1.86\% \times \text{FAS1} - 1/3 \times 1.86\% \times \$350 \times 12) \times \text{Yrs}$
Age 55	$(2.50\% \times \text{FAS1} - 1/3 \times 2.50\% \times \$350 \times 12) \times \text{Yrs}$
Age 60 and over	$(3.27\% \times \text{FAS1} - 1/3 \times 3.27\% \times \$350 \times 12) \times \text{Yrs}$
General Tier 2 (\$31676.16)	
Age 50	$(1.43\% \times \text{FAS1} - 1/3 \times 1.43\% \times \$350 \times 12) \times \text{Yrs}$
Age 55	$(2.00\% \times \text{FAS1} - 1/3 \times 2.00\% \times \$350 \times 12) \times \text{Yrs}$
Age 60	$(2.26\% \times \text{FAS1} - 1/3 \times 2.26\% \times \$350 \times 12) \times \text{Yrs}$
Age 62	$(2.37\% \times \text{FAS1} - 1/3 \times 2.37\% \times \$350 \times 12) \times \text{Yrs}$
Age 63 and over	$(2.42\% \times \text{FAS1} - 1/3 \times 2.42\% \times \$350 \times 12) \times \text{Yrs}$
General Tier 3 (\$31676.15)	
Age 50	$(1.49\% \times \text{FAS3} - 1/3 \times 1.49\% \times \$350 \times 12) \times \text{Yrs}$
Age 55	$(2.00\% \times \text{FAS3} - 1/3 \times 2.00\% \times \$350 \times 12) \times \text{Yrs}$
Age 60	$(2.62\% \times \text{FAS3} - 1/3 \times 2.62\% \times \$350 \times 12) \times \text{Yrs}$
Age 62	$(2.82\% \times \text{FAS3} - 1/3 \times 2.82\% \times \$350 \times 12) \times \text{Yrs}$
Age 65 and over	$(3.13\% \times \text{FAS3} - 1/3 \times 3.13\% \times \$350 \times 12) \times \text{Yrs}$

¹ Please refer to the discussion on page 8 of this report for breakdown between Regular and Settlement benefits we use for determining contribution rate requirements for funding purposes.

Section 4: Actuarial Valuation Basis

Tier and Retirement Age	Service Retirement Benefit Formula by Tier
General Tier 4 (§31676.1)	
Age 50	$(1.18\% \times \text{FAS3} - 1/3 \times 1.18\% \times \$350 \times 12) \times \text{Yrs}$
Age 55	$(1.49\% \times \text{FAS3} - 1/3 \times 1.49\% \times \$350 \times 12) \times \text{Yrs}$
Age 60	$(1.92\% \times \text{FAS3} - 1/3 \times 1.92\% \times \$350 \times 12) \times \text{Yrs}$
Age 62	$(2.09\% \times \text{FAS3} - 1/3 \times 2.09\% \times \$350 \times 12) \times \text{Yrs}$
Age 65 and over	$(2.43\% \times \text{FAS3} - 1/3 \times 2.43\% \times \$350 \times 12) \times \text{Yrs}$
General Tier 5 (§7522.20(a))	
Age 52	$1.00\% \times \text{FAS3} \times \text{Yrs}$
Age 55	$1.30\% \times \text{FAS3} \times \text{Yrs}$
Age 60	$1.80\% \times \text{FAS3} \times \text{Yrs}$
Age 62	$2.00\% \times \text{FAS3} \times \text{Yrs}$
Age 65	$2.30\% \times \text{FAS3} \times \text{Yrs}$
Age 67 and over	$2.50\% \times \text{FAS3} \times \text{Yrs}$
Safety Tier 1 — Regular Plus Settlement Benefit Pursuant to Ventura Settlement Agreement¹	
Age 50	$(2.50\% \times \text{FAS1} - 1/3 \times 2.50\% \times \$350 \times 12) \times \text{Yrs}$
Age 55 and over	$(3.27\% \times \text{FAS1} - 1/3 \times 3.27\% \times \$350 \times 12) \times \text{Yrs}$
Safety Tier 2 (§31664.2)	
Age 50	$(2.29\% \times \text{FAS1} - 1/3 \times 2.29\% \times \$350 \times 12) \times \text{Yrs}$
Age 55 and over	$(3.00\% \times \text{FAS1} - 1/3 \times 3.00\% \times \$350 \times 12) \times \text{Yrs}$
Safety Tier 4 (§31664)	
Age 50	$(2.00\% \times \text{FAS3} - 1/3 \times 2.00\% \times \$350 \times 12) \times \text{Yrs}$
Age 55 and over	$(2.62\% \times \text{FAS3} - 1/3 \times 2.62\% \times \$350 \times 12) \times \text{Yrs}$

¹ Please refer to the discussion on page 8 of this report for breakdown between Regular and Settlement benefits we use for determining contribution rate requirements for funding purposes.

Section 4: Actuarial Valuation Basis

Tier and Retirement Age	Service Retirement Benefit Formula by Tier
Safety Tier 5 (§7522.25(d))	
Age 50	$2.00\% \times \text{FAS3} \times \text{Yrs}$
Age 55	$2.50\% \times \text{FAS3} \times \text{Yrs}$
Age 57 and over	$2.70\% \times \text{FAS3} \times \text{Yrs}$

Disability benefits

Non-service connected disability¹

Provision by Tier	Non-Service Connected Disability Plan Provision
Eligibility	
All members	Five years of service (§31720).
Benefit amount	
General Tiers 1, 2, 4 and 5	1.5% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 65, but the total benefit cannot be more than one-third of Final Compensation. 100% of the Service Retirement benefit will be paid, if greater.
General Tier 3	1.8% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 65, but the total benefit cannot be more than one-third of Final Compensation. 100% of the Service Retirement benefit will be paid, if greater.
Safety Tiers 1, 2, 4 and 5	1.8% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 55, but the total benefit cannot be more than one-third of Final Compensation. 100% of the Service Retirement benefit will be paid, if greater.

