

# Mendocino County Employees Retirement Association

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



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November 12, 2024

Board of Retirement  
Mendocino County Employees Retirement Association  
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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 MCERA 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 MCERA and reasonable expectations. In addition, in our opinion, the combined effect of these assumptions is expected to have no significant bias.

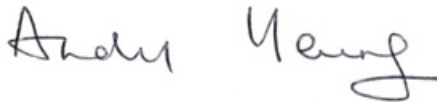
Board of Retirement  
Mendocino County Employees Retirement Association  
November 12, 2024

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.

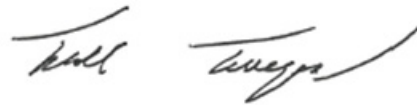
We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

Segal



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



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

DNA/jl

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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 Mendocino County Employees Retirement Association (“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 Retirement Association;
- The assets of the Plan as of June 30, 2024, provided by the Retirement Association;
- 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 adopted by the Board.<sup>1</sup> Details of the funding policy are provided in *Section 4, Exhibit 1* starting on page 88.

<sup>1</sup> A “Statement of Actuarial Funding Policy” was adopted by the Board on April 17, 2013. Subsequently, an “Actuarial Practices and Funding Policy” was adopted by the Board on April 19, 2017, which superseded the Statement of Actuarial Funding Policy. The Board amended the Actuarial Practices and Funding Policy on February 21, 2018 and then on June 15, 2022.

## Section 1: Actuarial Valuation Summary

On November 15, 2023, the Board adopted an Interest Crediting Policy with an Employee Crediting Rate of 2.5% per year, credited semiannually. The results of this valuation reflect a change in the interest rate we use to project members' contribution accounts that are used to project the refund amount available at withdrawal or death, to align with the Interest Crediting Policy. As this change has only resulted in a relatively small decrease in the present value of benefits of \$1.3 million, we have classified the resultant impact on the normal cost and actuarial accrued liability according to the entry age actuarial cost method in the "other" experience (gain)/loss category in this report.

As of this June 30, 2024 valuation, we understand that MCERA has transitioned to carrying reserves on their financial statements at the actuarial valuation value. Furthermore, the Contingency Reserve has been eliminated and the balance previously in that reserve of \$6.6 million has been transferred to the valuation reserves as of July 1, 2023. For the purpose of this valuation, we have treated the \$6.6 million as part of the investment gain during 2023/2024.

The rates calculated in this report may be adopted by the Board of Retirement 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 the valuation value of assets to actuarial accrued liability) increased from 72.4% to 74.2%. 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 71.6% to 74.2%. 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 System's funded ratios is provided in *Section 2, Subsection G* on pages 39 and 40.
2. The unfunded actuarial accrued liability (the difference between the actuarial accrued liability and the valuation value of assets) decreased from \$255.4 million to \$248.3 million. The decrease in unfunded actuarial accrued liability (UAAL) is primarily due to an investment return on the valuation value (i.e., after asset smoothing) greater than the assumed rate of 6.50% used in the June 30, 2023 valuation and individual salary increases for actives less than expected, offset somewhat by an increase in liabilities we calculated using updated data for reciprocal vested members provided by MCERA<sup>1</sup> and actual contributions less than expected. A reconciliation of the System's UAAL from the prior year is provided in *Section 2, Subsection E* on page 30.

<sup>1</sup> MCERA confirmed outgoing reciprocity for 92 deferred vested members that were not previously classified as reciprocal as of June 30, 2023. MCERA also conducted a reciprocal salary survey and updated the estimated final average salary for about 25 reciprocal vested members.

## Section 1: Actuarial Valuation Summary

A schedule of the current UAAL amortization balances and payments may be found in *Section 3, Exhibit I* starting on page 74. A graphical projection of the UAAL amortization balances and payments is provided in *Section 3, Exhibit J* starting on page 78.

### Actuarial experience

3. The net actuarial loss of \$2.3 million, or 0.24% of actuarial accrued liability, is due to a net loss from sources other than investments of \$12.6 million, or 1.31% of the actuarial accrued liability, offset to some degree by an investment gain of \$10.3 million, or 1.07% of actuarial accrued liability. The loss from sources other than investments was primarily due to data updates for reciprocal vested members.
4. The rate of return on the market value of assets was 9.27% for the year ending June 30, 2024. The return on the valuation value of assets was 8.05%<sup>1</sup> for the same period 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 gain when measured against the assumed rate of return of 6.50% used in the June 30, 2023 valuation. This actuarial investment gain (after asset smoothing) decreased the average employer contribution rate by 0.88% of payroll.
5. Effective with this June 30, 2024 valuation, we have implemented a process to transfer assets when a member changes from one membership group (General/Safety/Probation) to another. This is done to ensure that there is no impact on the membership group's UAAL contribution rate when such transfers occur. The amount of the asset transfer is equal to the actuarial accrued liability of the transferring members. Details of the asset transfer will be provided in a separate letter.

### Contributions

6. The average employer rate calculated in this valuation has increased from 40.07% to 41.29% of payroll. This increase is primarily due to the effect of amortizing the prior year's UAAL over a smaller than expected projected total salary, an increase in liabilities we calculated using updated data for reciprocal vested members provided by MCERA, and actual contributions less than expected, offset somewhat by the investment gain (after asset smoothing) and individual salary increases for actives less than expected. A complete reconciliation of the Association's aggregate employer rate is provided in *Section 2, Subsection F* on page 33.
7. The average member rate calculated in this valuation has decreased from 10.47% to 10.32% of payroll due to changes in active member demographics. A reconciliation of the Association's aggregate member rate is provided in *Section 2, Subsection F* on page 34.

<sup>1</sup> Without considering the transfer of \$6.6 million previously in the Contingency Reserve, the return on the valuation value of assets would have been 6.98%. After including the transfer, the return on the valuation value of assets has been increased from 6.98% to 8.05%.

## Section 1: Actuarial Valuation Summary

The individual member rates have been updated to reflect the valuation as of June 30, 2024. These rates are provided in *Section 4, Exhibit 3* of this report.

8. Under the Board's funding policy, in addition to the UAAL contribution rate, a dollar amortization amount equal to the UAAL contribution rate times the covered payroll (as estimated in the actuarial valuation that establishes such UAAL contribution rate) will be calculated for each employer. The final UAAL payment by each employer will be equal to the greater of the UAAL contribution rate times the actual covered payroll or the above dollar amortization amount.

Based on information provided by MCERA, we understand that there was no shortfall in the UAAL contributions for Fiscal Year (FY) 2023/2024 for any employer.

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 of Retirement meets this standard.

### Future expectations

10. The total unrecognized net investment **gain** (i.e., the difference between the market value of assets and the 'smoothed' actuarial value of assets) as of June 30, 2024 is \$145 thousand as compared to an unrecognized net investment **loss** of \$14.0 million in the previous valuation. This net deferred gain of \$145 thousand 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 gain of \$145 thousand represents less than 0.1% of the market value of assets as of June 30, 2024. Unless offset by future investment losses or other unfavorable experience, the \$145 thousand net deferred market gain is expected to have a very minor impact on the Association's future funded ratio and contribution rate requirements. This potential impact may be illustrated as follows:

- a. If the net deferred gain was recognized immediately in the actuarial value of assets, the funded percentage would remain at 74.2% (after rounding).

For comparison purposes, if the net deferred loss in the June 30, 2023 valuation and the Contingency Reserve had been recognized immediately in the June 30, 2023 valuation, the funded percentage would have decreased from 72.4% to 71.6%.

- b. If the net deferred gain was recognized immediately in the actuarial value of assets, the aggregate employer rate would remain at 41.3% of payroll (after rounding).

For comparison purposes, if the net deferred loss in the June 30, 2023 valuation and the Contingency Reserve had been recognized immediately in the June 30, 2023 valuation, the aggregate employer contribution rate would have increased from 40.26% to about 40.9% of payroll.

## Section 1: Actuarial Valuation Summary

11. Footnote 2 in the Determination of Actuarial Value of Assets on page 23 shows that under the asset smoothing method the \$145 thousand in the net deferred gain will be recognized in the next four years, but in a very uneven pattern. In particular, there will be a gain of \$8.6 million recognized next year, followed in successive following years by a loss of \$17.5 million, a gain of \$5.4 million, and a gain of \$3.7 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 years.

In keeping with the Board's Funding Policy and consistent with a similar action taken by the Board in 2012 and 2019, the asset smoothing method could be adjusted by combining the net deferred gain of \$145 thousand from the current valuation into a single four-year smoothing "layer" and thereby recognizing the net deferred gain of \$145 thousand over the next four years in four level amounts of approximately \$36 thousand each year. 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 unrecognized gain as of June 30, 2024 remains unchanged. Also, note that we recommend using a four-year smoothing period for the combined deferred net gain as that will complete the recognition of the net gain 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. After the completion of the triennial experience study recommending assumptions for the June 30, 2023 valuation, we prepared a stand-alone Risk Assessment report dated March 11, 2024 by using membership and financial information as provided in the actuarial valuation as of June 30, 2023. That report includes various projections (both deterministic and stochastic) of future results under different investment return scenarios together with the assumptions adopted for the June 30, 2023 valuation. For this valuation cycle, we have not been engaged to perform a detailed analysis of the potential range of the impact of risk relative to the Plan's future financial condition, but we have included a brief discussion of some risks that may affect the Plan in *Section 2, Subsection 1*, beginning on page 42. This discussion of risk is included to satisfy the disclosure required by the Actuarial Standard of Practice No. 51 (ASOP 51).

## Section 1: Actuarial Valuation Summary

14. The risk assessment in *Section 2, Subsection 1* includes the disclosure of a “Low-Default-Risk Obligation Measure” (LDROM). This disclosure, along with commentary on the significance of the LDROM, is a requirement under Actuarial Standard of Practice No. 4 (ASOP 4) for all pension funding actuarial valuation reports and can be found starting on page 45.

### **GASB**

15. 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, 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 Calculated as of June 30

Plan and Employer	2024 Contribution Rate	2024 Annual Amount <sup>1</sup>	2023 Contribution Rate	2023 Annual Amount <sup>1</sup>
<b>General</b>				
• General Tier 1	44.84%	\$47,000	43.62%	\$45,000
• General Tier 2/Tier 3	38.73%	8,392,000	37.51%	8,128,000
• General Tier 4	34.22%	17,408,000	32.98%	16,778,000
<b>Safety</b>				
• Safety Tier 1: Not Calculated <sup>2</sup>				
• Safety Tier 2	86.05%	4,670,000	83.92%	4,554,000
• Safety Tier 3	73.06%	5,059,000	70.70%	4,895,000
<b>Probation</b>				
• Probation Tier 1: Not Calculated <sup>2</sup>				
• Probation Tier 2	31.35%	556,000	34.94%	620,000
• Probation Tier 3	25.35%	480,000	26.77%	507,000
<b>All Categories Combined</b>	<b>41.29%</b>	<b>\$36,612,000</b>	<b>40.07%</b>	<b>\$35,527,000</b>

<sup>1</sup> Based on June 30, 2024 projected annual compensation.

<sup>2</sup> There were no Safety Tier 1 or Probation Tier 1 active members reported for the June 30, 2024 and June 30, 2023 valuations.

## Section 1: Actuarial Valuation Summary

### Average Member Contribution Calculated as of June 30

Plan and Employer	2024 Contribution Rate	2024 Annual Amount <sup>1</sup>	2023 Contribution Rate	2023 Annual Amount <sup>1</sup>
<b>General</b>				
• General Tier 1 <sup>2</sup>	0.00%	\$0	0.00%	\$0
• General Tier 2/Tier 3	11.12%	2,410,000	11.10%	2,405,000
• General Tier 4	8.86%	4,507,000	9.13%	4,645,000
<b>Safety</b>				
• Safety Tier 1: Not Calculated <sup>3</sup>				
• Safety Tier 2	13.98%	759,000	14.14%	767,000
• Safety Tier 3	13.82%	957,000	13.69%	948,000
<b>Probation</b>				
• Probation Tier 1: Not Calculated <sup>3</sup>				
• Probation Tier 2	14.66%	260,000	15.02%	266,000
• Probation Tier 3	13.44%	255,000	13.40%	254,000
<b>All Categories Combined</b>	<b>10.32%</b>	<b>\$9,148,000</b>	<b>10.47%</b>	<b>\$9,285,000</b>

<sup>1</sup> Based on June 30, 2024 projected annual compensation.

<sup>2</sup> The General Tier 1 member is exempt from employee contributions (i.e., they have a 0.00% member contribution rate because they have 30 or more years of service).

<sup>3</sup> There were no Safety Tier 1 or Probation Tier 1 active members reported for the June 30, 2024 and June 30, 2023 valuations.

# Section 1: Actuarial Valuation Summary

## Valuation Results as of June 30

Line Description	2024	2023
<b>Actuarial accrued liability</b>		
• Total actuarial accrued liability	\$963,282,735	\$926,631,003
– Retired members and beneficiaries	658,804,645	616,487,951
– Inactive members	48,650,106	33,837,153
– Active members	255,827,984	276,305,899
• Normal cost for plan year beginning June 30	19,584,000	20,689,000
<b>Assets</b>		
• Market value of assets (MVA)	\$715,112,157	\$663,909,608
• Actuarial value of assets (AVA)	714,967,069	677,876,651
• AVA as a percentage of MVA	100.0%	102.1%
• Valuation value of assets (VVA) <sup>1</sup>	\$714,967,069	\$671,244,999
<b>Funded status</b>		
• Unfunded actuarial accrued liability on MVA basis	\$248,170,578	\$262,721,395
• Funded percentage on MVA basis	74.2%	71.6%
• Unfunded actuarial accrued liability on VVA basis	\$248,315,666	\$255,386,004
• Funded percentage on VVA basis	74.2%	72.4%
<b>Key assumptions</b>		
• Net investment return	6.50%	6.50%
• Inflation rate	2.50%	2.50%
• Real across-the-board salary increase	0.50%	0.50%
• Payroll growth	3.00%	3.00%
• COLA assumption for tiers providing a COLA	2.75%	2.75%
• Amortization period on VVA basis <sup>2</sup>	18 years	18 years

<sup>1</sup> Excludes Contingency Reserve for the June 30, 2023 valuation.

<sup>2</sup> Changes in UAAL as a result of gains or losses for each valuation are amortized over separate 18-year periods. Details on the funding policy are provided in *Section 4, Exhibit 1*.

# Section 1: Actuarial Valuation Summary

## Demographic Data as of June 30

Demographic Data by Status	2024	2023	Change
<b>Active members</b>			
• Number of members	1,107	1,150	-3.7%
• Average age	44.6	45.3	-0.7
• Average eligibility service	8.7	8.8	-0.1
• Total projected compensation <sup>1</sup>	\$88,662,528	\$90,739,475	-2.3%
• Average projected compensation	\$80,093	\$78,904	1.5%
<b>Retired members and beneficiaries</b>			
• Number of members	1,718	1,678	2.4%
– Service retired	1,347	1,309	2.9%
– Disability retired	169	172	-1.7%
– Beneficiaries	202	197	2.5%
• Average age	71.7	71.3	0.4
• Average monthly benefit	\$2,371	\$2,259	5.0%
<b>Inactive members</b>			
• Number of members <sup>2</sup>	908	879	3.3%
• Average age	48.2	48.0	0.2
<b>Total members</b>	<b>3,733</b>	<b>3,707</b>	<b>0.7%</b>

<sup>1</sup> For June 30, 2024 (June 30, 2023), total projected compensation represents the annualized actual pensionable compensation earned during the 2023/2024 (2022/2023) fiscal year, but limited to the annualized biweekly pay rate plus other annual pensionable pay as of the measurement date, and projected to account for expected salary increases for the following fiscal year based on the actuarial assumptions.

<sup>2</sup> Includes inactive members due a refund of member contributions.

## 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
<b>Plan provisions</b>	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.
<b>Member information</b>	An actuarial valuation for a plan is based on data provided to the actuary by the Association. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
<b>Financial information</b>	Part of the cost of a plan will be paid from existing assets — the balance will need to come from future contributions and investment income. The valuation is based on the asset values as of the valuation date, typically reported by the Association. A snapshot as of a single date may not be an appropriate value for determining a single year’s contribution requirement, especially in volatile markets. Plan sponsors often use an “actuarial value of assets” that differs from market value to gradually reflect year-to-year changes in the market value of assets in determining the contribution requirements.
<b>Actuarial assumptions</b>	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 MCERA is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.
- Segal does not provide investment, legal, accounting or tax advice and is not acting as a fiduciary to the Plan. This valuation is based on Segal's understanding of applicable guidance in these areas and of the Plan's provisions, but they may be subject to alternative interpretations. The Association should look to their other advisors for expertise in these areas.
- While Segal maintains extensive quality assurance procedures, an actuarial valuation involves complex computer models and numerous inputs. In the event that an inaccuracy is discovered after presentation of Segal's valuation, Segal may revise that valuation or make an appropriate adjustment in the next valuation.
- Segal's report shall be deemed to be final and accepted by MCERA upon delivery and review. MCERA 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-E*.

### Member Population

As of June 30	Active Members	Inactive Members <sup>1</sup>	Retired Members and Beneficiaries (Pay Status)	Total Non-Actives	Ratio of Non-Actives to Actives	Ratio of Pay Status to Actives
2015	1,107	414	1,379	1,793	1.62	1.25
2016	1,123	428	1,416	1,844	1.64	1.26
2017	1,123	479	1,462	1,941	1.73	1.30
2018	1,162	497	1,490	1,987	1.71	1.28
2019	1,151	515	1,552	2,067	1.80	1.35
2020	1,140	546	1,587	2,133	1.87	1.39
2021	1,142	577	1,615	2,192	1.92	1.41
2022	1,123	923 <sup>2</sup>	1,650	2,573	2.29	1.47
2023	1,150	879	1,678	2,557	2.22	1.46
2024	1,107	908	1,718	2,626	2.37	1.55

<sup>1</sup> Includes inactive members due a refund of member contributions.

<sup>2</sup> There was an increase of about 309 inactive members due a pending refund of member contributions because MCERA had not credited all required interest to those members before they were refunded in prior years.