¹ For General and Safety Tier 1 members who retire because of disability, there is an allocation of the value of their disability benefits made by the Association's Pension Administration System between the "Regular" and "Settlement" benefits assuming those members would have been eligible to retire and collect a service retirement benefit. While it does not change the total contribution rates paid by each of the employer and the employee, consistent with the prior valuations we have continued in this valuation to adjust the allocation of the rates between "Regular" and "Settlement" benefits so as to be consistent with the allocation made by the Association's Pension Administration System.

Section 4: Actuarial Valuation Basis

Service-connected disability¹

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 Compensation or 100% of Service Retirement benefit, if greater (§31727.4).

Pre-retirement death benefits

Non-service connected death

Provision by Tier	Pre-Retirement Death (Non-Service Connected) Benefit Plan Provision
Eligibility	
All members	No age or service requirements.
Vested members	Five years of service.
Benefit amount	
All members	Refund of member contributions with interest, plus one month's compensation for each year of service, to a maximum of six months' compensation (§31781).
Vested members	60% of the greater of Service or Non-Service-Connected Disability Retirement benefit payable to surviving eligible spouse or eligible children (§31765.1, §31781.1), in lieu of the basic lump sum benefit above (§31781).

¹ For General and Safety Tier 1 members who retire because of disability, there is an allocation of the value of their disability benefits made by the Association's Pension Administration System between the "Regular" and "Settlement" benefits assuming those members would have been eligible to retire and collect a service retirement benefit. While it does not change the total contribution rates paid by each of the employer and the employee, consistent with the prior valuations we have continued in this valuation to adjust the allocation of the rates between "Regular" and "Settlement" benefits so as to be consistent with the allocation made by the Association's Pension Administration System.

Section 4: Actuarial Valuation Basis

Service-connected death

Provision by Tier	Pre-Retirement Death (Service-Connected) 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, registered domestic partner or minor children (§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 (§31760.1). An eligible spouse is a surviving spouse who was married to the member at least one year prior to the day of retirement (§31760.1), or at least two years prior to the date of death, having attained age 55 on or prior to the date of death (§31786.1).

Service-connected disability retirement

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

Withdrawal benefits

Less than five years of service

Refund of accumulated employee contributions with interest, or earned benefit at age 70 (§31628). Effective January 1, 2003, a member may also elect to leave contributions on deposit in the retirement fund (§31629.5).

Five or more years of service

If contributions left on deposit, a member is entitled to earned benefits commencing at any time after eligible to retire (§31700).

Section 4: Actuarial Valuation Basis

Post-retirement cost-of-living benefits

Provision by Tier	Post-Retirement Cost-of-Living Benefit Plan Provision
General and Safety Tiers 1 and 2 and General Tier 3	Future changes based on changes to the Consumer Price Index for the West Region to a maximum of 3% per year, excess "banked" (§31870.1).
General and Safety Tiers 4 and 5	None.

Pre-retirement conversion of annual leave

Provision by Tier	Pre-Retirement Conversion of Annual Leave Plan Provision
General members	
New Annual Leave Plan (5Y)	Members who entered the Association on or before October 10, 1983 and in bargaining groups who have agreed to this plan may convert hours in excess of 1,100 hours to service at retirement.
Annual Leave Plan II (5Y)	Members who entered the Association after October 10, 1983 with accruals in the 5Y leave plan and in bargaining groups who have agreed to this plan may convert hours in excess of 400 hours to service at retirement.
Annual Leave IV Plan or the Old Annual Leave Plan (5O)	Members hired on or after October 10, 1983 or prior to that date, respectively, and who are in bargaining groups who have agreed to these plans, management or are unrepresented will convert any frozen hours balance to service at retirement.
Vacation/Sick Leave Plans (5Q, 5S and 5W)	Members who entered the Association on or after December 14, 1998 and in bargaining groups who have agreed to these plans may convert all accrued sick leave hours to service at retirement.
Safety members	
New Annual Leave Plan (5Y)	Members who entered the Association on or before October 10, 1983 and in bargaining groups who have agreed to this plan may convert hours in excess of 1,100 hours to service at retirement.
Annual Leave Plan II (5Y)	Members who entered the Association after October 10, 1983 with accruals in the 5Y leave plan and in bargaining groups who have agreed to this plan may convert hours in excess of 400 hours to service at retirement.
Annual Leave IV Plan or the Old Annual Leave Plan (5O)	Members hired on or after October 10, 1983 or prior to that date, respectively, and who are in bargaining groups who have agreed to these plans, management or are unrepresented will convert any frozen hours balance to service at retirement.
Vacation/Sick Leave Plans (5Q, 5S and 5W)	Members who entered the Association on or after December 14, 1998 and in bargaining groups who have agreed to these plans may convert all accrued sick leave hours to service at retirement.

Section 4: Actuarial Valuation Basis

Ventura Settlement benefits

Provision by Section	Ventura Settlement Plan Provision
Section 6	For Tier 1 members retiring on or after January 1, 2001 - The difference between the regular plus settlement benefits, and the regular benefit (i.e., \$31676.12 for General Tier 1 and \$31664 for Safety Tier 1).
Section 8	For Tier 1 members who retired prior to January 1, 2001 - \$15 per month per year of service, up to a maximum monthly benefit of \$450.
Section 9	All retired members (excluding General Tiers 4 & 5 and Safety Tier 5 members) are entitled to a \$3 per month per year of service benefit. Future increase in this benefit will depend on the amount of future undistributed earnings. For the purpose of this valuation, it is assumed that there will be no future increase in the amount of benefit.

Member contributions

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

Member Contribution Plan Provisions

Provision by Tier	Member Contribution Plan Provision
General Tier 1	
Regular Basic contributions	Entry-age based rates that provide for an annuity at age 60 equal to 1/200 of FAS1 (\$31621.5).
Regular Plus Settlement Basic contributions	Entry-age based rates that provide for an annuity at age 55 equal to 1/160 of FAS1 (\$31627).
Cost-of-Living contributions	Entry-age based rates that provide for one-half of future Cost-of-Living costs.
General Tier 2	
Basic contributions	Entry-age based rates that provide for an annuity at age 60 equal to 1/240 of FAS1 (\$31621.4).
Cost-of-Living contributions	Entry-age based rates that provide for one-half of future Cost-of-Living costs.
General Tier 3	
Basic contributions	Entry-age based rates that provide for an annuity at age 55 equal to 1/200 of FAS3 (\$31621.6 and \$31630).
Cost-of-Living contributions	Entry-age based rates that provide for one-half of future Cost-of-Living costs.

Section 4: Actuarial Valuation Basis

Provision by Tier	Member Contribution Plan Provision
General Tier 4	
Basic contributions	Entry-age based rates that provide for an annuity at age 60 equal to 1/120 of FAS3 (§31621).
Cost-of-Living contributions	None.
Safety Tier 1	
Regular Basic contributions	Entry-age based rates that provide for an annuity at age 50 equal to 1/200 of FAS1 (§31639.5).
Regular Plus Settlement Basic contributions	Entry-age based rates that provide for an annuity at age 50 equal to 1/160 of FAS1 (§31627).
Cost-of-Living contributions	Entry-age based rates that provide for one-half of future Cost-of-Living costs.
Safety Tier 2	
Regular Basic contributions	Entry-age based rates that provide for an annuity at age 50 equal to 1/200 of FAS1 (§31639.5).
Cost-of-Living contributions	Entry-age based rates that provide for one-half of future Cost-of-Living costs.
Safety Tier 4	
Regular Basic contributions	Entry-age based rates that provide for an annuity at age 50 equal to 1/100 of FAS3 (§31639.25).
Cost-of-Living contributions	None.
General and Safety Tier 5	
Contributions	Non-entry age based rates that provide for 50% of total normal cost rate.

Other information

Non-Tier 5 Safety members with 30 or more years of service are exempt from paying member contributions. The same applies for General members hired on or before March 7, 1973.

Changes in plan provisions

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

Section 4: Actuarial Valuation Basis

Exhibit 3: Member contribution rates

Comparison of Total Member Rate *General Members*

Entry Age	Based on June 30, 2024 Valuation ¹	Based on June 30, 2023 Valuation ¹	Change
General Tier 1²			
25	10.07%	10.05%	0.02%
35	11.55%	11.53%	0.02%
45	13.65%	13.63%	0.02%
General Tier 2²			
25	6.71%	6.69%	0.02%
35	7.68%	7.66%	0.02%
45	8.88%	8.85%	0.03%
General Tier 3²			
25	7.94%	7.93%	0.01%
35	9.11%	9.10%	0.01%
45	10.70%	10.69%	0.01%
General Tier 4²			
25	6.91%	6.89%	0.02%
35	7.89%	7.87%	0.02%
45	9.13%	9.11%	0.02%
General Tier 5			
Any age ³	7.96%	7.95%	0.01%

¹ Includes explicit administrative expense loads of 0.23% and 0.21% of payroll that have been allocated to the 2024 and 2023 member contribution rates, respectively.

² For non-Tier 5 members, contributions for the first \$350 of monthly payroll are based on 2/3 (no adjustment for the administrative expense load) of the above rates.

³ Tier 5 member rates are independent of entry age.

Section 4: Actuarial Valuation Basis

Comparison of Total Member Rate *Safety Members*

Entry Age	Based on June 30, 2024 Valuation ¹	Based on June 30, 2023 Valuation ¹	Change
Safety Tier 1²			
25	14.05%	13.95%	0.10%
30	14.92%	14.81%	0.11%
35	15.91%	15.80%	0.11%
Safety Tier 2²			
25	12.04%	12.02%	0.02%
30	12.77%	12.74%	0.03%
35	13.62%	13.60%	0.02%
Safety Tier 4²			
25	10.82%	10.80%	0.02%
30	11.48%	11.46%	0.02%
35	12.24%	12.22%	0.02%
Safety Tier 5			
Any age ³	13.00%	13.09%	(0.09%)

¹ Includes explicit administrative expense loads of 0.23% and 0.21% of payroll that have been allocated to the 2024 and 2023 member contribution rates, respectively.

² For non-Tier 5 members, contributions for the first \$350 of monthly payroll are based on 2/3 (no adjustment for the administrative expense load) of the above rates.

³ Tier 5 member rates are independent of entry age.

Section 4: Actuarial Valuation Basis

General Tier 1 Members' Contribution Rates Based on the June 30, 2024 Actuarial Valuation
(as a % of Monthly Payroll)