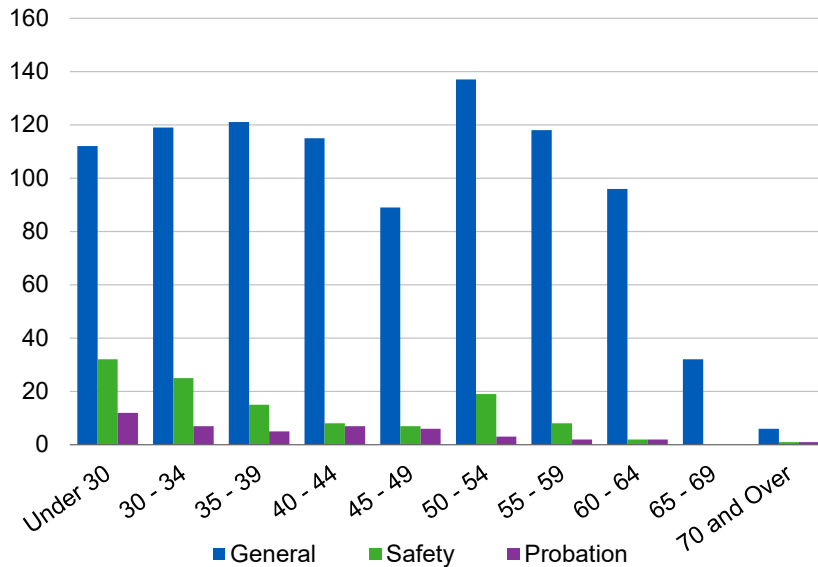
## Section 2: Actuarial Valuation Results

### Active members

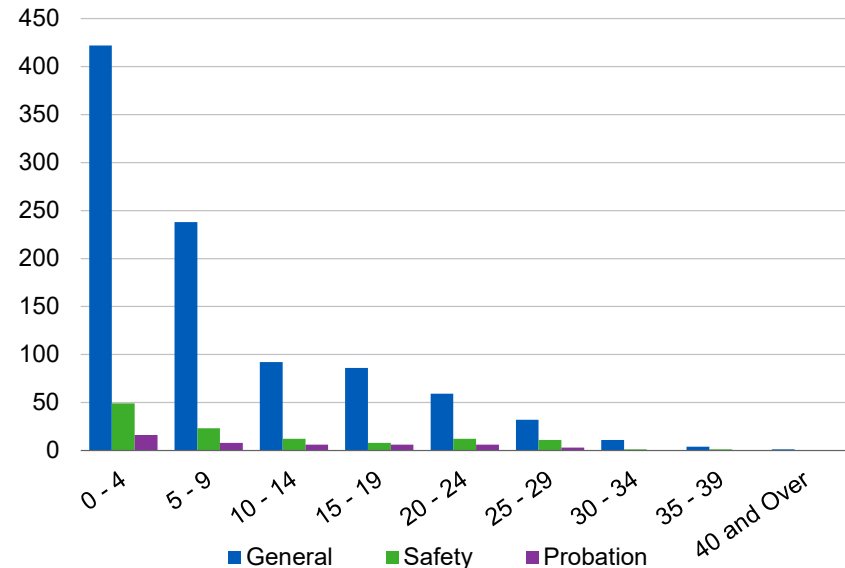
Demographic Data	As of June 30, 2024	As of June 30, 2023	Change
Active members	1,107	1,150	-3.7%
Average age <sup>1</sup>	44.6	45.3	-0.7
Average years of service	8.7	8.8	-0.1
Average compensation	\$80,093	\$78,904	1.5%

#### 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 <sup>2</sup>	908	879	3.3%

<sup>1</sup> Among the active members, there were none with unknown age information.

<sup>2</sup> Includes inactive members due a refund of member contributions.

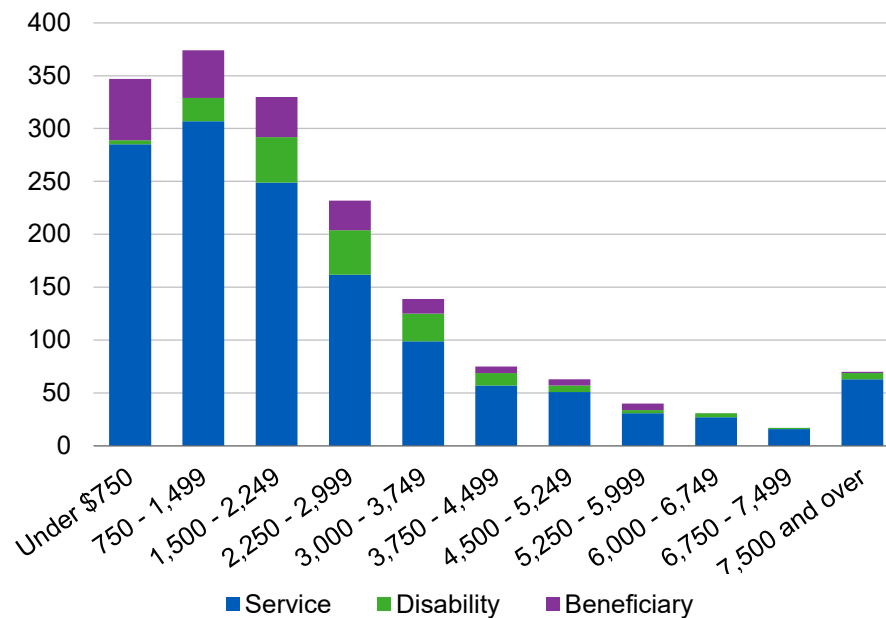
## Section 2: Actuarial Valuation Results

### Retired members and beneficiaries

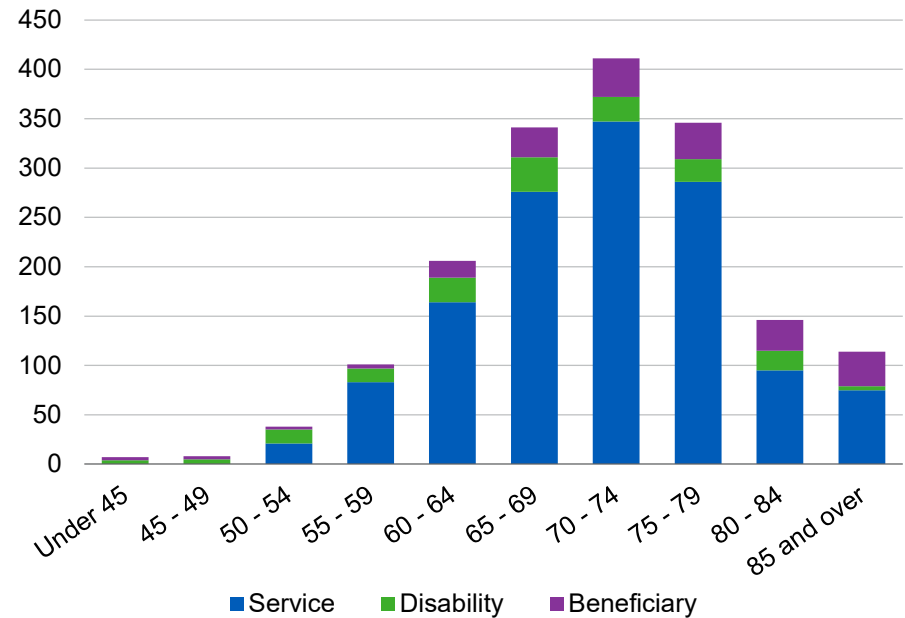
Demographic Data	As of June 30, 2024	As of June 30, 2023	Change
Retired members	1,516	1,481	2.4%
Beneficiaries	202	197	2.5%
Average age	71.7	71.3	0.4
Average monthly amount	\$2,371	\$2,259	5.0%
Total monthly amount	\$4,072,948	\$3,791,359	7.4%

#### 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 10 years. The chart also shows the growth among the retired population over the same time period.

#### Historical Member Data

##### *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	1,107	47.2	9.4	1,379	68.6	\$1,768
2016	1,123	47.0	9.1	1,416	68.8	1,822
2017	1,123	46.7	9.1	1,462	69.1	1,846
2018	1,162	46.5	8.8	1,490	69.3	1,919
2019	1,151	45.9	8.6	1,552	69.5	1,979
2020	1,140	46.2	8.7	1,587	70.0	2,047
2021	1,142	46.1	8.8	1,615	70.5	2,059
2022	1,123	45.7	8.5	1,650	70.8	2,161
2023	1,150	45.3	8.8	1,678	71.3	2,259
2024	1,107	44.6	8.7	1,718	71.7	2,371

## Section 2: Actuarial Valuation Results

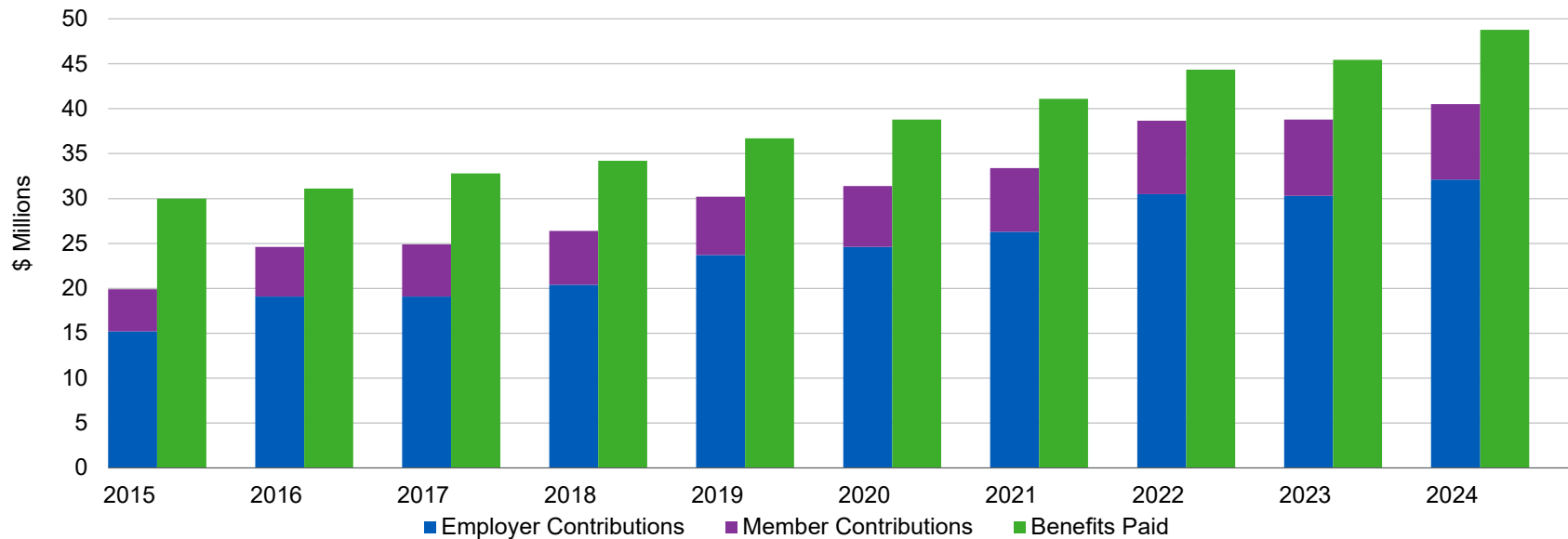
### B. Financial information

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 F, G and H.*

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	Investment Gain/(Loss) <sup>1</sup>	Percent Deferred	Amount
1. Market value of assets					\$715,112,157
<b>2. Calculation of deferred return</b>					
a. Year ended June 30, 2021	\$166,513,422	\$36,075,952	\$130,437,470	20%	\$26,087,494
b. Year ended June 30, 2022	(67,368,382)	46,768,862	(114,137,244)	40%	(45,654,898)
c. Year ended June 30, 2023	50,177,503	41,703,744	8,473,759	60%	5,084,256
d. Year ended June 30, 2024	61,117,194	42,831,899	18,285,295	80%	14,628,256
<b>e. Total deferred return<sup>2</sup></b>					<b>\$145,088</b>
<b>3. Preliminary actuarial value of assets: 1 – 2e</b>					<b>\$714,967,069</b>
4. Adjustment to be within 25% corridor					0
<b>5. Final actuarial value and valuation value of assets: 3 + 4</b>					<b>\$714,967,069</b>
6. Ratio of actuarial value to market value: <b>5 ÷ 1</b>					100.0%

**Note:** A breakdown of the valuation value of assets between the General, Safety and Probation membership groups has been provided by MCERA. In order to reflect the change in membership groups for certain members, we have made the following changes to the assets:

Membership Group	Transfer Assets
General	\$(236,075)
Safety	(1,989,037)
Probation	2,225,112
<b>Total</b>	<b>\$0</b>

<sup>1</sup> Administrative expenses are treated as benefit payments and are excluded from the calculation of actual versus expected income.

<sup>2</sup> The total deferred return as of June 30, 2024 is recognized in each of the next four years as follows (amounts may not total properly due to rounding):

a. Amount recognized on June 30, 2025	\$8,611,856
b. Amount recognized on June 30, 2026	(17,475,638)
c. Amount recognized on June 30, 2027	5,351,811
d. Amount recognized on June 30, 2028	3,657,059
<b>e. Total unrecognized return as of June 30, 2024</b>	<b>\$145,088</b>

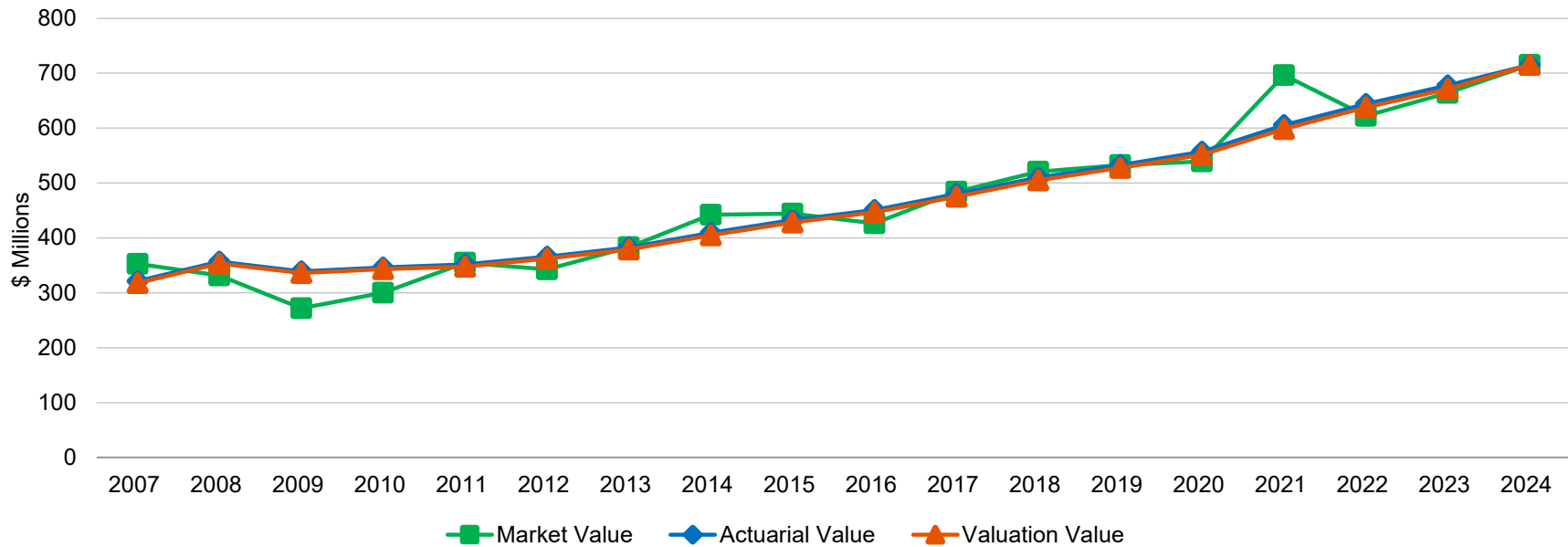
## Section 2: Actuarial Valuation Results

### Asset history

The market value, actuarial value and valuation value of assets are representations of the Plan's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets. The valuation value of assets is generally the actuarial value, excluding any non-valuation reserves. Starting with the June 30, 2024 valuation, the Contingency Reserve has been eliminated and the valuation value of assets equals the actuarial value of assets.

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

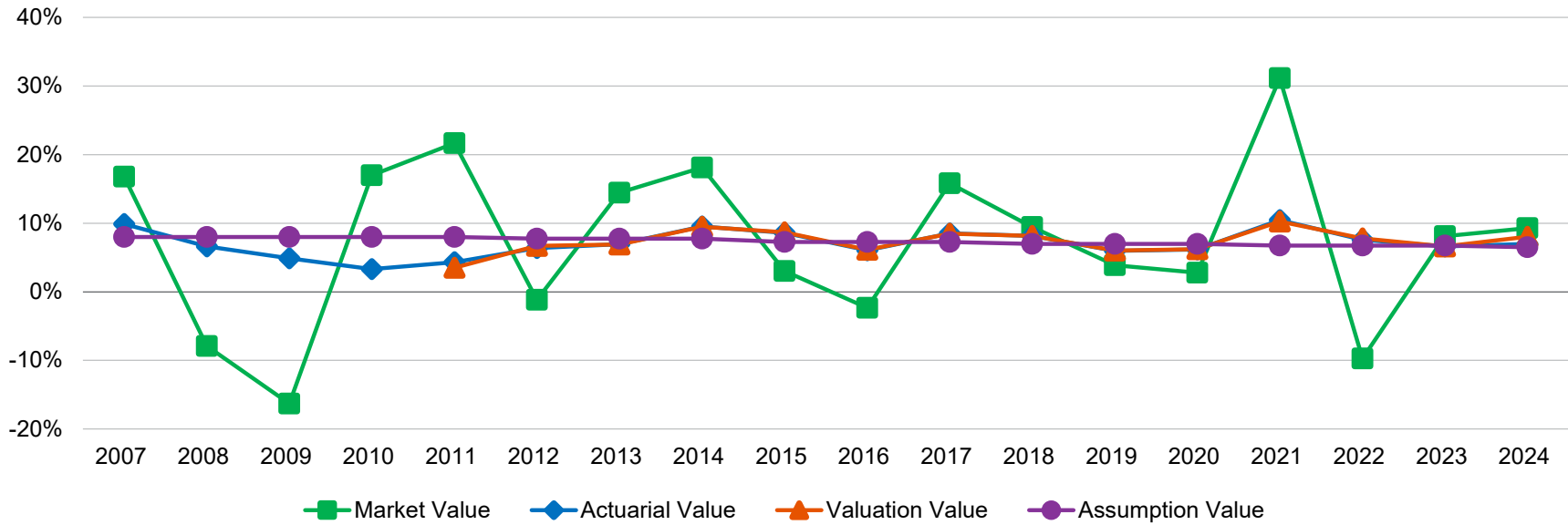
Market Value, Actuarial Value, and Valuation Value of Assets as of June 30



## Section 2: Actuarial Valuation Results

### Historical investment returns

Market Value, Actuarial Value and Valuation Value 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	16.80%	(7.90)%	(16.30)%	17.00%	21.68%	(1.16)%	14.44%	18.10%	3.02%	(2.35)%	15.80%	9.44%	3.86%	2.80%	31.16%	(9.72)%	8.12%	9.27%
◆ Actuarial rate	9.90%	6.60%	4.90%	3.30%	4.33%	6.38%	6.95%	9.54%	8.59%	6.04%	8.51%	8.16%	5.99%	6.16%	10.46%	7.58%	6.60%	6.99%
▲ Valuation rate	N/A	N/A	N/A	N/A	3.50%	6.69%	6.90%	9.48%	8.68%	6.14%	8.46%	8.17%	6.03%	6.21%	10.27%	7.79%	6.60%	8.05% <sup>1</sup>
● Assumed rate	8.00%	8.00%	8.00%	8.00%	8.00%	7.75%	7.75%	7.75%	7.25%	7.25%	7.25%	7.00%	7.00%	7.00%	6.75%	6.75%	6.75%	6.50%

Average Rates of Return	Market Value	Actuarial Value	Valuation Value
Most recent five-year geometric average return	7.54%	7.55%	7.77%
Most recent 10-year geometric average return	6.65%	7.50%	7.63%
Most recent 15-year geometric average return	8.96%	7.02%	N/A

<sup>1</sup> Without considering the transfer of \$6.6 million previously in the Contingency Reserve, the return on the valuation value of assets would have been 6.98%. After including the transfer, the return on the valuation value of assets has been increased from 6.98% to 8.05%.

## 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 gain from investments <sup>1</sup>	\$(10,328,016)
2. Net loss from contributions	5,521,225
3. Net loss from other experience <sup>2</sup>	7,054,451
<b>4. Net experience loss</b>	<b>\$2,247,660</b>

<sup>1</sup> Details on next page.