Entry Age	Basic Regular First \$350	Basic Regular Over \$350	COLA Regular First \$350	COLA Regular Over \$350	Basic Settlement First \$350	Basic Settlement Over \$350	COLA Settlement First \$350	COLA Settlement Over \$350	Total First \$350	Total Over \$350
15	2.68%	3.91%	1.72%	2.58%	1.03%	1.55%	0.59%	0.89%	6.02%	8.93%
16	2.68%	3.91%	1.72%	2.58%	1.03%	1.55%	0.59%	0.89%	6.02%	8.93%
17	2.72%	3.97%	1.75%	2.62%	1.04%	1.56%	0.59%	0.89%	6.10%	9.04%
18	2.76%	4.02%	1.77%	2.65%	1.05%	1.58%	0.61%	0.91%	6.19%	9.16%
19	2.79%	4.07%	1.79%	2.69%	1.07%	1.61%	0.61%	0.92%	6.26%	9.29%
20	2.82%	4.12%	1.81%	2.72%	1.09%	1.63%	0.62%	0.93%	6.34%	9.40%
21	2.86%	4.18%	1.85%	2.77%	1.10%	1.65%	0.63%	0.95%	6.44%	9.55%
22	2.90%	4.23%	1.87%	2.80%	1.12%	1.68%	0.64%	0.96%	6.53%	9.67%
23	2.93%	4.28%	1.89%	2.84%	1.14%	1.71%	0.65%	0.98%	6.61%	9.81%
24	2.97%	4.34%	1.92%	2.88%	1.15%	1.72%	0.66%	0.99%	6.70%	9.93%
25	3.01%	4.40%	1.95%	2.92%	1.17%	1.75%	0.67%	1.00%	6.80%	10.07%
26	3.04%	4.45%	1.97%	2.95%	1.19%	1.78%	0.68%	1.02%	6.88%	10.20%
27	3.08%	4.51%	2.00%	3.00%	1.20%	1.80%	0.69%	1.03%	6.97%	10.34%
28	3.12%	4.57%	2.03%	3.04%	1.22%	1.83%	0.70%	1.05%	7.07%	10.49%
29	3.16%	4.63%	2.05%	3.08%	1.23%	1.85%	0.71%	1.06%	7.15%	10.62%
30	3.20%	4.69%	2.08%	3.12%	1.25%	1.88%	0.72%	1.08%	7.25%	10.77%
31	3.24%	4.75%	2.11%	3.16%	1.27%	1.91%	0.73%	1.10%	7.35%	10.92%
32	3.29%	4.82%	2.14%	3.21%	1.29%	1.93%	0.74%	1.11%	7.46%	11.07%
33	3.33%	4.88%	2.17%	3.26%	1.31%	1.97%	0.75%	1.13%	7.56%	11.24%
34	3.38%	4.95%	2.20%	3.30%	1.33%	1.99%	0.76%	1.14%	7.67%	11.38%
35	3.42%	5.01%	2.23%	3.35%	1.35%	2.03%	0.77%	1.16%	7.77%	11.55%
36	3.46%	5.08%	2.27%	3.40%	1.37%	2.06%	0.79%	1.18%	7.89%	11.72%
37	3.51%	5.15%	2.29%	3.44%	1.40%	2.10%	0.80%	1.20%	8.00%	11.89%
38	3.56%	5.22%	2.33%	3.49%	1.43%	2.14%	0.82%	1.23%	8.14%	12.08%
39	3.60%	5.29%	2.36%	3.54%	1.45%	2.18%	0.83%	1.25%	8.24%	12.26%
40	3.66%	5.37%	2.40%	3.60%	1.48%	2.22%	0.85%	1.27%	8.39%	12.46%

Section 4: Actuarial Valuation Basis

Entry Age	Basic Regular First \$350	Basic Regular Over \$350	COLA Regular First \$350	COLA Regular Over \$350	Basic Settlement First \$350	Basic Settlement Over \$350	COLA Settlement First \$350	COLA Settlement Over \$350	Total First \$350	Total Over \$350
41	3.71%	5.45%	2.43%	3.65%	1.51%	2.27%	0.87%	1.30%	8.52%	12.67%
42	3.76%	5.53%	2.47%	3.71%	1.55%	2.32%	0.89%	1.33%	8.67%	12.89%
43	3.82%	5.61%	2.51%	3.77%	1.59%	2.39%	0.91%	1.37%	8.83%	13.14%
44	3.87%	5.69%	2.55%	3.82%	1.64%	2.46%	0.94%	1.41%	9.00%	13.38%
45	3.93%	5.78%	2.59%	3.89%	1.69%	2.53%	0.97%	1.45%	9.18%	13.65%
46	4.00%	5.88%	2.64%	3.96%	1.73%	2.59%	0.99%	1.49%	9.36%	13.92%
47	4.06%	5.98%	2.69%	4.03%	1.75%	2.62%	1.00%	1.50%	9.50%	14.13%
48	4.14%	6.09%	2.73%	4.10%	1.72%	2.58%	0.99%	1.48%	9.58%	14.25%
49	4.22%	6.21%	2.79%	4.19%	1.68%	2.52%	0.96%	1.44%	9.65%	14.36%
50	4.30%	6.33%	2.85%	4.27%	1.60%	2.40%	0.92%	1.38%	9.67%	14.38%
51	4.38%	6.45%	2.90%	4.35%	1.51%	2.27%	0.87%	1.30%	9.66%	14.37%
52	4.44%	6.55%	2.95%	4.42%	1.37%	2.06%	0.79%	1.18%	9.55%	14.21%
53	4.48%	6.60%	2.97%	4.46%	1.23%	1.85%	0.71%	1.06%	9.39%	13.97%
54	4.50%	6.64%	2.99%	4.49%	1.07%	1.61%	0.61%	0.92%	9.17%	13.66%
55	4.50%	6.64%	2.99%	4.49%	1.07%	1.61%	0.61%	0.92%	9.17%	13.66%
56	4.50%	6.63%	2.99%	4.48%	1.07%	1.61%	0.61%	0.92%	9.17%	13.64%
57	4.44%	6.55%	2.95%	4.42%	1.07%	1.61%	0.61%	0.92%	9.07%	13.50%
58	4.36%	6.43%	2.89%	4.34%	1.07%	1.61%	0.61%	0.92%	8.93%	13.30%
59 and over	4.26%	6.28%	2.83%	4.24%	1.07%	1.61%	0.61%	0.92%	8.77%	13.05%

Interest:	6.50% per annum
COLA:	2.75%
Administrative Expenses:	0.23% of payroll added to Basic Regular rates
Mortality:	See <i>Section 4, Exhibit 1</i>
Salary Increase:	Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See <i>Section 4, Exhibit 1</i>)
COLA Loading Factor:	70.00% for Regular Benefits, applied to Basic rates prior to adjustment for administrative expenses, and 57.34% for Settlement Benefits

Section 4: Actuarial Valuation Basis

General Tier 2 Members' Contribution Rates Based on the June 30, 2024 Actuarial Valuation (as a % of Monthly Payroll)

Entry Age	Basic Regular First \$350	Basic Regular Over \$350	COLA Regular First \$350	COLA Regular Over \$350	Total First \$350	Total Over \$350
15	2.28%	3.30%	1.77%	2.66%	4.05%	5.96%
16	2.28%	3.30%	1.77%	2.66%	4.05%	5.96%
17	2.30%	3.34%	1.80%	2.70%	4.10%	6.04%
18	2.34%	3.39%	1.83%	2.74%	4.17%	6.13%
19	2.36%	3.43%	1.85%	2.78%	4.21%	6.21%
20	2.39%	3.47%	1.87%	2.81%	4.26%	6.28%
21	2.42%	3.52%	1.90%	2.85%	4.32%	6.37%
22	2.45%	3.56%	1.93%	2.89%	4.38%	6.45%
23	2.48%	3.61%	1.95%	2.93%	4.43%	6.54%
24	2.52%	3.66%	1.99%	2.98%	4.51%	6.64%
25	2.54%	3.70%	2.01%	3.01%	4.55%	6.71%
26	2.58%	3.75%	2.03%	3.05%	4.61%	6.80%
27	2.61%	3.80%	2.07%	3.10%	4.68%	6.90%
28	2.64%	3.85%	2.09%	3.14%	4.73%	6.99%
29	2.68%	3.90%	2.12%	3.18%	4.80%	7.08%
30	2.71%	3.95%	2.15%	3.23%	4.86%	7.18%
31	2.74%	4.00%	2.18%	3.27%	4.92%	7.27%
32	2.78%	4.05%	2.21%	3.31%	4.99%	7.36%
33	2.82%	4.11%	2.25%	3.37%	5.07%	7.48%
34	2.85%	4.16%	2.27%	3.41%	5.12%	7.57%
35	2.89%	4.22%	2.31%	3.46%	5.20%	7.68%
36	2.92%	4.27%	2.34%	3.51%	5.26%	7.78%
37	2.96%	4.33%	2.37%	3.56%	5.33%	7.89%
38	3.00%	4.39%	2.41%	3.61%	5.41%	8.00%
39	3.04%	4.45%	2.44%	3.66%	5.48%	8.11%
40	3.08%	4.51%	2.47%	3.71%	5.55%	8.22%

Section 4: Actuarial Valuation Basis

Entry Age	Basic Regular First \$350	Basic Regular Over \$350	COLA Regular First \$350	COLA Regular Over \$350	Total First \$350	Total Over \$350
41	3.13%	4.58%	2.51%	3.77%	5.64%	8.35%
42	3.17%	4.64%	2.55%	3.83%	5.72%	8.47%
43	3.22%	4.71%	2.59%	3.89%	5.81%	8.60%
44	3.26%	4.78%	2.63%	3.95%	5.89%	8.73%
45	3.32%	4.86%	2.68%	4.02%	6.00%	8.88%
46	3.37%	4.94%	2.73%	4.09%	6.10%	9.03%
47	3.42%	5.02%	2.77%	4.16%	6.19%	9.18%
48	3.48%	5.11%	2.82%	4.23%	6.30%	9.34%
49	3.55%	5.21%	2.88%	4.32%	6.43%	9.53%
50	3.62%	5.31%	2.94%	4.41%	6.56%	9.72%
51	3.68%	5.41%	2.99%	4.49%	6.67%	9.90%
52	3.74%	5.49%	3.04%	4.56%	6.78%	10.05%
53	3.77%	5.54%	3.07%	4.61%	6.84%	10.15%
54	3.79%	5.57%	3.09%	4.63%	6.88%	10.20%
55	3.79%	5.57%	3.09%	4.63%	6.88%	10.20%
56	3.79%	5.57%	3.09%	4.63%	6.88%	10.20%
57	3.74%	5.50%	3.05%	4.57%	6.79%	10.07%
58	3.68%	5.40%	2.99%	4.49%	6.67%	9.89%
59 and over	3.59%	5.27%	2.91%	4.37%	6.50%	9.64%

Interest: 6.50% per annum

COLA: 2.75%

Administrative Expenses: 0.23% of payroll added to Basic Regular rates

Mortality: See *Section 4, Exhibit 1*

Salary Increase: Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit 1*)

COLA Loading Factor: 86.77% for Regular Benefits, applied to Basic rates prior to adjustment for administrative expenses

Section 4: Actuarial Valuation Basis

General Tier 3 Members' Contribution Rates Based on the June 30, 2024 Actuarial Valuation (as a % of Monthly Payroll)

Entry Age	Basic Regular First \$350	Basic Regular Over \$350	COLA Regular First \$350	COLA Regular Over \$350	Total First \$350	Total Over \$350
15	2.91%	4.25%	1.86%	2.79%	4.77%	7.04%
16	2.91%	4.25%	1.86%	2.79%	4.77%	7.04%
17	2.95%	4.31%	1.89%	2.83%	4.84%	7.14%
18	2.98%	4.36%	1.91%	2.87%	4.89%	7.23%
19	3.02%	4.42%	1.94%	2.91%	4.96%	7.33%
20	3.06%	4.48%	1.97%	2.95%	5.03%	7.43%
21	3.10%	4.54%	1.99%	2.99%	5.09%	7.53%
22	3.14%	4.60%	2.02%	3.03%	5.16%	7.63%
23	3.18%	4.66%	2.05%	3.08%	5.23%	7.74%
24	3.22%	4.72%	2.08%	3.12%	5.30%	7.84%
25	3.26%	4.78%	2.11%	3.16%	5.37%	7.94%
26	3.30%	4.84%	2.13%	3.20%	5.43%	8.04%
27	3.35%	4.91%	2.17%	3.25%	5.52%	8.16%
28	3.39%	4.97%	2.19%	3.29%	5.58%	8.26%
29	3.44%	5.04%	2.23%	3.34%	5.67%	8.38%
30	3.48%	5.11%	2.26%	3.39%	5.74%	8.50%
31	3.52%	5.17%	2.29%	3.43%	5.81%	8.60%
32	3.58%	5.25%	2.33%	3.49%	5.91%	8.74%
33	3.62%	5.32%	2.35%	3.53%	5.97%	8.85%
34	3.67%	5.39%	2.39%	3.58%	6.06%	8.97%
35	3.72%	5.47%	2.43%	3.64%	6.15%	9.11%
36	3.78%	5.55%	2.46%	3.69%	6.24%	9.24%
37	3.83%	5.63%	2.50%	3.75%	6.33%	9.38%
38	3.88%	5.71%	2.53%	3.80%	6.41%	9.51%
39	3.94%	5.80%	2.58%	3.87%	6.52%	9.67%
40	4.00%	5.89%	2.62%	3.93%	6.62%	9.82%