<sup>2</sup> See *Subsection E* for further details.

## 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 Plan'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 8.05%<sup>1</sup> after considering the recognition of prior years' investment gains and losses. Since the actual return for the year was more than the assumed return, the Plan experienced an actuarial gain during the year ended 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	\$61,117,194	\$47,005,063	\$53,636,715
2. Average value of assets	658,952,286	672,919,329	666,287,677
3. Rate of return: <b>1 ÷ 2</b>	9.27%	6.99%	8.05%
4. Assumed rate of return	6.50%	6.50%	6.50%
5. Expected investment income: <b>2 × 4</b>	\$42,831,899	\$43,739,756	\$43,308,699
<b>6. Investment gain/(loss): 1 – 5</b>	<b>\$18,285,295</b>	<b>\$3,265,307</b>	<b>\$10,328,016</b>

<sup>1</sup> Without considering the transfer of \$6.6 million previously in the Contingency Reserve, the return on the valuation value of assets would have been 6.98%. After including the transfer, the return on the valuation value of assets has been increased from 6.98% to 8.05%.

## Section 2: Actuarial Valuation Results

### Contributions

Contributions for the year ended June 30, 2024 totaled \$40.5 million, compared to the projected amount of \$45.9 million. This resulted in a loss of \$5.5 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)
- COLAs higher or lower than anticipated

The net loss from this other experience for the year ended June 30, 2024 amounted to \$7.1 million, which is 0.7% 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

On November 15, 2023, the Board adopted an Interest Crediting Policy with an Employee Crediting Rate of 2.5% per year, credited semiannually. The results of this valuation reflect a change in the interest rate we use to project members' contribution accounts that are used to project the refund amount available at withdrawal or death, to align with the Interest Crediting Policy. As this change has only resulted in a relatively small decrease in the present value of benefits of \$1.3 million, we have classified the resultant impact on the normal cost and actuarial accrued liability according to the entry age actuarial cost method in the "other" experience (gain)/loss category in this report.

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

Line Description	Amount
1. Unfunded actuarial accrued liability at beginning of year	\$255,386,004
2. Normal cost at middle of year	20,689,000
3. Expected employer and member contributions	(45,869,445)
4. Interest to end of year	15,862,447
<b>5. Expected unfunded actuarial accrued liability at end of year</b>	<b>\$246,068,006</b>
<b>6. Changes due to:</b>	
a. Investment return greater than expected, after asset smoothing <sup>1</sup>	\$(10,328,016)
b. Contribution loss due to one-year delay in implementing employer contribution rates in the June 30, 2023 valuation <sup>2</sup>	3,122,797
c. Contribution loss due to lower than expected increase in total payroll	2,398,428
d. Individual salary increases lower than expected for continuing General, Safety, and Probation active members	(5,757,469)
e. 2024 COLA increases higher than expected	254,241
f. Data updates for reciprocal vested members <sup>3</sup>	12,040,504
g. Other net experience (gain)/loss <sup>4</sup>	517,175
<b>h. Total changes</b>	<b>\$2,247,660</b>
<b>7. Unfunded actuarial accrued liability at end of year: 5 + 6f</b>	<b>\$248,315,666</b>

**Note:** The sum of items 6d through 6g equals the “Net (gain)/loss from other experience” shown in *Section 2, Subsection C*.

<sup>1</sup> Includes impact of eliminating the Contingency Reserve, which reduced the UAAL by about \$6.6 million as of July 1, 2023, before applying earnings for 2023/2024.

<sup>2</sup> The increase in employer contribution rate attributable to this loss was included in the employer rate determined in the June 30, 2023 valuation.

<sup>3</sup> MCERA confirmed outgoing reciprocity for 92 deferred vested members that were not previously classified as reciprocal as of June 30, 2023. MCERA also conducted a reciprocal salary survey and updated the estimated final average salary for about 25 reciprocal vested members.

<sup>4</sup> Includes impact of a change in the employee contribution crediting rate to align with the Interest Crediting Policy.

## 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 41.29% of compensation.

The Board sets the funding policy used to calculate the recommended contribution based on layered 18-year<sup>1</sup> 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 18 years. As shown in the graphical projection of the UAAL amortization balances and payments found in *Section 3, Exhibit 1*, before taking into consideration the deferred investment gains and/or losses that will be recognized in the next several valuations, the UAAL of the Plan is expected to be fully amortized by 2042, assuming all assumptions are realized and contributions are made in accordance with the funding policy.

The current funding policy is intended to fully fund the cost of the benefits and to allocate the cost of benefits reasonably and equitably over time while minimizing the volatility of employer contributions. The recommended contribution is expected to remain level as a percent of payroll, except when any current amortization layer is fully amortized and assuming there are no future actuarial gains or losses. Furthermore, the funded ratio is expected to increase as the UAAL is methodically funded by employer contributions. The recommended contribution under the funding policy is a “Reasonable Actuarially Determined Contribution” as required under Actuarial Standard of Practice No. 4 Measuring Pension Obligations and Determining Pension Plan Costs or Contributions.

<sup>1</sup> Changes in UAAL as a result of gains or losses or as a result of changes in actuarial assumptions or methods for each valuation are amortized over separate 18-year periods. Changes in UAAL as a result of plan amendments are generally amortized over separate 15-year periods.

## Section 2: Actuarial Valuation Results

### Average Recommended Employer Contribution Calculated as of June 30

Line Description	2024 Amount	2024 % of Projected Compensation	2023 Amount	2023 % of Projected Compensation
1. Total normal cost	\$19,584,000	22.09%	\$20,689,000	22.80%
2. Expected member normal cost contributions	9,148,000	10.32%	9,550,000	10.52%
3. Employer normal cost: <b>1 – 2</b>	\$10,436,000	11.77%	\$11,139,000	12.28%
4. Actuarial accrued liability	963,282,735		926,631,003	
5. Valuation value of assets	714,967,069		671,244,999	
6. Unfunded actuarial accrued liability: <b>4 – 5</b>	\$248,315,666		\$255,386,004	
7. Payment on UAAL <sup>1</sup>	\$26,176,000	29.52%	\$25,389,000	27.98%
<b>8. Average recommended employer contribution: 3 + 7</b>	<b>\$36,612,000</b>	<b>41.29%</b>	<b>\$36,528,000</b>	<b>40.26%</b>
9. Projected payroll	\$88,662,528		\$90,739,475	

**Note:** Contributions are assumed to be paid at the end of each pay period.

<sup>1</sup> Based on the total annual payment in *Section 3, Exhibit I* plus an amount associated with the anticipated contribution rate impact resulting from the 12-month lag between the date of the valuation and the date of the contribution rate implementation.

## Section 2: Actuarial Valuation Results

### Reconciliation of average recommended employer contribution rate

Reconciliation from June 30, 2023 to June 30, 2024

Item	Contribution Rate	Estimated Annual Dollar Amount <sup>1</sup>
1. Average Recommended Employer Contribution as of June 30, 2023	40.07%	\$35,527,000
<b>2. Changes due to:</b>		
a. Change in membership demographics	(0.14)%	(124,000)
b. Anticipated one-year delay in implementing the higher aggregate employer contribution rate developed in the June 30, 2024 valuation until fiscal year 2025/2026	0.08%	71,000
c. Investment return greater than expected, after asset smoothing <sup>2</sup>	(0.88)%	(780,000)
d. Contribution loss due to lower than expected increase in total payroll for General and Safety	0.20%	177,000
e. Individual salary increases lower than expected for continuing General, Safety, and Probation active members	(0.49)%	(434,000)
f. Amortizing prior year's UAAL over a smaller than expected projected total payroll	1.45%	1,286,000
g. 2024 COLA increases higher than expected	0.02%	18,000
h. Data updates for reciprocal vested members <sup>3</sup>	1.02%	904,000
i. Other net experience (gain)/loss <sup>4</sup>	(0.04)%	(33,000)
<b>j. Total change</b>	<b>1.22%</b>	<b>\$1,085,000</b>
<b>3. Average recommended employer contribution as of June 30, 2024: 1 + 2j</b>	<b>41.29%</b>	<b>\$36,612,000</b>

<sup>1</sup> Based on June 30, 2024 projected annual compensation as shown on the prior page.

<sup>2</sup> Includes impact of eliminating the Contingency Reserve, which reduced the contribution rate by about 0.61% of pay, or \$541,000.

<sup>3</sup> MCERA confirmed outgoing reciprocity for 92 deferred vested members that were not previously classified as reciprocal as of June 30, 2023. MCERA also conducted a reciprocal salary survey and updated the estimated final average salary for about 25 reciprocal vested members.

<sup>4</sup> Includes impact of a change in the employee contribution crediting rate to align with the Interest Crediting Policy.

## Section 2: Actuarial Valuation Results

### Reconciliation of average recommended member contribution rate

Reconciliation from June 30, 2023 to June 30, 2024

Item	Contribution Rate	Estimated Annual Dollar Amount <sup>1</sup>
1. Average recommended member contribution as of June 30, 2023	10.47%	\$9,285,000
<b>2. Changes due to:</b>		
a. Change in member demographics on normal cost and other gains <sup>2</sup>	(0.15)%	\$(137,000)
<b>b. Total change</b>	<b>(0.15)%</b>	<b>\$(137,000)</b>
<b>3. Average recommended member contribution as of June 30, 2024: 1 + 2b</b>	<b>10.32%</b>	<b>\$9,148,000</b>

<sup>1</sup> Based on June 30, 2024 projected compensation.

<sup>2</sup> Includes impact of a change in the employee contribution crediting rate to align with the Interest Crediting Policy.

## Section 2: Actuarial Valuation Results

### Recommended employer contribution rate

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

Component by Tier	2024 Basic Rate	2024 COLA Rate	2024 Total Rate	2024 Estimated Annual Amount <sup>1</sup>	2023 Basic Rate	2023 COLA Rate	2023 Total Rate	2023 Estimated Annual Amount <sup>1</sup>
<b>General Tier 1 Members</b>								
Normal cost	14.63%	4.85%	19.48%	\$20	14.91%	4.86%	19.77%	\$21
UAAL	20.17%	5.19%	25.36%	27	19.34%	4.51%	23.85%	24
<b>Total contribution</b>	<b>34.80%</b>	<b>10.04%</b>	<b>44.84%</b>	<b>\$47</b>	<b>34.25%</b>	<b>9.37%</b>	<b>43.62%</b>	<b>\$45</b>
<b>General Tier 2 / Tier 3 Members</b>								
Normal cost	10.19%	3.18%	13.37%	\$2,897	10.46%	3.20%	13.66%	\$2,960
UAAL	20.17%	5.19%	25.36%	5,495	19.34%	4.51%	23.85%	5,168
<b>Total contribution</b>	<b>30.36%</b>	<b>8.37%</b>	<b>38.73%</b>	<b>\$8,392</b>	<b>29.80%</b>	<b>7.71%</b>	<b>37.51%</b>	<b>\$8,128</b>
<b>General Tier 4 Members</b>								
Normal cost	8.86%	0.00%	8.86% <sup>2</sup>	\$4,507	9.13%	0.00%	9.13%	\$4,645
UAAL	20.17%	5.19%	25.36%	12,901	19.34%	4.51%	23.85%	12,133
<b>Total contribution</b>	<b>29.03%</b>	<b>5.19%</b>	<b>34.22%</b>	<b>\$17,408</b>	<b>28.47%</b>	<b>4.51%</b>	<b>32.98%</b>	<b>\$16,778</b>
<b>Safety Tier 1 Members</b>								
<b>Total contribution</b>			<b>N/A<sup>3</sup></b>					
<b>Safety Tier 2 Members</b>								
Normal cost	18.95%	7.86%	26.81%	\$1,455	19.13%	7.78%	26.91%	\$1,460
UAAL	44.72%	14.52%	59.24%	3,215	44.26%	12.75%	57.01%	3,094
<b>Total contribution</b>	<b>63.67%</b>	<b>22.38%</b>	<b>86.05%</b>	<b>\$4,670</b>	<b>63.39%</b>	<b>20.53%</b>	<b>83.92%</b>	<b>\$4,554</b>

1 Amounts are based on June 30, 2024 projected annual compensation.

2 There was a change in the average entry age from 39.8 to 39.1.

3 There were no Safety Tier 1 active members reported for the June 30, 2024 and June 30, 2023 valuations.

## Section 2: Actuarial Valuation Results

Component by Tier	2024 Basic Rate	2024 COLA Rate	2024 Total Rate	2024 Estimated Annual Amount <sup>1</sup>	2023 Basic Rate	2023 COLA Rate	2023 Total Rate	2023 Estimated Annual Amount <sup>1</sup>
<b>Safety Tier 3 Members</b>								
Normal cost	13.82%	0.00%	13.82%	\$957	13.69%	0.00%	13.69%	\$948
UAAL	44.72%	14.52%	59.24%	4,102	44.26%	12.75%	57.01%	3,947
<b>Total contribution</b>	<b>58.54%</b>	<b>14.52%</b>	<b>73.06%</b>	<b>\$5,059</b>	<b>57.95%</b>	<b>12.75%</b>	<b>70.70%</b>	<b>\$4,895</b>
<b>Probation Tier 1 Members</b>								
<b>Total contribution</b>	N/A <sup>2</sup>							
<b>Probation Tier 2 Members</b>								
Normal cost	14.32%	5.12%	19.44% <sup>3</sup>	\$345	16.06%	5.51%	21.57%	\$382
UAAL	10.23%	1.68%	11.91% <sup>4</sup>	211	10.97%	2.40%	13.37%	238
<b>Total contribution</b>	<b>24.55%</b>	<b>6.80%</b>	<b>31.35%</b>	<b>\$556</b>	<b>27.03%</b>	<b>7.91%</b>	<b>34.94%</b>	<b>\$620</b>
<b>Probation Tier 3 Members</b>								
Normal cost	13.44%	0.00%	13.44%	\$255	13.40%	0.00%	13.40%	\$254
UAAL	10.23%	1.68%	11.91%	225	10.97%	2.40%	13.37%	253
<b>Total contribution</b>	<b>23.67%</b>	<b>1.68%</b>	<b>25.35%</b>	<b>\$480</b>	<b>24.37%</b>	<b>2.40%</b>	<b>26.77%</b>	<b>\$507</b>
<b>All members combined</b>								
Normal cost	10.40%	1.37%	11.77%	\$10,436	10.66%	1.37%	12.03%	\$10,670
UAAL	23.18%	6.34%	29.52%	26,176	22.47%	5.57%	28.04%	24,857
<b>Total contribution</b>	<b>33.58%</b>	<b>7.71%</b>	<b>41.29%</b>	<b>\$36,612</b>	<b>33.13%</b>	<b>6.94%</b>	<b>40.07%</b>	<b>\$35,527</b>

**Note:** A breakdown of the employer minimum dollar contribution to amortize the UAAL by membership group (General/Safety/Probation) and employer (County of Mendocino/Mendocino County Superior Court/Russian River Cemetery District) is provided on page 38.

<sup>1</sup> Amounts are based on June 30, 2024 projected annual compensation.

<sup>2</sup> There were no Probation Tier 1 active members reported for the June 30, 2024 and June 30, 2023 valuations.

<sup>3</sup> There was a change in the average entry age from 31.5 to 30.2. This was due to two retirements with an average entry age 38.3 and the June 30, 2023 employer normal cost rate of about 36% for these two members, and two members transferring in from General and Safety with average entry age 27.2 and June 30, 2024 employer normal cost rate of about 18%.

<sup>4</sup> There was a reduction in the Probation UAAL rate primarily due to amortizing prior year's Probation UAAL over a larger than expected projected total Probation payroll.

## Section 2: Actuarial Valuation Results

The following June 30, 2024 projected annual compensation is used in developing employer contribution rates on the two previous pages.

### Projected Annual Compensation (*\$ in '000s*)

Tier	Projected Annual Compensation
General Tier 1	\$103,790
General Tier 2 / Tier 3	21,668,360
General Tier 4	50,872,228
Safety Tier 1	0
Safety Tier 2	5,426,963
Safety Tier 3	6,924,260
Probation Tier 1	0
Probation Tier 2	1,773,124
Probation Tier 3	1,893,803
<b>Total</b>	<b>\$88,662,528</b>

## Section 2: Actuarial Valuation Results

### Recommended minimum dollar employer contribution to amortize the UAAL

Estimated UAAL Annual Amounts<sup>1</sup> as of June 30, 2024  
 (\$ in '000s)

Plan and Employer	Basic	COLA	Total
<b>General Members</b>			
County	\$13,822	\$3,557	\$17,379
Courts	770	198	968
Cemetery District	61	15	76
<b>Total</b>	<b>\$14,653</b>	<b>\$3,770</b>	<b>\$18,423</b>
<b>Safety Members</b>			
County	\$5,523	\$1,794	\$7,317
<b>Total</b>	<b>\$5,523</b>	<b>\$1,794</b>	<b>\$7,317</b>
<b>Probation Members</b>			
County	\$374	\$62	\$436
<b>Total</b>	<b>\$374</b>	<b>\$62</b>	<b>\$436</b>
<b>All Members Combined</b>			
County	\$19,719	\$5,413	\$25,132
Courts	770	198	968
Cemetery District	61	15	76
<b>Total</b>	<b>\$20,550</b>	<b>\$5,626</b>	<b>\$26,176</b>

<sup>1</sup> Amounts are based on the following June 30, 2024 projected annual compensation:

Plan and Employer	Projected Annual Compensation
General County	\$68,528,492
General Courts	3,815,186
General Cemetery District	300,700
Safety County	12,351,223
Probation County	3,666,927
<b>Total</b>	<b>\$88,662,528</b>

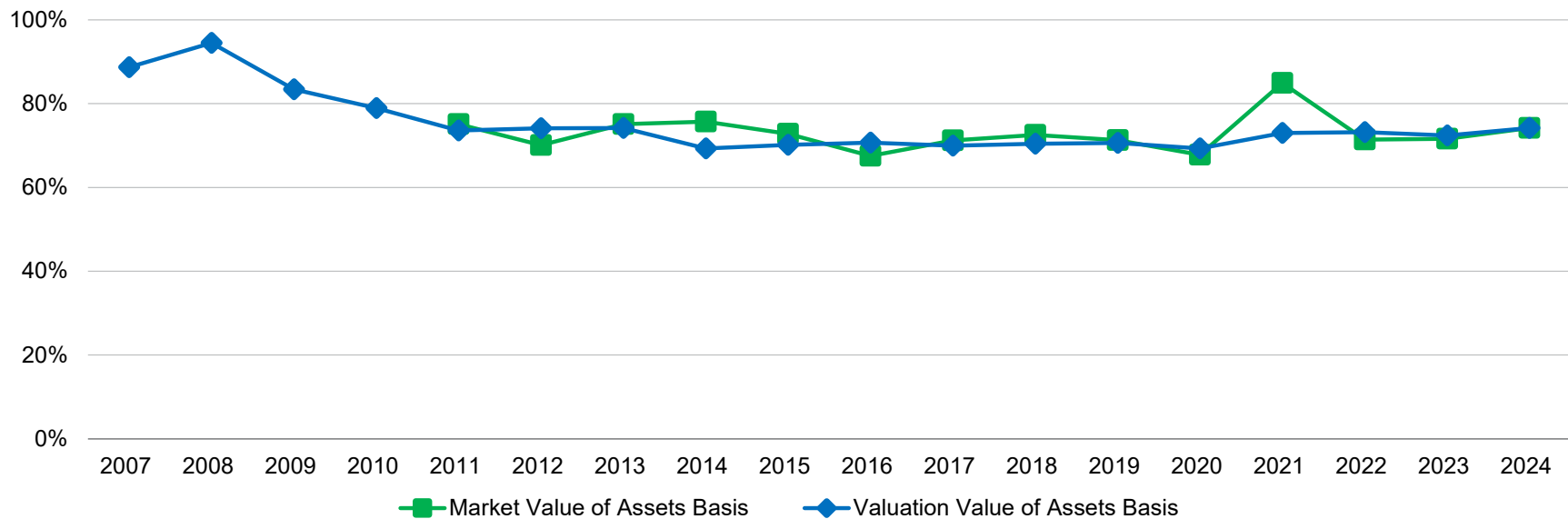
## Section 2: Actuarial Valuation Results

### G. Funded status

A commonly reported piece of information regarding the Plan's financial status is the funded ratio. These ratios compare the market 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 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 <sup>1</sup> (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b) – (a)	Funded Ratio (a) ÷ (b)	Projected Covered Payroll <sup>2</sup> (c)	UAAL as a % of Projected Covered Payroll [(b) – (a)] ÷ (c)
2015	\$428,228,929	\$610,381,849	\$182,152,920	70.2%	\$58,106,396	313.5%
2016	446,773,272	632,057,539	185,284,267	70.7	61,214,954	302.7
2017	475,224,924	679,565,362	204,340,438	69.9	62,335,605	327.8
2018	504,803,711	717,461,993	212,658,282	70.4	67,955,820	312.9
2019	527,367,477	747,065,374	219,697,897	70.6	71,124,175	308.9
2020	551,332,136	795,398,180	244,066,044	69.3	75,316,869	324.1
2021	598,428,325	819,983,481	221,555,156	73.0	80,908,634	273.8
2022	637,645,858	871,590,734	233,944,876	73.2	84,828,649	275.8
2023	671,244,999	926,631,003	255,386,004	72.4	90,739,475	281.4
2024	714,967,069	963,282,735	248,315,666	74.2	88,662,528	280.1

<sup>1</sup> Excludes assets for non-valuation reserves. Beginning with the June 30, 2024 valuation, equals the actuarial value of assets.