Section 4: Actuarial Valuation Basis

Entry Age	Basic Regular First \$350	Basic Regular Over \$350	COLA Regular First \$350	COLA Regular Over \$350	Total First \$350	Total Over \$350
41	4.07%	5.99%	2.67%	4.00%	6.74%	9.99%
42	4.14%	6.09%	2.71%	4.07%	6.85%	10.16%
43	4.21%	6.20%	2.76%	4.14%	6.97%	10.34%
44	4.28%	6.31%	2.81%	4.22%	7.09%	10.53%
45	4.35%	6.41%	2.86%	4.29%	7.21%	10.70%
46	4.40%	6.48%	2.89%	4.34%	7.29%	10.82%
47	4.43%	6.53%	2.91%	4.37%	7.34%	10.90%
48	4.44%	6.55%	2.93%	4.39%	7.37%	10.94%
49	4.44%	6.54%	2.92%	4.38%	7.36%	10.92%
50	4.40%	6.49%	2.90%	4.35%	7.30%	10.84%
51	4.35%	6.41%	2.86%	4.29%	7.21%	10.70%
52	4.26%	6.28%	2.80%	4.20%	7.06%	10.48%
53	4.38%	6.46%	2.89%	4.33%	7.27%	10.79%
54 and over	4.51%	6.65%	2.97%	4.46%	7.48%	11.11%

Interest: 6.50% per annum

COLA: 2.75%

Administrative Expenses: 0.23% of payroll added to Basic Regular rates

Mortality: See *Section 4, Exhibit 1*

Salary Increase: Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit 1*)

COLA Loading Factor: 69.43% for Regular Benefits, applied to Basic rates prior to adjustment for administrative expenses

Section 4: Actuarial Valuation Basis

General Tier 4 Members' Contribution Rates Based on the June 30, 2024 Actuarial Valuation (as a % of Monthly Payroll)

Entry Age	Basic Regular First \$350	Basic Regular Over \$350
15	4.16%	6.13%
16	4.16%	6.13%
17	4.22%	6.21%
18	4.28%	6.30%
19	4.33%	6.38%
20	4.38%	6.46%
21	4.44%	6.55%
22	4.50%	6.64%
23	4.56%	6.73%
24	4.62%	6.81%
25	4.68%	6.91%
26	4.74%	7.00%
27	4.80%	7.09%
28	4.87%	7.19%
29	4.93%	7.28%
30	5.00%	7.38%
31	5.06%	7.48%
32	5.13%	7.58%
33	5.20%	7.68%
34	5.27%	7.79%
35	5.34%	7.89%
36	5.41%	8.00%
37	5.48%	8.11%
38	5.56%	8.23%
39	5.64%	8.34%
40	5.72%	8.46%

Section 4: Actuarial Valuation Basis

Entry Age	Basic Regular First \$350	Basic Regular Over \$350
41	5.80%	8.59%
42	5.88%	8.71%
43	5.98%	8.85%
44	6.06%	8.98%
45	6.16%	9.13%
46	6.26%	9.28%
47	6.37%	9.44%
48	6.48%	9.61%
49	6.60%	9.78%
50	6.70%	9.94%
51	6.78%	10.06%
52	6.83%	10.13%
53	6.85%	10.16%
54	6.84%	10.15%
55	6.80%	10.08%
56	6.70%	9.94%
57	6.56%	9.73%
58	6.76%	10.02%
59 and over	6.96%	10.32%

Interest: 6.50% per annum
 COLA: 0.00%
 Administrative Expenses: 0.23% of payroll added to Basic Regular rates
 Mortality: See *Section 4, Exhibit 1*
 Salary Increase: Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit 1*)

Section 4: Actuarial Valuation Basis

Safety Tier 1 Members' Contribution Rates Based on the June 30, 2024 Actuarial Valuation (as a % of Monthly Payroll)