<sup>2</sup> Payroll includes a projection for expected salary increases during the year following the valuation date under the actuarial assumptions used in the valuation.

## 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	Basic	COLA	Total
<b>Liabilities</b>			
Present value of benefits for retired members and beneficiaries	\$371,763,897	\$287,040,748	\$658,804,645
Present value of benefits for inactive members	38,254,486	10,395,620	48,650,106
Present value of benefits for active members	311,842,611	65,518,070	377,360,681
<b>Total liabilities</b>	<b>\$721,860,994</b>	<b>\$362,954,438</b>	<b>\$1,084,815,432</b>
<b>Current and Future Assets</b>			
Total valuation value of assets	\$425,150,939	\$289,816,130	\$714,967,069
Present value of future contributions by members	55,612,587	4,357,438	59,970,025
Present value of future employer contributions for:			
• Entry age normal cost	55,078,112	6,484,560	61,562,672
• Unfunded actuarial accrued liability	186,019,356	62,296,310	248,315,666
<b>Total of current and future assets</b>	<b>\$721,860,994</b>	<b>\$362,954,438</b>	<b>\$1,084,815,432</b>

## 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. We recommend a more detailed assessment of the risks to provide the Board with a better understanding of the risks inherent in the Plan that can inform both financial preparation and future decision making. This assessment would enable us to work with the Board to highlight and illustrate particular risks or potential future outcomes they may be interested in discussing and could include scenario testing, sensitivity testing, stress testing and stochastic modeling.

After the completion of the triennial experience study recommending assumptions for the June 30, 2023 valuation, we prepared a stand-alone Risk Assessment report dated March 11, 2024 by using membership and financial information as provided in the actuarial valuation as of June 30, 2023. That report includes various projections (both deterministic and stochastic) of future results under different investment return scenarios together with the assumptions adopted for the June 30, 2023 valuation.

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.

## Section 2: Actuarial Valuation Results

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

The investment return assumption is a long-term, static assumption for valuation purposes even though in reality market experience can be quite volatile in any given year. That volatility can cause significant changes in the financial condition of the Plan, affecting both funded status and contribution rates. The inherent year-to-year volatility is reduced by smoothing through the valuation value of assets, however investment experience can still have a sizable impact. As discussed in *Section 2, Subsection J, Volatility Ratios*, on page 46, a 1% asset gain or loss (relative to the assumed investment return) translates to about 8.1% of one-year's payroll. Since actuarial gains and losses are amortized over 18 years, there would be a 0.6% 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 -9.72% to a high of 31.16%.

- **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 10 years:

- The funded percentage on the valuation value of assets basis has increased from 70.2% to 74.2%. This is primarily due to contributions made to amortize the UAAL (i.e., amortizing each layer of UAAL over 18 years as a level percentage of pay) and

## Section 2: Actuarial Valuation Results

average recent years' investment return on a smoothed basis greater than the assumption. For a more detailed history see *Section 2, Subsection G, Funded status* starting on page 39.

- The average geometric investment return on the valuation value of assets over the last 10 years was 7.63%. This includes a high of 10.27% and a low of 6.03%. The average over the last five years is 7.77%. For more details see the *Section 2, Subsection B, Historical investment returns* on page 25.
- Beyond investment experience, the primary source of new UAAL was the strengthening of assumptions through multiple assumption changes. In particular, the assumption changes in 2023 changed the discount rate from 6.75% to 6.50% and updated mortality tables, adding \$19 million in unfunded liability. The assumption changes in 2020 changed the discount rate from 7.00% to 6.75% and updated mortality tables, adding \$16 million in unfunded liability. The assumption changes in 2017 changed the discount rate from 7.25% to 7.00% and updated mortality tables, adding \$28 million in unfunded liability. For more details on unfunded liability changes see *Section 3, Exhibit I, Table of amortization bases* starting on page 74. A graphical representation of historical changes in UAAL by source was included in the stand-alone risk assessment report.
- The plan's funding policy effectively deals with these unfunded liabilities over time. This can be seen most clearly in *Section 3, Exhibit J, Projection of UAAL balances and payments* starting on page 78.

### Maturity measures

In the last 10 years the ratio of members in pay status to active participants has increased from 1.25 to 1.55. 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 \$8.3 million more than contributions received. Plans with high levels of negative cash flows may have a need for a larger allocation to income generating assets, which can create a drag on investment return. However, the Plan currently has relatively low levels of negative cash flow. For more details on historical cash flows see *Section 2, Subsection B, Financial information* on page 22.

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

## Section 2: Actuarial Valuation Results

### 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 a Low-Default-Risk Obligation Measure (LDRM) when performing a funding valuation. The LDRM 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 LDRM 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 LDRM 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 June 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 LDRM 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 LDRM for the Plan is \$1,347 million.<sup>1</sup> The difference between the Plan’s AAL of \$963 million and the LDRM can be thought of as the increase in the AAL if the entire portfolio were invested in low-default-risk securities. Alternatively, this difference could also be viewed as representing the expected savings from investing in the Plan’s diversified portfolio compared to investing only in low-default-risk securities.

ASOP 4 requires commentary to help the intended user understand the significance of the LDRM 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.

<sup>1</sup> For comparison purposes, as of June 30, 2023, the LDRM was \$1,349 million based on a discount rate of 3.65%, while the Plan’s AAL was \$927 million.

## 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 8.1. This means that a 1% asset gain or loss (relative to the assumed investment return) translates to about 8.1% of one-year's payroll. Since actuarial gains and losses are amortized over 18 years, there would be a 0.6% 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 10.9 but is 9.4 for General, 18.9 for Safety and 12.7 for Probation. This means, for example, that assumption changes will have a greater impact on employer contribution rates for Safety, followed by Probation and then General. The total Plan LVR is about 35% 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 Probation	AVR Total	LVR General	LVR Safety	LVR Probation	LVR Total
2015	7.1	10.4	8.2	7.6	9.6	15.2	10.3	10.5
2016	6.4	9.8	7.8	7.0	9.4	15.4	10.5	10.3
2017	7.1	10.9	8.4	7.8	9.9	16.2	10.7	10.9
2018	6.9	11.1	9.4	7.7	9.5	16.1	11.6	10.6
2019	6.7	10.9	10.3	7.5	9.4	15.6	13.0	10.5
2020	6.3	11.0	9.3	7.2	9.4	16.6	12.1	10.6
2021	7.5	13.7	12.1	8.6	8.9	16.4	11.9	10.1
2022	6.4	12.0	9.8	7.3	9.0	17.3	11.2	10.3
2023	6.3	12.5	11.7	7.3	8.8	18.3	12.9	10.2
2024	7.0	13.3	11.8	8.1	9.4	18.9	12.7	10.9

# Section 3: Supplemental Information

## Exhibit A: Table of plan demographics

### Total Plan – Demographics as of June 30

Demographic Data by Status	2024	2023	Change
<b>Active members</b>			
• Number	1,107	1,150	-3.7%
• Average age	44.6	45.3	-0.7
• Average years of service	8.7	8.8	-0.1
• Total projected compensation	\$88,662,528	\$90,739,475	-2.3%
• Average projected compensation	\$80,093	\$78,904	1.5%
• Account balances	\$61,135,256	\$62,779,119	-2.6%
• Total active vested members	620	653	-5.1%
<b>Inactive members<sup>1</sup></b>			
• Number	908	879	3.3%
• Average age	48.2	48.0	0.2
<b>Retired members</b>			
• Number	1,347	1,309	2.9%
• Average age	71.7	71.3	0.4
• Average monthly benefit	\$2,387	\$2,268	5.2%
<b>Disabled members</b>			
• Number	169	172	-1.7%
• Average age	67.7	67.5	0.2
• Average monthly benefit	\$2,956	\$2,836	4.2%
<b>Beneficiaries</b>			
• Number	202	197	2.5%
• Average age	74.9	74.4	0.5
• Average monthly benefit	\$1,771	\$1,701	4.1%

<sup>1</sup> Includes inactive members due a refund of member contributions.

## Section 3: Supplemental Information

### General Tier 1 – Demographics as of June 30

Demographic Data by Status	2024	2023	Change
<b>Active members</b>			
• Number	1	1	0.0%
• Average age	69.8	68.8	1.0
• Average years of service	43.5	42.5	1.0
• Total projected compensation	\$103,790	\$104,881	-1.0%
• Average projected compensation	\$103,790	\$104,881	-1.0%
• Account balances	\$377,030	\$367,778	2.5%
• Total active vested members	1	1	0.0%
<b>Inactive members</b>			
• Number	2	2	0.0%
• Average age	57.8	56.8	1.0
<b>Retired members</b>			
• Number	228	238	-4.2%
• Average age	78.8	78.0	0.8
• Average monthly benefit	\$3,471	\$3,334	4.1%
<b>Disabled members</b>			
• Number	18	20	-10.0%
• Average age	75.3	74.3	1.0
• Average monthly benefit	\$2,315	\$2,339	-1.0%
<b>Beneficiaries</b>			
• Number	69	68	1.5%
• Average age	80.6	80.1	0.5
• Average monthly benefit	\$2,203	\$2,099	5.0%

## Section 3: Supplemental Information

### General Tiers 2 and 3 – Demographics as of June 30

Demographic Data by Status	2024	2023	Change
<b>Active members</b>			
• Number	229	273	-16.1%
• Average age	53.5	53.6	-0.1
• Average years of service	20.2	19.4	0.8
• Total projected compensation	\$21,668,360	\$25,385,536	-14.6%
• Average projected compensation	\$94,622	\$92,987	1.8%
• Account balances	\$30,907,082	\$34,526,322	-10.5%
• Total active vested members	228	272	-16.2%
<b>Inactive members</b>			
• Number	356	374	-4.8%
• Average age	55.0	54.8	0.2
<b>Retired members</b>			
• Number	908	878	3.4%
• Average age	71.0	70.4	0.6
• Average monthly benefit	\$1,893	\$1,760	7.6%
<b>Disabled members</b>			
• Number	79	82	-3.7%
• Average age	67.5	66.6	0.9
• Average monthly benefit	\$2,104	\$2,036	3.3%
<b>Beneficiaries</b>			
• Number	92	88	4.5%
• Average age	72.2	71.8	0.4
• Average monthly benefit	\$1,293	\$1,241	4.2%

## Section 3: Supplemental Information

### General Tier 4 – Demographics as of June 30

Demographic Data by Status	2024	2023	Change
<b>Active members</b>			
• Number	715	718	-0.4%
• Average age	43.1	43.3	-0.2
• Average years of service	4.6	4.2	0.4
• Total projected compensation	\$50,872,228	\$49,636,221	2.5%
• Average projected compensation	\$71,150	\$69,131	2.9%
• Account balances	\$16,079,777	\$13,952,653	15.2%
• Total active vested members	294	280	5.0%
<b>Inactive members</b>			
• Number	422	378	11.6%
• Average age	44.6	43.8	0.8
<b>Retired members</b>			
• Number	40	31	29.0%
• Average age	67.5	66.4	1.1
• Average monthly benefit	\$727	\$617	17.8%
<b>Disabled members</b>			
• Number	3	1	200.0%
• Average age	53.0	55.3	-2.3
• Average monthly benefit	\$1,111	\$896	24.0%
<b>Beneficiaries</b>			
• Number	1	1	0.0%
• Average age	78.8	77.8	1.0
• Average monthly benefit	\$454	\$454	0.0%

## Section 3: Supplemental Information

### Safety Tiers 1 and 2 – Demographics as of June 30

Demographic Data by Status	2024	2023	Change
<b>Active members</b>			
• Number	38	47	-19.1%
• Average age	49.8	49.7	0.1
• Average years of service	22.3	22.3	0.0
• Total projected compensation	\$5,426,963	\$6,393,637	-15.1%
• Average projected compensation	\$142,815	\$136,035	5.0%
• Account balances	\$6,702,542	\$7,694,495	-12.9%
• Total active vested members	38	47	-19.1%
<b>Inactive members</b>			
• Number	41	43	-4.7%
• Average age	47.5	46.7	0.8
<b>Retired members</b>			
• Number	125	119	5.0%
• Average age	67.0	66.9	0.1
• Average monthly benefit	\$4,262	\$4,060	5.0%
<b>Disabled members</b>			
• Number	64	64	0.0%
• Average age	67.1	67.3	-0.2
• Average monthly benefit	\$4,312	\$4,080	5.7%
<b>Beneficiaries</b>			
• Number	35	35	0.0%
• Average age	70.7	69.9	0.8
• Average monthly benefit	\$2,175	\$2,081	4.5%

## Section 3: Supplemental Information

### Safety Tier 3 – Demographics as of June 30

Demographic Data by Status	2024	2023	Change
<b>Active members</b>			
• Number	79	71	11.3%
• Average age	33.0	32.6	0.4
• Average years of service	4.1	4.3	-0.2
• Total projected compensation	\$6,924,260	\$5,945,035	16.5%
• Average projected compensation	\$87,649	\$83,733	4.7%
• Account balances	\$2,800,149	\$2,349,016	19.2%
• Total active vested members	30	28	7.1%
<b>Inactive members</b>			
• Number	47	41	14.6%
• Average age	35.3	34.3	1.0
<b>Retired members</b>			
• Number	2	2	0.0%
• Average age	59.3	58.3	1.0
• Average monthly benefit	\$942	\$942	0.0%
<b>Disabled members</b>			
• Number	1	1	0.0%
• Average age	42.2	41.2	1.0
• Average monthly benefit	\$2,566	\$2,566	0.0%
<b>Beneficiaries</b>			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit	N/A	N/A	N/A

## Section 3: Supplemental Information

### Probation Tiers 1 and 2 – Demographics as of June 30

Demographic Data by Status	2024	2023	Change
<b>Active members</b>			
• Number	17	17	0.0%
• Average age	49.7	50.2	-0.5
• Average years of service	20.7	20.6	0.1
• Total projected compensation	\$1,773,124	\$1,764,956	0.5%
• Average projected compensation	\$104,301	\$103,821	0.5%
• Account balances	\$3,416,640	\$3,275,965	4.3%
• Total active vested members	17	17	0.0%
<b>Inactive members</b>			
• Number	16	17	-5.9%
• Average age	44.6	44.2	0.4
<b>Retired members</b>			
• Number	44	41	7.3%
• Average age	68.4	68.2	0.2
• Average monthly benefit	\$3,218	\$3,066	5.0%
<b>Disabled members</b>			
• Number	4	4	0.0%
• Average age	65.4	64.4	1.0
• Average monthly benefit	\$2,436	\$2,365	3.0%
<b>Beneficiaries</b>			
• Number	5	5	0.0%
• Average age	75.6	74.6	1.0
• Average monthly benefit	\$2,031	\$1,972	3.0%

## Section 3: Supplemental Information

### Probation Tier 3 – Demographics as of June 30

Demographic Data by Status	2024	2023	Change
<b>Active members</b>			
• Number	28	23	21.7%
• Average age	33.2	32.1	1.1
• Average years of service	4.5	4.1	0.4
• Total projected compensation	\$1,893,803	\$1,509,209	25.5%
• Average projected compensation	\$67,636	\$65,618	3.1%
• Account balances	\$852,036	\$612,890	39.0%
• Total active vested members	12	8	50.0%
<b>Inactive members</b>			
• Number	24	24	0.0%
• Average age	37.3	36.4	0.9
<b>Retired members</b>			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit	N/A	N/A	N/A
<b>Disabled members</b>			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit	N/A	N/A	N/A
<b>Beneficiaries</b>			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit	N/A	N/A	N/A

## Section 3: Supplemental Information

### Exhibit B: Distribution of active members

#### Total Plan

Active Counts and Average Projected Compensation by Age and Years of Service<sup>1</sup> 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	54	54	—	—	—	—	—	—	—	—
	\$55,498	\$55,498	—	—	—	—	—	—	—	—
25–29	102	83	19	—	—	—	—	—	—	—
	65,166	62,487	\$76,866	—	—	—	—	—	—	—
30–34	151	89	54	8	—	—	—	—	—	—
	72,406	69,043	74,583	\$95,124	—	—	—	—	—	—
35–39	141	77	31	21	11	1	—	—	—	—
	77,614	66,965	84,919	92,779	\$103,489	\$68,012	—	—	—	—
40–44	130	51	33	20	21	5	—	—	—	—
	86,200	70,827	80,932	98,735	112,740	116,175	—	—	—	—
45–49	102	25	28	15	14	14	6	—	—	—
	88,919	69,518	82,919	87,742	103,497	110,379	\$116,608	—	—	—
50–54	159	49	36	13	16	26	17	2	—	—
	88,608	73,913	72,398	96,144	95,780	113,641	111,334	\$115,476	—	—
55–59	128	25	31	12	20	18	13	9	—	—
	85,188	64,491	81,105	100,984	81,432	86,612	97,691	123,115	—	—
60–64	100	24	25	13	11	13	10	1	3	—
	82,740	64,890	82,566	83,627	89,471	99,586	92,964	75,308	\$93,852	—
65–69	32	9	10	7	4	—	—	—	1	1
	86,489	59,462	88,803	106,819	101,200	—	—	—	88,128	\$103,790
70 and over	8	1	2	1	3	—	—	—	1	—
	103,981	83,100	112,780	151,446	83,605	—	—	—	120,924	—
<b>Total</b>	<b>1,107</b>	<b>487</b>	<b>269</b>	<b>110</b>	<b>100</b>	<b>77</b>	<b>46</b>	<b>12</b>	<b>5</b>	<b>1</b>
	<b>\$80,093</b>	<b>\$66,210</b>	<b>\$79,596</b>	<b>\$94,984</b>	<b>\$97,558</b>	<b>\$103,928</b>	<b>\$104,173</b>	<b>\$117,858</b>	<b>\$98,122</b>	<b>\$103,790</b>

<sup>1</sup> Based on eligibility service.

## Section 3: Supplemental Information

### General Tier 1

#### Active Counts and Average Projected Compensation by Age and Years of Service<sup>1</sup> 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	—	—	—	—	—	—	—	—	—	—
45-49	—	—	—	—	—	—	—	—	—	—
50-54	—	—	—	—	—	—	—	—	—	—
55-59	—	—	—	—	—	—	—	—	—	—
60-64	—	—	—	—	—	—	—	—	—	—
65-69	1	—	—	—	—	—	—	—	—	1
	\$103,790	—	—	—	—	—	—	—	—	\$103,790
70 and over	—	—	—	—	—	—	—	—	—	—
<b>Total</b>	<b>1</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>1</b>
	<b>\$103,790</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>\$103,790</b>

<sup>1</sup> Based on eligibility service.

## Section 3: Supplemental Information

### General Tiers 2 and 3

#### Active Counts and Average Projected Compensation by Age and Years of Service<sup>1</sup> 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	1	—	1	—	—	—	—	—	—	—
	\$61,707	—	\$61,707	—	—	—	—	—	—	—
35-39	11	—	—	3	7	1	—	—	—	—
	87,190	—	—	\$88,641	\$89,308	\$68,012	—	—	—	—
40-44	28	—	—	7	17	4	—	—	—	—
	106,401	—	—	107,798	102,583	120,185	—	—	—	—
45-49	32	—	1	6	12	9	4	—	—	—
	93,619	—	55,916	78,628	106,555	93,456	\$87,092	—	—	—
50-54	48	—	—	5	15	18	8	2	—	—
	96,713	—	—	101,806	96,444	103,670	73,693	\$115,476	—	—
55-59	61	1	—	9	18	15	10	8	—	—
	88,489	\$27,429	—	102,308	79,029	82,124	89,295	112,789	—	—
60-64	39	—	—	3	10	12	10	1	3	—
	91,916	—	—	64,773	89,967	100,351	92,964	75,308	\$93,852	—
65-69	7	—	—	2	4	—	—	—	1	—
	125,454	—	—	192,626	101,200	—	—	—	88,128	—
70 and over	2	—	—	—	2	—	—	—	—	—
	84,778	—	—	—	84,778	—	—	—	—	—
<b>Total</b>	<b>229</b>	<b>1</b>	<b>2</b>	<b>35</b>	<b>85</b>	<b>59</b>	<b>32</b>	<b>11</b>	<b>4</b>	<b>—</b>
	<b>\$94,622</b>	<b>\$27,429</b>	<b>\$58,812</b>	<b>\$100,047</b>	<b>\$94,011</b>	<b>\$96,474</b>	<b>\$86,265</b>	<b>\$109,870</b>	<b>\$92,421</b>	<b>—</b>

<sup>1</sup> Based on eligibility service.

## Section 3: Supplemental Information

### General Tier 4

#### Active Counts and Average Projected Compensation by Age and Years of Service<sup>1</sup> 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	37	37	—	—	—	—	—	—	—	—
	\$51,052	\$51,052	—	—	—	—	—	—	—	—
25-29	75	60	15	—	—	—	—	—	—	—
	62,734	60,430	\$71,947	—	—	—	—	—	—	—
30-34	118	74	39	5	—	—	—	—	—	—
	68,563	67,525	68,252	\$86,365	—	—	—	—	—	—
35-39	110	72	27	11	—	—	—	—	—	—
	71,882	66,278	82,004	83,717	—	—	—	—	—	—
40-44	87	51	27	9	—	—	—	—	—	—
	75,016	70,827	78,613	87,966	—	—	—	—	—	—
45-49	57	25	26	6	—	—	—	—	—	—
	77,884	69,518	84,563	83,801	—	—	—	—	—	—
50-54	89	46	35	8	—	—	—	—	—	—
	73,667	72,045	71,471	92,606	—	—	—	—	—	—
55-59	57	23	30	3	1	—	—	—	—	—
	75,190	66,006	80,211	97,011	\$70,319	—	—	—	—	—
60-64	57	23	25	9	—	—	—	—	—	—
	74,158	61,127	82,566	84,104	—	—	—	—	—	—
65-69	24	9	10	5	—	—	—	—	—	—
	74,403	59,462	88,803	72,496	—	—	—	—	—	—
70 and over	4	1	2	1	—	—	—	—	—	—
	115,026	83,100	112,780	151,446	—	—	—	—	—	—
<b>Total</b>	<b>715</b>	<b>421</b>	<b>236</b>	<b>57</b>	<b>1</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>
	<b>\$71,150</b>	<b>\$65,297</b>	<b>\$77,804</b>	<b>\$86,841</b>	<b>\$70,319</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>

<sup>1</sup> Based on eligibility service.

## Section 3: Supplemental Information

### Safety Tiers 1 and 2

#### Active Counts and Average Projected Compensation by Age and Years of Service<sup>1</sup> 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	1	—	—	1	—	—	—	—	—	—
	\$130,136	—	—	\$130,136	—	—	—	—	—	—
35-39	5	—	—	2	3	—	—	—	—	—
	141,875	—	—	140,447	\$142,827	—	—	—	—	—
40-44	3	—	—	1	2	—	—	—	—	—
	158,718	—	—	125,181	175,487	—	—	—	—	—
45-49	6	—	—	1	1	2	2	—	—	—
	158,895	—	—	157,194	84,680	\$180,111	\$175,639	—	—	—
50-54	15	—	—	—	1	7	7	—	—	—
	139,737	—	—	—	85,817	136,337	150,839	—	—	—
55-59	7	—	—	—	1	3	2	1	—	—
	134,422	—	—	—	135,806	109,048	136,137	\$205,730	—	—
60-64	—	—	—	—	—	—	—	—	—	—
65-69	—	—	—	—	—	—	—	—	—	—
70 and over	1	—	—	—	—	—	—	—	1	—
	120,924	—	—	—	—	—	—	—	\$120,924	—
<b>Total</b>	<b>38</b>	<b>—</b>	<b>—</b>	<b>5</b>	<b>8</b>	<b>12</b>	<b>11</b>	<b>1</b>	<b>1</b>	<b>—</b>
	<b>\$142,815</b>	<b>—</b>	<b>—</b>	<b>\$138,681</b>	<b>\$135,720</b>	<b>\$136,810</b>	<b>\$152,675</b>	<b>\$205,730</b>	<b>\$120,924</b>	<b>—</b>

<sup>1</sup> Based on eligibility service.

## Section 3: Supplemental Information

### Safety Tier 3

#### Active Counts and Average Projected Compensation by Age and Years of Service<sup>1</sup> 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	14	14	—	—	—	—	—	—	—	—
	\$66,605	\$66,605	—	—	—	—	—	—	—	—
25-29	18	14	4	—	—	—	—	—	—	—
	75,334	69,626	\$95,312	—	—	—	—	—	—	—
30-34	24	12	11	1	—	—	—	—	—	—
	90,104	79,220	99,427	\$118,167	—	—	—	—	—	—
35-39	10	5	3	2	—	—	—	—	—	—
	98,053	76,851	115,541	124,828	—	—	—	—	—	—
40-44	5	—	3	2	—	—	—	—	—	—
	113,427	—	109,391	119,481	—	—	—	—	—	—
45-49	1	—	—	1	—	—	—	—	—	—
	117,834	—	—	117,834	—	—	—	—	—	—
50-54	4	3	1	—	—	—	—	—	—	—
	103,127	102,557	104,839	—	—	—	—	—	—	—
55-59	1	—	1	—	—	—	—	—	—	—
	107,927	—	107,927	—	—	—	—	—	—	—
60-64	2	1	—	1	—	—	—	—	—	—
	143,671	151,446	—	135,896	—	—	—	—	—	—
65-69	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
70 and over	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
<b>Total</b>	<b>79</b>	<b>49</b>	<b>23</b>	<b>7</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>
	<b>\$87,649</b>	<b>\$75,535</b>	<b>\$102,718</b>	<b>\$122,931</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>

<sup>1</sup> Based on eligibility service.

## Section 3: Supplemental Information

### Probation Tiers 1 and 2

#### Active Counts and Average Projected Compensation by Age and Years of Service<sup>1</sup> 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	2	—	—	1	1	—	—	—	—	—
	\$81,986	—	—	\$79,231	\$84,740	—	—	—	—	—
40-44	4	—	—	1	2	1	—	—	—	—
	109,269	—	—	64,278	136,333	\$100,133	—	—	—	—
45-49	4	—	—	—	1	3	—	—	—	—
	107,401	—	—	—	85,615	114,663	—	—	—	—
50-54	3	—	—	—	—	1	2	—	—	—
	127,176	—	—	—	—	134,256	\$123,637	—	—	—
55-59	1	—	—	—	—	—	1	—	—	—
	104,770	—	—	—	—	—	104,770	—	—	—
60-64	2	—	—	—	1	1	—	—	—	—
	87,457	—	—	—	84,512	90,402	—	—	—	—
65-69	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
70 and over	1	—	—	—	1	—	—	—	—	—
	81,260	—	—	—	81,260	—	—	—	—	—
<b>Total</b>	<b>17</b>	<b>—</b>	<b>—</b>	<b>2</b>	<b>6</b>	<b>6</b>	<b>3</b>	<b>—</b>	<b>—</b>	<b>—</b>
	<b>\$104,301</b>	<b>—</b>	<b>—</b>	<b>\$71,754</b>	<b>\$101,465</b>	<b>\$111,464</b>	<b>\$117,348</b>	<b>—</b>	<b>—</b>	<b>—</b>

<sup>1</sup> Based on eligibility service.

## Section 3: Supplemental Information

### Probation Tier 3

#### Active Counts & Average Projected Compensation by Age and Years of Service<sup>1</sup> 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	3	3	—	—	—	—	—	—	—	—
	\$58,507	\$58,507	—	—	—	—	—	—	—	—
25-29	9	9	—	—	—	—	—	—	—	—
	65,097	65,097	—	—	—	—	—	—	—	—
30-34	7	3	3	1	—	—	—	—	—	—
	69,776	65,777	\$70,081	\$80,861	—	—	—	—	—	—
35-39	3	—	1	2	—	—	—	—	—	—
	74,511	—	71,760	75,887	—	—	—	—	—	—
40-44	3	—	3	—	—	—	—	—	—	—
	73,346	—	73,346	—	—	—	—	—	—	—
45-49	2	—	1	1	—	—	—	—	—	—
	66,851	—	67,173	66,529	—	—	—	—	—	—
50-54	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
55-59	1	1	—	—	—	—	—	—	—	—
	66,709	66,709	—	—	—	—	—	—	—	—
60-64	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
65-69	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
70 and over	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
<b>Total</b>	<b>28</b>	<b>16</b>	<b>8</b>	<b>4</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>
	<b>\$67,636</b>	<b>\$64,089</b>	<b>\$71,152</b>	<b>\$74,791</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>

<sup>1</sup> Based on eligibility service.

## Section 3: Supplemental Information

### Exhibit C: Schedule of average benefit payment amounts

#### Counts and Average Monthly Benefits by Number of Years Since Retirement<sup>1</sup>

Line Description	0-4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30 Years and Over
<b>Valuation date: 6/30/2015</b>							
• Average monthly benefit of retirees	\$1,986	\$2,006	\$1,587	\$1,570	\$1,753	\$1,457	\$1,610
• Number of retirees	391	329	200	110	94	51	52
• Average monthly benefit of beneficiaries	\$1,308	\$1,208	\$1,184	\$961	\$1,654	\$1,226	\$1,091
• Number of beneficiaries	46	40	23	16	12	8	7
<b>Valuation date: 6/30/2016</b>							
• Average monthly benefit of retirees	\$1,987	\$2,057	\$1,831	\$1,596	\$1,553	\$1,742	\$1,711
• Number of retirees	388	337	222	118	92	53	52
• Average monthly benefit of beneficiaries	\$1,484	\$1,181	\$1,134	\$843	\$1,484	\$1,576	\$1,136
• Number of beneficiaries	50	41	23	14	11	8	7
<b>Valuation date: 6/30/2017</b>							
• Average monthly benefit of retirees	\$1,986	\$2,057	\$1,942	\$1,603	\$1,468	\$1,787	\$1,670
• Number of retirees	368	366	256	117	81	61	60
• Average monthly benefit of beneficiaries	\$1,461	\$1,300	\$1,236	\$917	\$1,381	\$1,534	\$1,280
• Number of beneficiaries	46	39	28	13	12	7	8
<b>Valuation date: 6/30/2018</b>							
• Average monthly benefit of retirees	\$2,065	\$2,115	\$2,111	\$1,560	\$1,510	\$1,866	\$1,766
• Number of retirees	333	392	284	127	81	62	58
• Average monthly benefit of beneficiaries	\$1,344	\$1,445	\$1,330	\$875	\$1,342	\$1,708	\$1,224
• Number of beneficiaries	47	38	27	13	14	6	8
<b>Valuation date: 6/30/2019</b>							
• Average monthly benefit of retirees	\$2,096	\$2,213	\$2,172	\$1,615	\$1,697	\$1,826	\$1,825
• Number of retirees	352	387	298	139	88	74	58
• Average monthly benefit of beneficiaries	\$1,293	\$1,571	\$1,381	\$1,058	\$1,186	\$1,978	\$1,478
• Number of beneficiaries	50	37	29	12	14	6	8

<sup>1</sup> For beneficiaries, number of years since benefit commencement.

## Section 3: Supplemental Information

Line Description	0-4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30 Years and Over
<b>Valuation date: 6/30/2020</b>							
• Average monthly benefit of retirees	\$2,161	\$2,264	\$2,293	\$1,810	\$1,731	\$1,905	\$1,759
• Number of retirees	333	383	303	182	89	76	61
• Average monthly benefit of beneficiaries	\$1,485	\$1,530	\$1,335	\$1,263	\$1,232	\$1,749	\$1,524
• Number of beneficiaries	52	38	30	12	11	8	9
<b>Valuation date: 6/30/2021</b>							
• Average monthly benefit of retirees	\$2,162	\$2,233	\$2,289	\$2,040	\$1,720	\$1,789	\$1,909
• Number of retirees	317	382	313	202	98	75	58
• Average monthly benefit of beneficiaries	\$1,325	\$1,683	\$1,359	\$1,409	\$1,086	\$1,356	\$1,779
• Number of beneficiaries	58	42	28	13	10	9	10
<b>Valuation date: 6/30/2022</b>							
• Average monthly benefit of retirees	\$2,438	\$2,246	\$2,346	\$2,202	\$1,805	\$1,732	\$1,998
• Number of retirees	315	357	337	229	100	62	65
• Average monthly benefit of beneficiaries	\$1,505	\$1,636	\$1,622	\$1,444	\$1,154	\$1,361	\$1,717
• Number of beneficiaries	72	38	29	16	11	7	12
<b>Valuation date: 6/30/2023</b>							
• Average monthly benefit of retirees	\$2,536	\$2,345	\$2,418	\$2,417	\$1,747	\$1,835	\$2,046
• Number of retirees	306	324	357	253	110	67	64
• Average monthly benefit of beneficiaries	\$1,902	\$1,497	\$1,871	\$1,521	\$1,130	\$1,262	\$1,769
• Number of beneficiaries	79	41	28	17	9	11	12
<b>Valuation date: 6/30/2024</b>							
• Average monthly benefit of retirees	\$2,973	\$2,341	\$2,526	\$2,467	\$1,747	\$1,977	\$2,049
• Number of retirees	288	343	356	270	116	69	74
• Average monthly benefit of beneficiaries	\$2,049	\$1,426	\$1,923	\$1,703	\$1,147	\$1,090	\$2,005
• Number of beneficiaries	77	48	27	21	6	10	13

## Section 3: Supplemental Information

### Exhibit D: Distribution of retired members and beneficiaries

Total Plan  
Counts and Average Annual Benefit by Age and Years in Retirement<sup>1</sup> 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 Years and Over
Under 45	7	4	2	1	—	—	—	—
	\$33,008	\$45,963	\$17,978	\$11,250	—	—	—	—
45-49	8	3	3	2	—	—	—	—
	24,816	13,092	23,136	42,402	—	—	—	—
50-54	38	24	8	2	3	1	—	—
	26,708	25,806	23,713	42,232	\$28,902	\$34,677	—	—
55-59	101	52	45	2	—	1	—	1
	35,811	49,304	21,373	23,302	—	21,775	—	\$22,929
60-64	206	66	72	50	10	3	3	2
	27,394	36,229	26,198	19,099	19,410	29,254	\$23,812	28,780
65-69	341	105	91	82	51	5	3	4
	28,049	33,166	29,763	28,844	14,434	26,287	22,504	18,422
70-74	411	53	117	116	80	31	8	6
	28,818	24,754	29,447	34,432	29,522	11,459	26,214	27,683
75-79	346	28	37	95	102	45	30	9
	29,111	24,511	22,228	32,378	36,874	19,161	19,412	31,323
80-84	146	16	8	25	35	20	21	21
	27,664	34,072	17,666	25,109	31,460	31,132	26,681	20,990
85 and over	114	14	8	8	10	16	14	44
	23,294	24,643	24,725	21,090	17,985	24,941	19,712	24,753
<b>Total</b>	<b>1,718</b>	<b>365</b>	<b>391</b>	<b>383</b>	<b>291</b>	<b>122</b>	<b>79</b>	<b>87</b>
	<b>\$28,449</b>	<b>\$33,338</b>	<b>\$26,748</b>	<b>\$29,801</b>	<b>\$28,937</b>	<b>\$20,613</b>	<b>\$22,371</b>	<b>\$24,507</b>

<sup>1</sup> For beneficiaries, number of years since benefit commencement.

## Section 3: Supplemental Information

### General

#### Counts and Average Annual Benefit by Age and Years in Retirement<sup>1</sup> 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 Years and Over
Under 45	2	1	1	—	—	—	—	—
	\$14,677	\$24,187	\$5,167	—	—	—	—	—
45-49	5	3	2	—	—	—	—	—
	13,162	13,092	13,266	—	—	—	—	—
50-54	19	15	4	—	—	—	—	—
	20,333	20,858	18,364	—	—	—	—	—
55-59	56	33	19	2	—	1	—	1
	20,232	21,922	16,749	\$23,302	—	\$21,775	—	\$22,929
60-64	160	58	52	37	8	2	2	1
	21,468	29,725	18,778	13,108	\$16,152	27,076	\$19,242	27,472
65-69	304	101	79	67	46	5	2	4
	24,792	32,977	25,916	18,696	14,178	26,287	24,302	18,422
70-74	365	48	109	109	64	29	4	2
	27,224	24,059	28,525	34,497	22,028	10,927	30,806	31,336
75-79	301	27	34	90	92	35	20	3
	27,323	23,025	19,570	33,261	33,994	14,070	12,694	23,290
80-84	120	14	8	25	30	17	13	13
	26,356	35,098	17,666	25,109	30,352	29,368	22,438	15,447
85 and over	106	14	7	8	9	16	14	38
	22,223	24,643	23,990	21,090	16,934	24,941	19,712	22,278
<b>Total</b>	<b>1,438</b>	<b>314</b>	<b>315</b>	<b>338</b>	<b>249</b>	<b>105</b>	<b>55</b>	<b>62</b>
	<b>\$25,219</b>	<b>\$27,922</b>	<b>\$23,908</b>	<b>\$27,616</b>	<b>\$25,629</b>	<b>\$18,238</b>	<b>\$18,761</b>	<b>\$21,032</b>

<sup>1</sup> For beneficiaries, number of years since benefit commencement.