Entry Age	Basic Regular First \$350	Basic Regular Over \$350	COLA Regular First \$350	COLA Regular Over \$350	Basic Settlement First \$350	Basic Settlement Over \$350	COLA Settlement First \$350	COLA Settlement Over \$350	Total First \$350	Total Over \$350
15	3.56%	5.22%	3.63%	5.44%	0.83%	1.25%	0.54%	0.81%	8.56%	12.72%
16	3.56%	5.22%	3.63%	5.44%	0.83%	1.25%	0.54%	0.81%	8.56%	12.72%
17	3.60%	5.28%	3.67%	5.50%	0.84%	1.26%	0.54%	0.81%	8.65%	12.85%
18	3.64%	5.34%	3.71%	5.57%	0.85%	1.27%	0.55%	0.82%	8.75%	13.00%
19	3.67%	5.39%	3.75%	5.62%	0.86%	1.29%	0.55%	0.83%	8.83%	13.13%
20	3.71%	5.45%	3.79%	5.69%	0.87%	1.31%	0.56%	0.84%	8.93%	13.29%
21	3.75%	5.51%	3.83%	5.75%	0.88%	1.32%	0.57%	0.85%	9.03%	13.43%
22	3.79%	5.57%	3.88%	5.82%	0.89%	1.34%	0.57%	0.86%	9.13%	13.59%
23	3.83%	5.63%	3.92%	5.88%	0.91%	1.36%	0.59%	0.88%	9.25%	13.75%
24	3.88%	5.70%	3.97%	5.96%	0.91%	1.36%	0.59%	0.88%	9.35%	13.90%
25	3.92%	5.76%	4.01%	6.02%	0.92%	1.38%	0.59%	0.89%	9.44%	14.05%
26	3.96%	5.83%	4.07%	6.10%	0.93%	1.40%	0.60%	0.90%	9.56%	14.23%
27	4.00%	5.89%	4.11%	6.17%	0.95%	1.42%	0.61%	0.92%	9.67%	14.40%
28	4.05%	5.96%	4.16%	6.24%	0.95%	1.43%	0.61%	0.92%	9.77%	14.55%
29	4.10%	6.03%	4.21%	6.32%	0.97%	1.45%	0.63%	0.94%	9.91%	14.74%
30	4.14%	6.10%	4.27%	6.40%	0.98%	1.47%	0.63%	0.95%	10.02%	14.92%
31	4.20%	6.18%	4.32%	6.48%	0.99%	1.48%	0.63%	0.95%	10.14%	15.09%
32	4.24%	6.25%	4.37%	6.56%	1.01%	1.51%	0.65%	0.97%	10.27%	15.29%
33	4.30%	6.33%	4.43%	6.65%	1.02%	1.53%	0.66%	0.99%	10.41%	15.50%
34	4.35%	6.41%	4.49%	6.73%	1.03%	1.55%	0.67%	1.00%	10.54%	15.69%
35	4.41%	6.50%	4.55%	6.83%	1.05%	1.57%	0.67%	1.01%	10.68%	15.91%
36	4.47%	6.59%	4.62%	6.93%	1.06%	1.59%	0.69%	1.03%	10.84%	16.14%
37	4.54%	6.69%	4.69%	7.04%	1.07%	1.61%	0.69%	1.04%	10.99%	16.38%
38	4.60%	6.79%	4.77%	7.15%	1.09%	1.64%	0.71%	1.06%	11.17%	16.64%
39	4.68%	6.91%	4.85%	7.28%	1.11%	1.66%	0.71%	1.07%	11.35%	16.92%
40	4.76%	7.02%	4.93%	7.40%	1.13%	1.70%	0.73%	1.10%	11.55%	17.22%

Section 4: Actuarial Valuation Basis

Entry Age	Basic Regular First \$350	Basic Regular Over \$350	COLA Regular First \$350	COLA Regular Over \$350	Basic Settlement First \$350	Basic Settlement Over \$350	COLA Settlement First \$350	COLA Settlement Over \$350	Total First \$350	Total Over \$350
41	4.83%	7.13%	5.01%	7.52%	1.15%	1.73%	0.75%	1.12%	11.74%	17.50%
42	4.88%	7.21%	5.07%	7.60%	1.16%	1.74%	0.75%	1.12%	11.86%	17.67%
43	4.91%	7.25%	5.10%	7.65%	1.17%	1.75%	0.75%	1.13%	11.93%	17.78%
44	4.94%	7.29%	5.13%	7.69%	1.17%	1.76%	0.76%	1.14%	12.00%	17.88%
45	4.94%	7.30%	5.13%	7.70%	1.18%	1.77%	0.76%	1.14%	12.01%	17.91%
46	4.94%	7.30%	5.13%	7.70%	1.18%	1.77%	0.76%	1.14%	12.01%	17.91%
47	4.89%	7.22%	5.08%	7.62%	1.16%	1.74%	0.75%	1.12%	11.88%	17.70%
48	4.80%	7.08%	4.97%	7.46%	1.15%	1.72%	0.74%	1.11%	11.66%	17.37%
49 and over	4.70%	6.93%	4.87%	7.30%	1.11%	1.67%	0.72%	1.08%	11.40%	16.98%

Interest: 6.50% per annum

COLA: 2.75%

Administrative Expenses: 0.23% of payroll added to Basic Regular rates

Mortality: See *Section 4, Exhibit 1*

Salary Increase: Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit 1*)

COLA Loading Factor: 108.95% for Regular Benefits, applied to Basic rates prior to adjustment for administrative expenses, and 64.49% for Settlement Benefits

Section 4: Actuarial Valuation Basis

Safety Tier 2 Members' Contribution Rates Based on the June 30, 2024 Actuarial Valuation (as a % of Monthly Payroll)

Entry Age	Basic Regular First \$350	Basic Regular Over \$350	COLA Regular First \$350	COLA Regular Over \$350	Total First \$350	Total Over \$350
15	3.56%	5.22%	3.78%	5.67%	7.34%	10.89%
16	3.56%	5.22%	3.78%	5.67%	7.34%	10.89%
17	3.60%	5.28%	3.83%	5.74%	7.43%	11.02%
18	3.64%	5.34%	3.87%	5.81%	7.51%	11.15%
19	3.67%	5.39%	3.91%	5.86%	7.58%	11.25%
20	3.71%	5.45%	3.95%	5.93%	7.66%	11.38%
21	3.75%	5.51%	4.00%	6.00%	7.75%	11.51%
22	3.79%	5.57%	4.05%	6.07%	7.84%	11.64%
23	3.83%	5.63%	4.09%	6.14%	7.92%	11.77%
24	3.88%	5.70%	4.15%	6.22%	8.03%	11.92%
25	3.92%	5.76%	4.19%	6.28%	8.11%	12.04%
26	3.96%	5.83%	4.24%	6.36%	8.20%	12.19%
27	4.00%	5.89%	4.29%	6.43%	8.29%	12.32%
28	4.05%	5.96%	4.34%	6.51%	8.39%	12.47%
29	4.10%	6.03%	4.39%	6.59%	8.49%	12.62%
30	4.14%	6.10%	4.45%	6.67%	8.59%	12.77%
31	4.20%	6.18%	4.51%	6.76%	8.71%	12.94%
32	4.24%	6.25%	4.56%	6.84%	8.80%	13.09%
33	4.30%	6.33%	4.62%	6.93%	8.92%	13.26%
34	4.35%	6.41%	4.68%	7.02%	9.03%	13.43%
35	4.41%	6.50%	4.75%	7.12%	9.16%	13.62%
36	4.47%	6.59%	4.82%	7.23%	9.29%	13.82%
37	4.54%	6.69%	4.89%	7.34%	9.43%	14.03%
38	4.60%	6.79%	4.97%	7.45%	9.57%	14.24%
39	4.68%	6.91%	5.06%	7.59%	9.74%	14.50%
40	4.76%	7.02%	5.14%	7.71%	9.90%	14.73%