## Section 3: Supplemental Information

### Safety

#### Counts and Average Annual Benefit by Age and Years in Retirement<sup>1</sup> 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 Years and Over
Under 45	5	3	1	1	—	—	—	—
	\$40,341	\$53,221	\$30,790	\$11,250	—	—	—	—
45-49	3	—	1	2	—	—	—	—
	42,560	—	42,876	42,402	—	—	—	—
50-54	15	6	4	2	3	—	—	—
	33,051	34,725	29,062	42,232	\$28,902	—	—	—
55-59	41	18	23	—	—	—	1	—
	58,434	99,971	25,926	—	—	—	\$29,212	—
60-64	40	7	16	12	2	1	1	1
	49,350	87,658	47,822	36,143	32,440	\$33,610	32,952	\$30,088
65-69	27	4	8	11	3	—	1	—
	60,156	37,938	62,773	80,561	21,730	—	18,910	—
70-74	28	4	5	2	8	1	4	4
	46,255	36,042	43,471	26,092	84,003	19,497	21,623	25,856
75-79	36	—	1	3	7	9	10	6
	39,543	—	101,830	12,783	57,229	38,029	32,848	35,340
80-84	24	1	—	—	4	3	8	8
	34,759	42,717	—	—	39,883	41,126	33,576	29,997
85 and over	8	—	1	—	1	—	—	6
	37,485	—	29,868	—	27,451	—	—	40,427
<b>Total</b>	<b>227</b>	<b>43</b>	<b>60</b>	<b>33</b>	<b>28</b>	<b>14</b>	<b>24</b>	<b>25</b>
	<b>\$47,013</b>	<b>\$72,552</b>	<b>\$40,043</b>	<b>\$48,210</b>	<b>\$52,728</b>	<b>\$37,053</b>	<b>\$30,643</b>	<b>\$33,124</b>

<sup>1</sup> For beneficiaries, number of years since benefit commencement.

## Section 3: Supplemental Information

### Probation

#### Counts and Average Annual Benefit by Age and Years in Retirement<sup>1</sup> 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 Years and Over
Under 45	—	—	—	—	—	—	—	—
45-49	—	—	—	—	—	—	—	—
50-54	4	3	—	—	—	1	—	—
	\$33,203	\$32,712	—	—	—	\$34,677	—	—
55-59	4	1	3	—	—	—	—	—
	22,041	40,915	\$15,749	—	—	—	—	—
60-64	6	1	4	1	—	—	—	—
	39,049	53,444	36,154	\$36,236	—	—	—	—
65-69	10	—	4	4	2	—	—	—
	40,401	—	39,706	56,601	\$9,392	—	—	—
70-74	18	1	3	5	8	1	—	—
	34,016	12,993	39,570	36,350	34,996	18,862	—	—
75-79	9	1	2	2	3	1	—	—
	47,168	64,629	27,615	22,012	77,703	27,520	—	—
80-84	2	1	—	—	1	—	—	—
	21,032	11,057	—	—	31,006	—	—	—
85 and over	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
<b>Total</b>	<b>53</b>	<b>8</b>	<b>16</b>	<b>12</b>	<b>14</b>	<b>3</b>	<b>—</b>	<b>—</b>
	<b>\$36,569</b>	<b>\$35,147</b>	<b>\$32,789</b>	<b>\$40,701</b>	<b>\$40,205</b>	<b>\$27,020</b>	<b>—</b>	<b>—</b>

<sup>1</sup> For beneficiaries, number of years since benefit commencement.

## Section 3: Supplemental Information

### Exhibit E: Reconciliation of member data

Line Description	Active Members	Inactive Members <sup>1</sup>	Retired Members	Disabled Members	Beneficiaries	Total
Number as of June 30, 2023	1,150	879	1,309	172	197	3,707
New members	129	0	0	0	16	145
Terminations with vested rights	-73	73	0	0	0	0
Contribution refunds	-47	-34	0	0	0	-81
Retirements	-51	-10	61	0	0	0
New disabilities	-4	-1	-1	6	0	0
Return to work	5	-5	0	0	0	0
Died with or without beneficiary	-2	-8	-22	-9	-11	-52
Data adjustments	0	14 <sup>2</sup>	0	0	0	14
<b>Number as of June 30, 2024</b>	<b>1,107</b>	<b>908</b>	<b>1,347</b>	<b>169</b>	<b>202</b>	<b>3,733</b>

<sup>1</sup> Includes inactive members due a refund of member contributions.

<sup>2</sup> All 14 entered and terminated employment after June 30, 2023.

## Section 3: Supplemental Information

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

#### Statement of Income and Expenses for Years Ended June 30

Line Description	2024	2023
<b>Contribution income</b>		
• Employer contributions	\$32,095,794	\$30,309,355
• Member contributions	8,423,567	8,492,670
– <b>Net contribution income</b>	<b>\$40,519,361</b>	<b>\$38,802,025</b>
<b>Investment income</b>		
• Investment, dividends and other income	\$28,285,511	\$14,448,390
• Asset appreciation	34,933,342	37,224,908
• Less investment expenses	(2,101,659)	(1,495,795)
– <b>Net investment income</b>	<b>\$61,117,194</b>	<b>\$50,177,503</b>
<b>Total income available for benefits</b>	<b>\$101,636,555</b>	<b>\$88,979,528</b>
<b>Less benefit payments</b>		
• Benefit payments and refunds	\$(48,795,169)	\$(45,454,533)
• Administrative expenses	(1,638,837)	(1,549,772)
– <b>Net benefit payments</b>	<b>\$(50,434,006)</b>	<b>\$(47,004,305)</b>
<b>Change in market value of assets</b>	<b>\$51,202,549</b>	<b>\$41,975,223</b>
<b>Net assets at market value at the beginning of the year</b>	<b>\$663,909,608</b>	<b>\$621,934,385</b>
<b>Net assets at market value at the end of the year</b>	<b>\$715,112,157</b>	<b>\$663,909,608</b>

## Section 3: Supplemental Information

### Exhibit G: Summary statement of plan assets

#### Statement of Plan Assets as of June 30

Line Description	2024	2023
<b>Cash equivalents</b>	<b>\$233,783</b>	<b>\$677,082</b>
<b>Accounts receivable</b>		
• Member contributions	\$187,532	\$190,056
• Employer contributions	722,549	716,757
• Other	47,028	667,439
– <b>Total accounts receivable</b>	<b>\$957,109</b>	<b>\$1,574,252</b>
<b>Investments</b>		
• Fixed income	\$146,434,880	\$129,681,011
• Equities	444,047,470	400,368,296
• Infrastructure, real estate and real estate partnerships	124,674,431	133,115,903
– <b>Total investments at market value</b>	<b>\$715,156,781</b>	<b>\$663,165,210</b>
<b>Equipment</b>	<b>\$0</b>	<b>\$79,383</b>
<b>Total assets</b>	<b>\$716,347,673</b>	<b>\$665,495,927</b>
<b>Accounts payable</b>		
• Accounts payable	\$(263,382)	\$(392,592)
• Accrued expenses and other liabilities	(972,134)	(1,193,727)
– <b>Total accounts payable</b>	<b>\$(1,235,516)</b>	<b>\$(1,586,319)</b>
<b>Net assets at market value</b>	<b>\$715,112,157</b>	<b>\$663,909,608</b>
<b>Net assets at actuarial value</b>	<b>\$714,967,069</b>	<b>\$677,876,651</b>
<b>Net assets at valuation value</b>	<b>\$714,967,069</b>	<b>\$671,244,999</b>

## Section 3: Supplemental Information

### Exhibit H: Development of the Plan through June 30, 2024

Year Ended June 30	Employer Contributions	Member Contributions	Net Investment Return <sup>1</sup>	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	\$15,164,044	\$4,651,960	\$12,142,037	\$30,049,133	\$444,217,356	\$432,679,307	97.4%
2016	19,129,191	5,544,925	(11,494,818)	31,058,643	426,338,011	451,044,882	105.8%
2017	19,116,426	5,753,907	65,583,775	32,765,402	484,026,717	480,079,636	99.2%
2018	20,430,644	5,996,462	44,129,810	34,153,672	520,429,961	510,023,422	98.0%
2019	23,702,064	6,544,192	18,725,703	36,674,901	532,727,019	532,691,627	100.0%
2020	24,647,132	6,820,687	13,572,162	38,777,787	538,989,213	556,717,438	103.3%
2021	26,333,815	7,053,907	165,141,008	41,076,641	696,441,302	605,389,707	86.9%
2022	30,485,006	8,185,773	(68,831,153)	44,346,543	621,934,385	643,850,234	103.5%
2023	30,309,355	8,492,670	48,627,731	45,454,533	663,909,608	677,876,651	102.1%
2024	32,095,794	8,423,567	59,478,357	48,795,169	715,112,157	714,967,069	100.0%

<sup>1</sup> On a market value basis, net of investment and administrative expenses.

## Section 3: Supplemental Information

### Exhibit I: Table of amortization bases

#### General

Base Type	Date Established: June 30	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment <sup>1</sup>
Combined base	2012	\$96,509,955	27	\$93,464,987	12 <sup>2</sup>	\$9,620,779
Experience loss	2013	1,308,206	18	881,443	7	143,706
Experience gain	2014	(10,922,004)	18	(7,952,052)	8	(1,152,711)
Change in assumptions/methods	2014	41,158,191	18	29,966,303	8	4,343,845
Experience gain	2015	(2,476,999)	18	(1,924,857)	9	(252,000)
Experience loss	2016	1,249,423	18	1,023,582	10	122,529
Experience gain	2017	(6,932,729)	18	(5,928,331)	11	(655,375)
Change in assumptions	2017	21,071,591	18	18,018,788	11	1,991,970
Experience loss	2018	5,742,836	18	5,096,117	12	524,567
Experience loss	2019	8,521,818	18	7,793,693	13	752,134
Experience loss	2020	8,846,883	18	8,290,135	14	754,468
Change in assumptions	2020	10,455,368	18	9,797,396	14	891,641
Experience gain	2021	(11,508,189)	18	(11,020,297)	15	(950,565)
Experience loss	2022	12,306,002	18	11,990,120	16	984,501
Experience loss	2023	4,964,608	18	4,902,884	17	384,687
Change in assumptions	2023	10,951,559	18	10,815,400	17	848,592
Experience loss	2024	140,465	18	140,465	18	10,567
<b>Subtotal</b>				<b>\$175,355,776</b>		<b>\$18,363,335</b>

<sup>1</sup> Calculated as a level percentage of payroll.

<sup>2</sup> On December 15, 2021, the Board adopted Scenario 2 as shown on page 110 of the June 30, 2021 valuation report. Under Scenario 2, the amortization period for the 2012 UAAL restart layer was reduced by 3 years, from 18 years remaining as of June 30, 2021 to 15 years (12 years as of June 30, 2024).

## Section 3: Supplemental Information

### Safety

Base Type	Date Established: June 30	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment <sup>1</sup>
Combined base	2012	\$24,941,466	27	\$24,154,541	12 <sup>2</sup>	\$2,486,337
Experience loss	2013	2,713,369	18	1,828,213	7	298,062
Experience gain	2014	(489,900)	18	(356,685)	8	(51,704)
Change in assumptions/methods	2014	13,983,439	18	10,181,011	8	1,475,815
Experience loss	2015	4,163,162	18	3,235,162	9	423,543
Experience loss	2016	1,209,820	18	991,136	10	118,645
Experience gain	2017	(1,978,056)	18	(1,691,479)	11	(186,992)
Change in assumptions	2017	5,932,121	18	5,072,689	11	560,784
Experience loss	2018	3,402,016	18	3,018,905	12	310,750
Experience gain	2019	(612,075)	18	(559,777)	13	(54,022)
Experience loss	2020	2,322,959	18	2,176,772	14	198,104
Change in assumptions	2020	4,684,408	18	4,389,611	14	399,490
Experience gain	2021	(4,509,695)	18	(4,318,505)	15	(372,496)
Experience loss	2022	6,647,794	18	6,477,152	16	531,835
Experience loss	2023	5,617,136	18	5,547,299	17	435,249
Change in assumptions	2023	7,337,447	18	7,246,221	17	568,549
Experience loss	2024	2,081,752	18	2,081,752	18	156,608
<b>Subtotal</b>				<b>\$69,474,018</b>		<b>\$7,298,557</b>

<sup>1</sup> Calculated as a level percentage of payroll.

<sup>2</sup> On December 15, 2021, the Board adopted Scenario 2 as shown on page 110 of the June 30, 2021 valuation report. Under Scenario 2, the amortization period for the 2012 UAAL restart layer was reduced by 3 years, from 18 years remaining as of June 30, 2021 to 15 years (12 years as of June 30, 2024).

## Section 3: Supplemental Information

### Probation

Base Type	Date Established: June 30	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment <sup>1</sup>
Combined base	2012	\$5,075,598	27	\$4,915,458	12 <sup>2</sup>	\$505,971
Experience gain	2013	(964,299)	18	(649,725)	7	(105,928)
Experience gain	2014	(834,449)	18	(607,542)	8	(88,068)
Change in assumptions/methods	2014	3,045,283	18	2,217,199	8	321,400
Experience gain	2015	(194,174)	18	(150,892)	9	(19,755)
Experience gain	2016	(39,275)	18	(32,175)	10	(3,852)
Experience gain	2017	(535,517)	18	(457,933)	11	(50,624)
Change in assumptions	2017	1,217,274	18	1,040,918	11	115,073
Experience gain	2018	(50,151)	18	(44,504)	12	(4,581)
Experience loss	2019	558,987	18	511,225	13	49,336
Experience gain	2020	(378,068)	18	(354,276)	14	(32,242)
Change in assumptions	2020	602,011	18	564,125	14	51,340
Experience gain	2021	(2,783,416)	18	(2,665,412)	15	(229,907)
Experience gain	2022	(622,015)	18	(606,049)	16	(49,762)
Experience gain	2023	(932,803)	18	(921,206)	17	(72,279)
Change in assumptions	2023	710,046	18	701,218	17	55,019
Experience loss	2024	25,443	18	25,443	18	1,914
<b>Subtotal</b>				<b>\$3,485,872</b>		<b>\$443,055</b>

<sup>1</sup> Calculated as a level percentage of payroll.

<sup>2</sup> On December 15, 2021, the Board adopted Scenario 2 as shown on page 110 of the June 30, 2021 valuation report. Under Scenario 2, the amortization period for the 2012 UAAL restart layer was reduced by 3 years, from 18 years remaining as of June 30, 2021 to 15 years (12 years as of June 30, 2024).

## Section 3: Supplemental Information

### Total Plan

Base Type	Date Established: June 30	Initial Amount	Initial Period	Outstanding Balance	Years Remaining	Annual Payment <sup>1</sup>
Combined base	2012	\$126,527,019	27	\$122,534,986	12 <sup>2</sup>	\$12,613,087
Experience loss	2013	3,057,276	18	2,059,931	7	335,840
Experience gain	2014	(12,246,353)	18	(8,916,279)	8	(1,292,483)
Change in assumptions/methods	2014	58,186,913	18	42,364,513	8	6,141,060
Experience loss	2015	1,491,989	18	1,159,413	9	151,788
Experience loss	2016	2,419,968	18	1,982,543	10	237,322
Experience gain	2017	(9,446,302)	18	(8,077,743)	11	(892,991)
Change in assumptions	2017	28,220,986	18	24,132,395	11	2,667,827
Experience loss	2018	9,094,701	18	8,070,518	12	830,736
Experience loss	2019	8,468,730	18	7,745,141	13	747,448
Experience loss	2020	10,791,774	18	10,112,631	14	920,330
Change in assumptions	2020	15,741,787	18	14,751,132	14	1,342,471
Experience gain	2021	(18,801,300)	18	(18,004,214)	15	(1,552,968)
Experience loss	2022	18,331,781	18	17,861,223	16	1,466,574
Experience loss	2023	9,648,941	18	9,528,977	17	747,657
Change in assumptions	2023	18,999,052	18	18,762,839	17	1,472,160
Experience loss	2024	2,247,660	18	2,247,660	18	169,089
<b>Total</b>				<b>\$248,315,666</b>		<b>\$26,104,947</b>

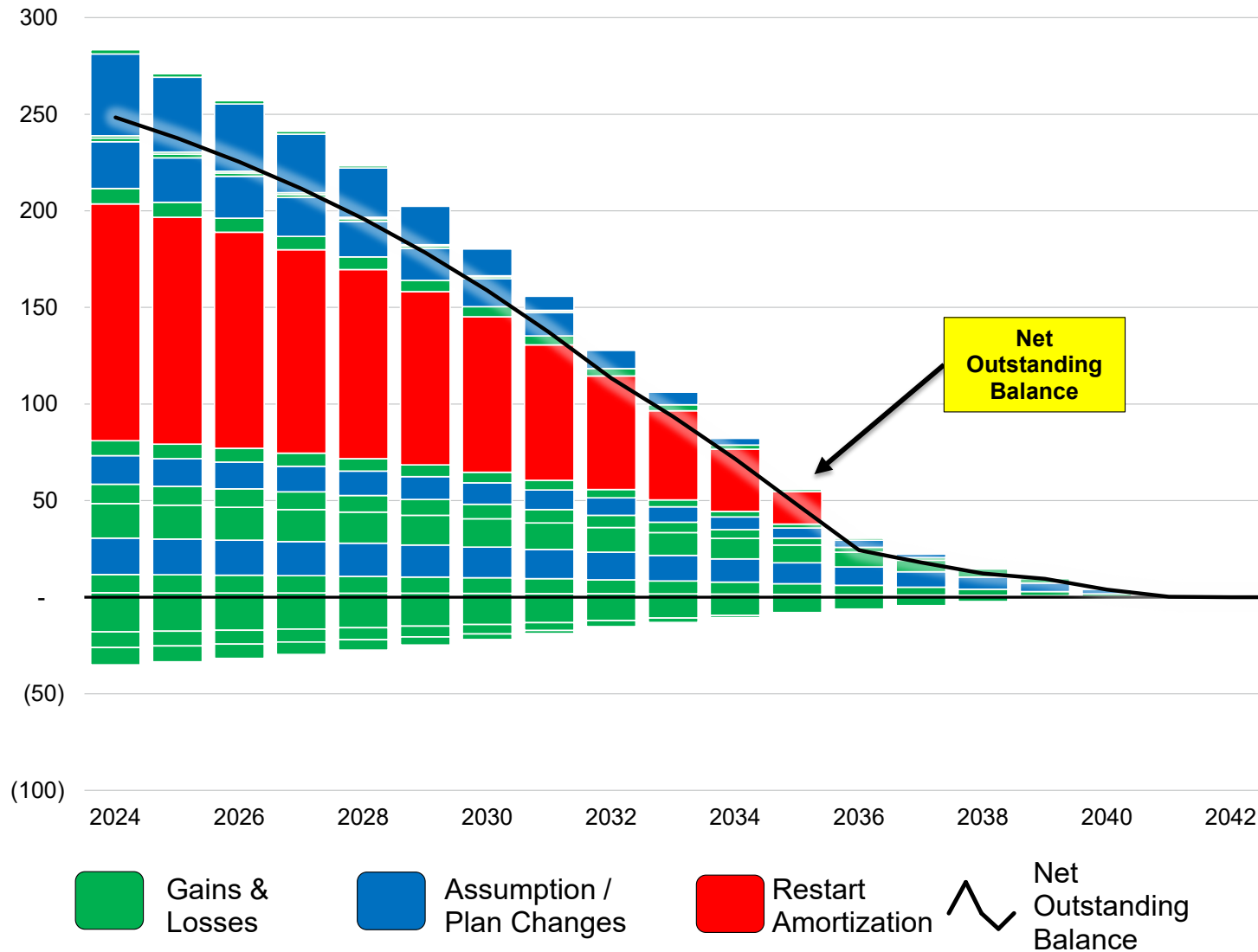
<sup>1</sup> Calculated as a level percentage of payroll.

<sup>2</sup> On December 15, 2021, the Board adopted Scenario 2 as shown on page 110 of the June 30, 2021 valuation report. Under Scenario 2, the amortization period for the 2012 UAAL restart layer was reduced by 3 years, from 18 years remaining as of June 30, 2021 to 15 years (12 years as of June 30, 2024).

## Section 3: Supplemental Information

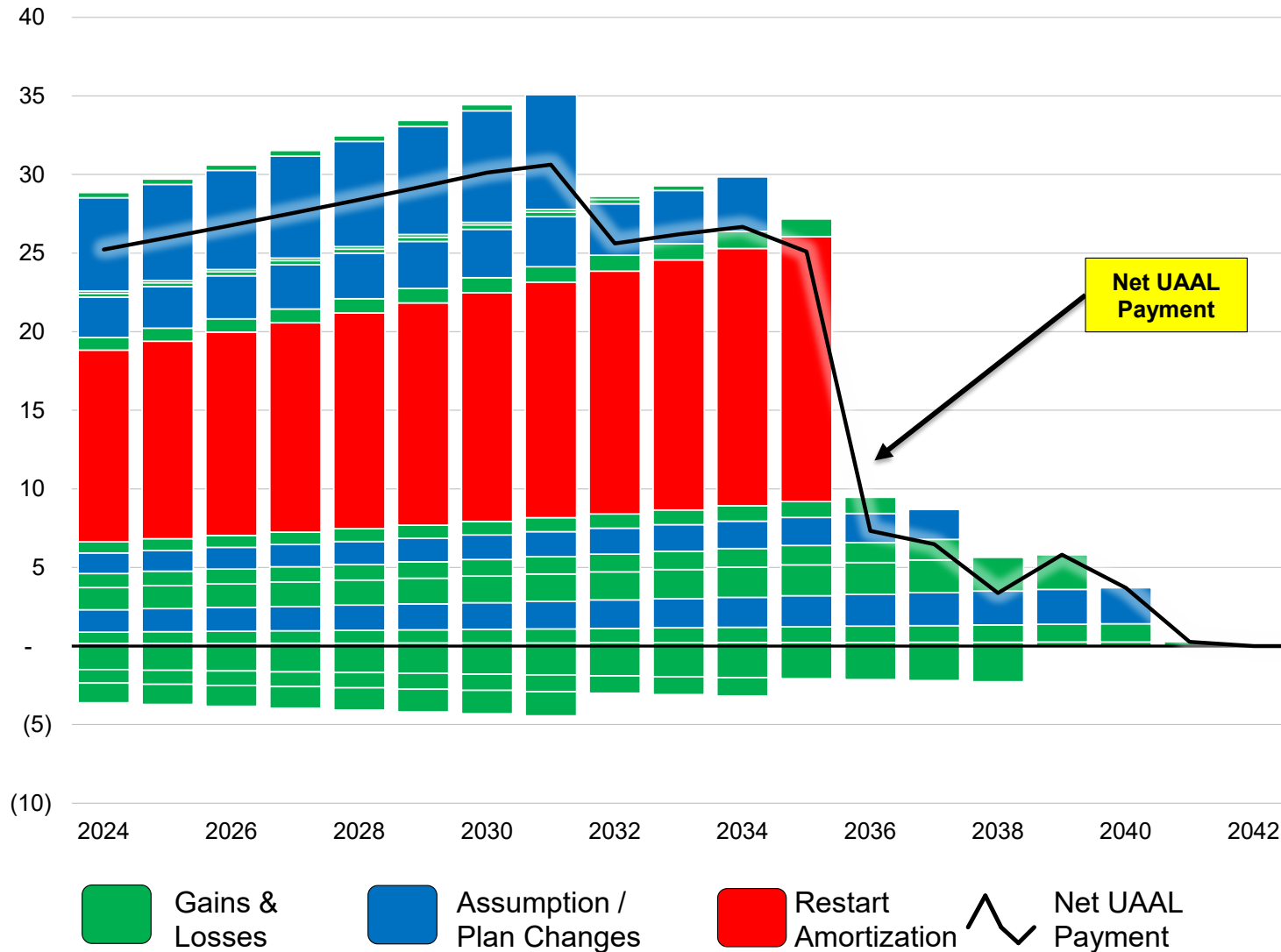
### Exhibit J: Projection of UAAL balances and payments

Outstanding Balance of \$248 Million in Net UAAL as of June 30, 2024  
 (\$ in Millions)



## Section 3: Supplemental Information

Annual Payments Required to Amortize \$248 Million in Net UAAL as of June 30, 2024  
 (\$ in Millions)



**Note:** As UAAL contributions would be expected to be un-level starting with the 2032 valuation, Segal would bring back some proposals to levelize these amounts for the Board to consider.

# Section 4: Actuarial Valuation Basis

## Exhibit 1: Actuarial assumptions and methods

### 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 July 1, 2019 through June 30, 2022 Actuarial Experience Study report dated May 11, 2023. Unless otherwise noted, all actuarial assumptions and methods shown below apply to all membership groups (i.e., General, Safety, and Probation) and tiers. These assumptions were adopted by the Board.

### Net investment return

6.50%; net of administrative and investment expenses.

Based on the Actuarial Experience Study referenced above, expected administrative and investment expenses represent about 0.30% of the Actuarial Value of Assets.

### Employee contribution crediting rate

2.50%, compounded semi-annually.

### Cost-of-Living Adjustment (COLA)

Retiree benefits for General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2 are assumed to increase at 2.75% per year (for non-CalPEPRA members with a sufficient COLA bank, withdrawals from the bank can be made to increase the retiree COLA up to 3% per year).

No COLA increases for General Tier 4, Safety Tier 3, and Probation Tier 3.

### Payroll growth

Inflation of 2.50% per year plus real “across the board” salary increases of 0.50% per year, used to amortize the Unfunded Actuarial Accrued Liability as a level percentage of payroll.

## 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 increases

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 increases based on years of service:

#### Merit and Promotion Increases (%)

Years of Service	General	Safety and Probation
Less than 1	5.00	5.25
1–2	4.75	5.00
2–3	4.50	4.50
3–4	4.25	3.25
4–5	3.50	3.00
5–6	2.75	2.25
6–7	2.25	2.00
7–8	1.75	1.50
8–9	1.50	1.25
9–10	1.00	1.25
10–11	1.00	1.25
11–12	1.00	1.25
12 and over	1.00	1.00

## 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 Mortality Tables (separate tables for males and females) with rates decreased by 5% for males and increased by 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

- **Safety and Probation members**

- Pub-2010 Safety Healthy Retiree Amount-Weighted Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.

#### Disabled

- **General members**

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

- **Safety and Probation members**

- Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Tables (separate tables for males and 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 Mortality Tables (separate tables for males and females) with rates decreased by 5% for males and increased by 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021.

## Section 4: Actuarial Valuation Basis

- **Beneficiaries currently in pay status**

- Pub-2010 Contingent Survivor Amount-Weighted Mortality Tables (separate tables for males and females) with rates increased by 5%, projected generationally with the two-dimensional mortality improvement scale MP-2021.

### Pre-retirement mortality rates

- **General members**

- Pub-2010 General Employee Amount-Weighted Mortality Tables (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021.

- **Safety and Probation members**

- Pub-2010 Safety Employee Amount-Weighted Mortality Tables (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 and Probation Male	Safety and Probation Female
25	0.03	0.01	0.04	0.02
30	0.04	0.02	0.04	0.03
35	0.05	0.02	0.05	0.04
40	0.07	0.04	0.06	0.05
45	0.10	0.06	0.08	0.07
50	0.15	0.08	0.12	0.09
55	0.22	0.12	0.18	0.12
60	0.32	0.19	0.26	0.17
65	0.47	0.30	0.41	0.23
70	0.70	0.49	0.77	0.45

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

All Safety and Probation pre-retirement deaths are assumed to be service connected deaths.

## Section 4: Actuarial Valuation Basis

### Mortality rates for member contributions

- **General members**
  - Pub-2010 General Healthy Retiree Amount-Weighted Mortality Tables (separate tables for males and females) with rates decreased by 5% for males and increased by 5% for females, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 30% male and 70% female.
- **Safety and Probation members**
  - Pub-2010 Safety Healthy Retiree Amount-Weighted Mortality Tables (separate tables for males and females), projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 80% male and 20% female.

### Disability

#### Disability Incidence Rates (%)

Age	General	Safety	Probation
20	0.01	0.10	0.10
25	0.01	0.13	0.13
30	0.01	0.18	0.18
35	0.02	0.98	0.98
40	0.13	1.68	1.68
45	0.26	1.80	1.80
50	0.42	2.37	2.37
55	0.50	2.75	2.75
60	0.56	3.20	3.20
65	0.60	0.00	0.00

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

95% of Safety and Probation disabilities are assumed to be service connected disabilities. The other 5% are assumed to be non-service-connected disabilities.

## Section 4: Actuarial Valuation Basis

### Termination

#### Termination Rates (%)

Years of Service	General	Safety	Probation
Less than 1	23.00	16.00	16.00
1–2	19.00	15.00	15.00
2–3	14.00	14.00	14.00
3–4	12.00	13.00	13.00
4–5	9.00	12.00	12.00
5–6	8.00	7.00	7.00
6–7	7.00	6.00	6.00
7–8	7.00	5.00	5.00
8–9	7.00	5.00	5.00
9–10	6.50	4.00	4.00
10–11	6.50	2.50	2.50
11–12	6.50	2.50	2.50
12–13	6.50	2.50	2.50
13–14	6.50	2.50	2.50
14–15	6.50	2.00	2.00
15–16	6.50	2.00	2.00
16–17	6.50	1.50	1.50
17–18	6.50	1.50	1.50
18–19	6.50	1.50	1.50
19–20	6.50	1.50	1.50
20 and over	6.50	1.50	1.50

90% of all terminated members with less than five years of service are assumed to choose a refund of contributions. The other 10% are assumed to choose a deferred vested benefit.

20% of all terminated members with five or more years of service are assumed to choose a refund of contributions. The other 80% are assumed to choose a deferred vested benefit.

No termination is assumed after a member is eligible for retirement (as long as a retirement rate is present).

## Section 4: Actuarial Valuation Basis

### Retirement rates

#### Retirement Rates (%) – General

Age	Tiers 1, 2, and 3: Less than 30 Years of Service	Tiers 1, 2, and 3: 30 or More Years of Service	Tier 4
50	5.00	5.00	0.00
51	5.00	5.00	0.00
52	5.00	5.00	6.00
53	5.00	5.00	3.00
54	5.00	5.00	3.00
55	5.00	5.00	5.00
56	5.00	5.00	5.00
57	10.00	15.00	6.00
58	10.00	15.00	6.00
59	10.00	15.00	6.00
60	12.00	25.00	6.00
61	14.00	25.00	10.00
62	22.00	35.00	12.00
63	20.00	25.00	14.00
64	20.00	25.00	12.00
65	40.00	45.00	30.00
66	40.00	45.00	30.00
67	40.00	45.00	30.00
68	40.00	45.00	30.00
69	40.00	45.00	30.00
70	50.00	50.00	50.00
71	50.00	50.00	50.00
72	50.00	50.00	50.00
73	50.00	50.00	50.00
74	50.00	50.00	50.00
75	100.00	100.00	100.00

The retirement rates only apply to members who are eligible to retire at the age shown.

## Section 4: Actuarial Valuation Basis

### Retirement Rates (%) – Safety and Probation

Age	Safety Tiers 1 and 2: Less than 25 Years of Service	Safety Tiers 1 and 2: 25 or More Years of Service	Safety Tier 3	Probation Tiers 1 and 2	Probation Tier 3
50	6.00	15.00	3.00	5.00	4.00
51	6.00	15.00	3.00	5.00	4.00
52	6.00	15.00	3.00	5.00	4.00
53	8.00	20.00	3.00	5.00	4.00
54	12.00	30.00	4.00	5.00	4.00
55	15.00	35.00	6.00	20.00	12.00
56	20.00	45.00	12.00	20.00	21.00
57	25.00	45.00	15.00	20.00	21.00
58	30.00	45.00	18.00	20.00	21.00
59	40.00	45.00	40.00	20.00	21.00
60	50.00	50.00	50.00	50.00	50.00
61	50.00	50.00	50.00	50.00	50.00
62	50.00	50.00	50.00	50.00	50.00
63	50.00	50.00	50.00	50.00	50.00
64	50.00	50.00	50.00	50.00	50.00
65	100.00	100.00	100.00	100.00	100.00

The retirement rates only apply to members who are eligible to retire at the age shown.

### Retirement age and benefit for deferred vested members

For current and future deferred vested members, retirement age assumptions are as follows:

- General retirement age: 61
- Safety and Probation retirement age: 54

Deferred vested members who terminate with less than five years of service and are not vested are assumed to retire at age 70 if they decide to leave their contributions on deposit.

65% of future deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 4.00% compensation increases are assumed per annum.

## Section 4: Actuarial Valuation Basis

### **Future benefit accruals**

1.0 year of service per year of employment, plus 0.017 years of additional service to anticipate conversion of unused sick leave for each year of employment, for members expected to retire directly from active employment and to receive a service retirement benefit.

### **Unknown data for members**

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

### **Inclusion of deferred vested members**

All deferred vested members are included in the valuation.

### **Form of payment**

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

### **Percent married**

For all active and inactive members, 70% of male members and 50% of female members are assumed to be married at pre-retirement death or retirement.

### **Age and gender of spouse**

For all active and inactive members, male members are assumed to have a female spouse who is 2 years younger than the member and female members are assumed to have a male spouse who is 2 years older than the member.

### **Actuarial cost method**

Entry age actuarial cost method. Entry age is the age on the valuation date minus years of service rounded down. 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 (i.e., “replacement life within a tier”).

## Section 4: Actuarial Valuation Basis

### Actuarial value of assets

Market value of assets (MVA) less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return adjusted for investment expenses only<sup>1</sup> and the expected return on the valuation value and is recognized over a five-year period. The actuarial value of assets (AVA) is limited by a 25% corridor; the AVA cannot be less than 75% of MVA, nor greater than 125% of MVA.

### Valuation value of assets

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

### Amortization policy

Prior to July 1, 2012, the total UAAL was amortized on a 30-year decreasing period, with 27 years remaining as of June 30, 2012. On December 15, 2021, the Board reduced the amortization period for the 2012 UAAL restart layer by 3 years, from 18 years remaining as of June 30, 2021 to 15 years (12 years as of June 30, 2024).

On or after July 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 18-year periods; and experience gains/losses are also amortized over separate decreasing 18-year periods.

### Employer contributions

The recommended employer contributions are provided in *Section 2, Subsection F*. The minimum amounts required from each employer to amortize their UAAL are also provided in *Section 2, Subsection F*.

Employer contributions 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 earnings rate. The contribution rate is expressed as a level percentage of the member's compensation.

<sup>1</sup> Based on past practice, administrative expenses are included with benefit payments and are not subject to five-year asset smoothing.

## Section 4: Actuarial Valuation Basis

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

Also, under the Board's funding policy adopted on April 17, 2013, in addition to the UAAL contribution rate, an amortization amount equal to the UAAL contribution rate times the covered payroll (as estimated in the actuarial valuation that establishes such UAAL contribution rate) will be calculated for each employer. The final UAAL payment by each employer will be equal to the UAAL contribution rate times the actual covered payroll or the above amortization amount, if greater. This means that UAAL contribution amounts will be equal to the greater of the UAAL contribution rates developed in Section 2, Subsection F of this valuation times the actual fiscal year 2025/2026 payroll, or the estimated UAAL annual contribution amounts also provided in Section 2, Subsection F of this valuation. To facilitate the calculation of the minimum UAAL dollar contribution amount, we have provided in Section 2, Subsection F a breakdown of the estimated UAAL annual contribution amounts by employer (i.e., County of Mendocino, Mendocino County Superior Court, and Russian River Cemetery District).

On June 19, 2013, the Board adopted an additional change to the actuarial funding policy to anticipate the contribution rate impact that would result from the lag between the date of the actuarial valuation and the date of the contribution rate implementation. In general, the contribution rates determined in an actuarial valuation will apply to the fiscal year beginning 12 months after the valuation date. In compliance with the change in the funding policy, the employer contribution rates developed in this valuation have been adjusted to anticipate the delay in implementing the change in the employer contribution rates determined as of June 30, 2024 for the fiscal year 2025/2026. This adjustment is reflected in the UAAL portion of the June 30, 2024 employer rates.

### Member contributions

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

Accumulation for all members includes semi-annual crediting of interest at 2.5% per year, as specified in the Board's Interest Crediting Policy.

## Section 4: Actuarial Valuation Basis

### General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2

Articles 6 and 6.8 of the 1937 Act define the methodology to be used in the calculation of member basic contribution rates for General Tier 1-3 members and for Safety and Probation Tier 1-2 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 1/100 of Final Average Salary. That age is 60 for General members and 50 for Safety and Probation members. It is assumed that contributions are made annually at the same rate, starting at entry age. In addition to the basic contributions, members with less than 30 years of service pay one-half of the total<sup>1</sup> normal cost necessary to fund cost-of-living benefits. Following practices established by the Association's previous actuary prior to the June 30, 2011 valuation, we have also included a 1.63% of pay offset to the Safety member rates, which is picked up by the County. No other subsidies have been reflected in the member contribution rates.

### General Tier 4, Safety Tier 3, and Probation Tier 3

Pursuant to Section 7522.30(a) of the Government Code, General Tier 4, Safety Tier 3, and Probation Tier 3 members are required to contribute at least 50% of the Normal Cost rate. In addition, there are certain additional requirements that would have to be met such as requiring the new employees to pay the contribution rate of "similarly situated employees", if it is greater. (reference: Section 7522.30(c)). 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 new members and we have taken into account in this valuation only the requirements of Section 7522.30(c), but not 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.

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

<sup>1</sup> Total normal cost has been calculated for all members, including those with over 30 years of service. This has been discussed with the Board in 2024.

## Section 4: Actuarial Valuation Basis

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.

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

### Models

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

### Justification for change in actuarial assumptions, methods or models

On November 15, 2023, the Board adopted an Interest Crediting Policy with an Employee Crediting Rate of 2.5% per year, credited semiannually. The results of this valuation reflect a change in the interest rate we use to project members' contribution accounts to align with the Interest Crediting Policy. Previously, that interest rate was as follows:

#### Employee contribution crediting rate

6.50%, compounded semi-annually.