Section 4: Actuarial Valuation Basis

Entry Age	Basic Regular First \$350	Basic Regular Over \$350	COLA Regular First \$350	COLA Regular Over \$350	Total First \$350	Total Over \$350
41	4.83%	7.13%	5.23%	7.84%	10.06%	14.97%
42	4.88%	7.21%	5.29%	7.93%	10.17%	15.14%
43	4.91%	7.25%	5.32%	7.98%	10.23%	15.23%
44	4.94%	7.29%	5.35%	8.02%	10.29%	15.31%
45	4.94%	7.30%	5.35%	8.03%	10.29%	15.33%
46	4.94%	7.30%	5.35%	8.03%	10.29%	15.33%
47	4.89%	7.22%	5.29%	7.94%	10.18%	15.16%
48	4.80%	7.08%	5.19%	7.78%	9.99%	14.86%
49 and over	4.70%	6.93%	5.07%	7.61%	9.77%	14.54%

Interest:	6.50% per annum
COLA:	2.75%
Administrative Expenses:	0.23% of payroll added to Basic Regular rates
Mortality:	See <i>Section 4, Exhibit 1</i>
Salary Increase:	Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See <i>Section 4, Exhibit 1</i>)
COLA Loading Factor:	113.62% for Regular Benefits, applied to Basic rates prior to adjustment for administrative expenses

Section 4: Actuarial Valuation Basis

Safety Tier 4 Members' Contribution Rates Based on the June 30, 2024 Actuarial Valuation (as a % of Monthly Payroll)

Entry Age	Basic Regular First \$350	Basic Regular Over \$350
15	6.60%	9.79%
16	6.60%	9.79%
17	6.68%	9.90%
18	6.75%	10.01%
19	6.82%	10.12%
20	6.90%	10.23%
21	6.98%	10.35%
22	7.05%	10.46%
23	7.13%	10.58%
24	7.21%	10.70%
25	7.29%	10.82%
26	7.38%	10.95%
27	7.46%	11.08%
28	7.55%	11.21%
29	7.64%	11.34%
30	7.73%	11.48%
31	7.82%	11.62%
32	7.92%	11.76%
33	8.02%	11.92%
34	8.12%	12.07%
35	8.24%	12.24%
36	8.35%	12.41%
37	8.48%	12.60%
38	8.60%	12.79%
39	8.74%	12.99%
40	8.84%	13.15%

Section 4: Actuarial Valuation Basis

Entry Age	Basic Regular First \$350	Basic Regular Over \$350
41	8.92%	13.27%
42	8.97%	13.34%
43	8.99%	13.37%
44	8.99%	13.37%
45	8.93%	13.28%
46	8.81%	13.10%
47	8.64%	12.85%
48	8.90%	13.23%
49 and over	9.16%	13.63%

Interest: 6.50% per annum
 COLA: 0.00%
 Administrative Expenses: 0.23% of payroll added to Basic Regular rates
 Mortality: See *Section 4, Exhibit 1*
 Salary Increase: Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit 1*)

Section 4: Actuarial Valuation Basis

Tier 5 Members' Contribution Rates Based on the June 30, 2024 Actuarial Valuation *(as a % of Monthly Payroll)*

All Entry Ages	Total
General Tier 5	7.96%
Safety Tier 5	13.00%

Administrative Expenses: 0.23% of payroll added to the rates

Note: Tier 5 member contribution rate is 50% of the Normal Cost rates. It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2024 is \$151,446. For an employer that is not enrolled in Social Security, the maximum amount is \$181,734 (reference Section 7522.10). These amounts are adjusted for changes to the Consumer Price Index for All Urban Consumers after 2024 (reference Section 7522.10(d)).

Section 4: Actuarial Valuation Basis

Exhibit 4: Schedule of UAAL and associated funded ratios

UAAL and Associated Funded Ratios
(*\$ in '000s*)

Line Description	Regular Benefit	Settlement Benefit	Total
1. Actuarial Accrued Liability	\$6,170,705	\$1,579,145	\$7,749,850
2. Valuation Value of Assets	\$5,369,686	\$1,290,327	\$6,660,013
UAAL 1 – 2	\$801,019	\$288,818	\$1,089,837
Funded Ratio 2 ÷ 1	87.02%	81.71%	85.94%

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	<p>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:</p> <p>Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.)</p> <p>Multiplied by the probability of the occurrence of an event (such as survival, death, disability, withdrawal, etc.) on which the payment is conditioned, and</p> <p>Discounted according to an assumed rate (or rates) of return to reflect the time value of money.</p>

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.
Net pension liability	The net pension liability is equal to the total pension liability minus the plan fiduciary net position.
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.
Plan fiduciary net position	Market value of assets.
Service costs	The portions of the actuarial present value of projected benefit payments that are attributed to valuation years.
Total pension liability	The actuarial accrued liability under the entry age normal cost method and based on the blended discount rate as described in GASB 67 and 68.
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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