Also, starting with the June 30, 2024 valuation, the Contingency Reserve has been eliminated and the balance previously in that reserve of \$6.6 million has been transferred to the valuation reserves.

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

#### Plan year

July 1 through June 30

#### Membership eligibility

Membership with MCERA usually begins with the first day of the pay period following the date of entrance into service.

Membership Tier	Membership Tier Plan Provision
General Tier 1	All General members appointed to a permanent position of four-fifths time, or more, in service of the County of Mendocino or in the service of a participating District, who were hired prior to July 1, 1984.
General Tier 2	General Tier 2 has been replaced by General Tier 3.
General Tier 3	All General members appointed to a permanent position of four-fifths time, or more, in service of the County of Mendocino or in the service of a participating District, who were hired on or after July 1, 1984 and prior to January 1, 2013.
General Tier 4	All General members appointed to a permanent position of four-fifths time, or more, in service of the County of Mendocino or in the service of a participating District, who were hired on or after January 1, 2013.
Safety Tier 1	All employees appointed to a position in active law enforcement who were hired prior to June 1, 1982.
Safety Tier 2	All employees appointed to a position in active law enforcement who were hired on or after June 1, 1982 and prior to January 1, 2013.
Safety Tier 3	All employees appointed to a position in active law enforcement who were hired on or after January 1, 2013.
Probation Tier 1	All employees appointed to positions with specific job classifications within the Departments of Probation, Juvenile Hall, and Social Services who were hired prior to July 1, 1984.
Probation Tier 2	All employees appointed to positions with specific job classifications within the Departments of Probation, Juvenile Hall, and Social Services who were hired on or after July 1, 1984 and prior to January 1, 2013.
Probation Tier 3	All employees appointed to positions with specific job classifications within the Departments of Probation, Juvenile Hall, and Social Services who were hired on or after January 1, 2013.

## Section 4: Actuarial Valuation Basis

### Final compensation and service for benefit determination

Provision by Tier	Final Compensation and Service Plan Provision
<b>Final compensation</b>	
General Tier 1, Safety Tier 1, and Probation Tier 1	Highest consecutive twelve months of compensation earnable (§31462.1) (FAS1).
General Tiers 2 and 3, Safety Tier 2, and Probation Tier 2	Highest consecutive thirty-six months of compensation earnable (§31462) (FAS3).
General Tier 4, Safety Tier 3, and Probation Tier 3	Highest consecutive thirty-six months of pensionable compensation (§7522.10(c), §7522.32, §7522.34) (FAS3).
<b>Compensation limit</b>	
General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2	For members with membership dates on or after July 1, 1996, compensation earnable is limited by Internal Revenue Code Section 401(a)(17). The limit for 2024 is \$345,000. The limit is indexed for inflation on an annual basis.
General Tier 4, Safety Tier 3, and Probation Tier 3	Pensionable compensation is limited to \$151,446 for 2024 for an employer that is enrolled in Social Security. For an employer that is not enrolled in Social Security, the maximum amount for 2024 is 120% of \$151,446, or \$181,734. (reference: Section 7522.10) These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2024. (reference: Section 7522.10(d))
<b>Service</b>	
All members	Years of service (Yrs) is based on the number of pay periods in which contributions are received (1 year of service equals 26 biweekly pay periods).

## Section 4: Actuarial Valuation Basis

### Service retirement benefits

Provision by Tier	Service Retirement Plan Provision
<b>Eligibility</b>	
General Tiers 1, 2, and 3	Age 50 with 5 years of service and 10 years of membership, or age 70, or after 30 years of service regardless of age (§31672).
General Tier 4	Age 52 with 5 years of service, or age 70 (§7522.20(a)).
Safety and Probation Tiers 1 and 2	Age 50 with 5 years of service and 10 years of membership, or age 70, or after 20 years of service regardless of age (§31663.25).
Safety and Probation Tier 3	Age 50 with 5 years of service, or age 70 (§7522.25(d)).
<b>Benefit amount</b>	
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.
<b>Maximum benefit</b>	
General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2	100% of Highest Average Compensation (§31676.12, §31664.2, and §31664).
General Tier 4, Safety Tier 3, and Probation Tier 3	None (§7522.20(a) and §7522.25(d)).

## Section 4: Actuarial Valuation Basis

### Service retirement benefit formula

Tier and Retirement Age	Service Retirement Benefit Formula by Tier
<b>General Tier 1 (§31676.12)<sup>1</sup></b>	
Age 50	$(1.34\% \times \text{FAS1} - 1/3 \times 1.34\% \times \$350 \times 12) \times \text{Yrs}$
Age 55	$(1.77\% \times \text{FAS1} - 1/3 \times 1.77\% \times \$350 \times 12) \times \text{Yrs}$
Age 60	$(2.34\% \times \text{FAS1} - 1/3 \times 2.34\% \times \$350 \times 12) \times \text{Yrs}$
Age 62 and over	$(2.62\% \times \text{FAS1} - 1/3 \times 2.62\% \times \$350 \times 12) \times \text{Yrs}$
<b>General Tier 2 and General Tier 3 (§31676.12)<sup>1</sup></b>	
Age 50	$(1.34\% \times \text{FAS3} - 1/3 \times 1.34\% \times \$350 \times 12) \times \text{Yrs}$
Age 55	$(1.77\% \times \text{FAS3} - 1/3 \times 1.77\% \times \$350 \times 12) \times \text{Yrs}$
Age 60	$(2.34\% \times \text{FAS3} - 1/3 \times 2.34\% \times \$350 \times 12) \times \text{Yrs}$
Age 62 and over	$(2.62\% \times \text{FAS3} - 1/3 \times 2.62\% \times \$350 \times 12) \times \text{Yrs}$
<b>General Tier 4 (§7522.20(a))</b>	
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	$2.50\% \times \text{FAS3} \times \text{Yrs}$
<b>Safety Tier 1 (§31664.2)</b>	
Age 50	$(2.29\% \times \text{FAS1} - 1/3 \times 2.29\% \times \$350 \times 12) \times \text{Yrs}$
Age 55 and over	$(3.00\% \times \text{FAS1} - 1/3 \times 3.00\% \times \$350 \times 12) \times \text{Yrs}$

<sup>1</sup> For members in Bargaining Groups 01 and 101 who have service prior to October 1, 2003 and who have not purchased this service to be covered under Section 31676.12, their prior service will be covered under Section 31676.11 for Tier 1 and Tier 2 and Section 31676.1 for Tier 3. For all other Bargaining Groups, the prior service date is January 1, 2002 (instead of October 1, 2003).

## Section 4: Actuarial Valuation Basis

Tier and Retirement Age	Service Retirement Benefit Formula by Tier
<b>Safety Tier 2 (§31664.2)</b>	
Age 50	$(2.29\% \times \text{FAS3} - 1/3 \times 2.29\% \times \$350 \times 12) \times \text{Yrs}$
Age 55 and over	$(3.00\% \times \text{FAS3} - 1/3 \times 3.00\% \times \$350 \times 12) \times \text{Yrs}$
<b>Safety Tier 3 (§7522.25(d))</b>	
Age 50	$2.00\% \times \text{FAS3} \times \text{Yrs}$
Age 55	$2.50\% \times \text{FAS3} \times \text{Yrs}$
Age 57 and over	$2.70\% \times \text{FAS3} \times \text{Yrs}$
<b>Probation Tier 1 (§31664)</b>	
Age 50	$(2.00\% \times \text{FAS1} - 1/3 \times 2.00\% \times \$350 \times 12) \times \text{Yrs}$
Age 55 and over	$(2.62\% \times \text{FAS1} - 1/3 \times 2.62\% \times \$350 \times 12) \times \text{Yrs}$
<b>Probation Tier 2 (§31664)</b>	
Age 50	$(2.00\% \times \text{FAS3} - 1/3 \times 2.00\% \times \$350 \times 12) \times \text{Yrs}$
Age 55 and over	$(2.62\% \times \text{FAS3} - 1/3 \times 2.62\% \times \$350 \times 12) \times \text{Yrs}$
<b>Probation Tier 3 (§7522.25(d))</b>	
Age 50	$2.00\% \times \text{FAS3} \times \text{Yrs}$
Age 55	$2.50\% \times \text{FAS3} \times \text{Yrs}$
Age 57 and over	$2.70\% \times \text{FAS3} \times \text{Yrs}$

## Section 4: Actuarial Valuation Basis

### Disability benefits

#### Non-service connected disability

Provision by Tier	Non-Service Connected Disability Plan Provision
<b>Eligibility</b>	
All members	Five years of service (§31720).
<b>Benefit amount</b>	
General members	1.8% of Final Compensation per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 62, but the total benefit cannot be more than one-third of Final Compensation (§31727.1).
Safety and Probation members	1.8% of Final Compensation per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to age 55, but the total benefit cannot be more than one-third of Final Compensation (§31727.2).

#### Service connected disability

Provision by Tier	Service Connected Disability Plan Provision
<b>Eligibility</b>	
All members	No age or service requirements (§31720).
<b>Benefit amount</b>	
All members	50% of the Final Compensation or 100% of Service Retirement benefit, if greater (§31727.4).

## Section 4: Actuarial Valuation Basis

### Pre-retirement death benefits

#### Basic death benefit

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

#### Service connected death benefit

Provision by Tier	Pre-Retirement Service Connected Death Benefit Plan Provision
<b>Eligibility</b>	
All members	No age or service requirements.
<b>Benefit amount</b>	
All members	50% of Final Compensation or 100% of Service Retirement benefit, if greater, payable to spouse <sup>1</sup> or minor children (§31787).

<sup>1</sup> In this summary, the continuance benefit payable to the spouse is also available to the eligible domestic partner.

## Section 4: Actuarial Valuation Basis

### Post-retirement death benefits

#### Lump sum death benefit

\$1,000 lump sum death benefit paid to the estate or designated beneficiary (§31789, §31789.13).

#### Service retirement or non-service connected disability retirement

Unless another option was selected at retirement, 60% of member's unmodified allowance continues to eligible spouse (§31760.1).<sup>1</sup>  
An eligible spouse is a surviving spouse who was married to the member at least one year prior to the date of retirement (§31760.1).

#### Service connected disability retirement

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

### Withdrawal benefits

#### Less than five years of service

Refund of accumulated employee contributions with interest (§31628).

#### Five or more years of service

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

<sup>1</sup> 100% of the COLA benefit is continued to the survivor upon the member's death for a member who retired prior to September 17, 2014 for service or non-service connected disability and chose the unmodified option at retirement.

## Section 4: Actuarial Valuation Basis

### Post-retirement cost-of-living benefits

Provision by Tier	Post-Retirement Cost-of-Living Benefit Plan Provision
General Tiers 1, 2, and 3, Safety Tiers 1 and 2, and Probation Tiers 1 and 2	Annual adjustment based on Consumer Price Index to a maximum of 3% per year; excess “banked” (\$31870.1).
General Tier 4, Safety Tier 3, and Probation Tier 3	None.

### Member contributions

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

Provision by Tier	Member Contribution Plan Provision
<b>General Tier 1</b>	
Basic Contributions	Entry-age based rates that provide for an annuity at age 60 equal to 1/100 of FAS1 (\$31621.2).
Cost-of-Living Contributions	Entry-age based rates that provide for one-half of future Cost-of-Living costs.
<b>General Tier 2 and General Tier 3</b>	
Basic Contributions	Entry-age based rates that provide for an annuity at age 60 equal to 1/100 of FAS3 (\$31621.2).
Cost-of-Living Contributions	Entry-age based rates that provide for one-half of future Cost-of-Living costs.
<b>General Tier 4</b>	
Contributions	50% of the total normal cost rate.
<b>Safety Tier 1 and Probation Tier 1</b>	
Basic Contributions	Entry-age based rates that provide for an annuity at age 50 equal to 1/100 of FAS1 (\$31639.25).
Cost-of-Living Contributions	Entry-age based rates that provide for one-half of future Cost-of-Living costs. Safety Tier 1 Cost-of-Living member rates are offset by 1.63% of pay, which is picked up by the County.
<b>Safety Tier 2 and Probation Tier 2</b>	
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	Entry-age based rates that provide for one-half of future Cost-of-Living costs. Safety Tier 2 Cost-of-Living member rates are offset by 1.63% of pay, which is picked up by the County.
<b>Safety Tier 3 and Probation Tier 3</b>	
Contributions	50% of the total normal cost rate.

## Section 4: Actuarial Valuation Basis

### **Other information**

All non-CalPEPRA members with 30 or more years of service are exempt from paying member contributions.

### **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

General Tier 1 Members' Contribution Rates Based on the June 30, 2024 Actuarial Valuation<sup>1</sup>  
(as a % of biweekly payroll)

Entry Age	Basic First \$161.54	Basic Over \$161.54	COLA First \$161.54	COLA Over \$161.54	Total First \$161.54	Total Over \$161.54
15	4.76%	7.14%	1.78%	2.67%	6.54%	9.81%
16	4.76%	7.14%	1.78%	2.67%	6.54%	9.81%
17	4.83%	7.24%	1.80%	2.70%	6.63%	9.94%
18	4.89%	7.34%	1.83%	2.74%	6.72%	10.08%
19	4.97%	7.45%	1.85%	2.78%	6.82%	10.23%
20	5.03%	7.55%	1.88%	2.82%	6.91%	10.37%
21	5.11%	7.66%	1.91%	2.86%	7.02%	10.52%
22	5.18%	7.77%	1.93%	2.90%	7.11%	10.67%
23	5.25%	7.88%	1.96%	2.94%	7.21%	10.82%
24	5.33%	7.99%	1.99%	2.98%	7.32%	10.97%
25	5.40%	8.10%	2.01%	3.02%	7.41%	11.12%
26	5.48%	8.22%	2.05%	3.07%	7.53%	11.29%
27	5.55%	8.33%	2.07%	3.11%	7.62%	11.44%
28	5.63%	8.45%	2.11%	3.16%	7.74%	11.61%
29	5.71%	8.57%	2.13%	3.20%	7.84%	11.77%
30	5.79%	8.69%	2.16%	3.24%	7.95%	11.93%
31	5.87%	8.81%	2.19%	3.29%	8.06%	12.10%
32	5.96%	8.94%	2.23%	3.34%	8.19%	12.28%
33	6.04%	9.06%	2.25%	3.38%	8.29%	12.44%
34	6.13%	9.19%	2.29%	3.43%	8.42%	12.62%
35	6.21%	9.32%	2.32%	3.48%	8.53%	12.80%
36	6.31%	9.46%	2.35%	3.53%	8.66%	12.99%
37	6.39%	9.59%	2.39%	3.58%	8.78%	13.17%
38	6.49%	9.73%	2.42%	3.63%	8.91%	13.36%

<sup>1</sup> Provided for informational purposes only, as the one General Tier 1 member in the June 30, 2024 valuation data had more than 30 years of service and is exempt from paying member contributions.

## Section 4: Actuarial Valuation Basis

Entry Age	Basic First \$161.54	Basic Over \$161.54	COLA First \$161.54	COLA Over \$161.54	Total First \$161.54	Total Over \$161.54
39	6.58%	9.87%	2.46%	3.69%	9.04%	13.56%
40	6.67%	10.01%	2.49%	3.74%	9.16%	13.75%
41	6.77%	10.16%	2.53%	3.79%	9.30%	13.95%
42	6.87%	10.31%	2.57%	3.85%	9.44%	14.16%
43	6.97%	10.46%	2.61%	3.91%	9.58%	14.37%
44	7.08%	10.62%	2.65%	3.97%	9.73%	14.59%
45	7.19%	10.79%	2.69%	4.03%	9.88%	14.82%
46	7.31%	10.96%	2.73%	4.09%	10.04%	15.05%
47	7.43%	11.14%	2.77%	4.16%	10.20%	15.30%
48	7.55%	11.33%	2.82%	4.23%	10.37%	15.56%
49	7.69%	11.53%	2.87%	4.31%	10.56%	15.84%
50	7.83%	11.75%	2.93%	4.39%	10.76%	16.14%
51	7.95%	11.93%	2.97%	4.45%	10.92%	16.38%
52	8.07%	12.10%	3.01%	4.52%	11.08%	16.62%
53	8.16%	12.24%	3.05%	4.57%	11.21%	16.81%
54	8.23%	12.34%	3.07%	4.61%	11.30%	16.95%
55	8.25%	12.38%	3.08%	4.62%	11.33%	17.00%
56	8.23%	12.35%	3.07%	4.61%	11.30%	16.96%
57	8.20%	12.30%	3.06%	4.59%	11.26%	16.89%
58	8.15%	12.23%	3.05%	4.57%	11.20%	16.80%
59 and over	8.10%	12.15%	3.03%	4.54%	11.13%	16.69%

Interest: 6.50% per annum

COLA: 2.75%

Mortality: See Section 4, Exhibit 1

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

COLA Loading Factor: 37.34%

Note: The above rates are provided for informational purposes only, as the one General Tier 1 member in the June 30, 2024 valuation data had more than 30 years of service and is exempt from paying member contributions.

## Section 4: Actuarial Valuation Basis

### General Tier 2 and Tier 3 Members' Contribution Rates Based on the June 30, 2024 Actuarial Valuation (as a % of biweekly payroll)

Entry Age	Basic First \$161.54	Basic Over \$161.54	COLA First \$161.54	COLA Over \$161.54	Total First \$161.54	Total Over \$161.54
15	4.58%	6.87%	1.71%	2.57%	6.29%	9.44%
16	4.58%	6.87%	1.71%	2.57%	6.29%	9.44%
17	4.64%	6.96%	1.73%	2.60%	6.37%	9.56%
18	4.71%	7.06%	1.76%	2.64%	6.47%	9.70%
19	4.78%	7.17%	1.79%	2.68%	6.57%	9.85%
20	4.85%	7.27%	1.81%	2.71%	6.66%	9.98%
21	4.91%	7.37%	1.83%	2.75%	6.74%	10.12%
22	4.98%	7.47%	1.86%	2.79%	6.84%	10.26%
23	5.05%	7.58%	1.89%	2.83%	6.94%	10.41%
24	5.13%	7.69%	1.91%	2.87%	7.04%	10.56%
25	5.20%	7.80%	1.94%	2.91%	7.14%	10.71%
26	5.27%	7.91%	1.97%	2.95%	7.24%	10.86%
27	5.35%	8.02%	1.99%	2.99%	7.34%	11.01%
28	5.42%	8.13%	2.03%	3.04%	7.45%	11.17%
29	5.50%	8.25%	2.05%	3.08%	7.55%	11.33%
30	5.57%	8.36%	2.08%	3.12%	7.65%	11.48%
31	5.65%	8.48%	2.11%	3.17%	7.76%	11.65%
32	5.73%	8.60%	2.14%	3.21%	7.87%	11.81%
33	5.81%	8.72%	2.17%	3.26%	7.98%	11.98%
34	5.89%	8.84%	2.20%	3.30%	8.09%	12.14%
35	5.98%	8.97%	2.23%	3.35%	8.21%	12.32%
36	6.07%	9.10%	2.27%	3.40%	8.34%	12.50%
37	6.15%	9.23%	2.30%	3.45%	8.45%	12.68%
38	6.24%	9.36%	2.33%	3.50%	8.57%	12.86%
39	6.33%	9.49%	2.36%	3.54%	8.69%	13.03%
40	6.42%	9.63%	2.40%	3.60%	8.82%	13.23%
41	6.51%	9.77%	2.43%	3.65%	8.94%	13.42%

## Section 4: Actuarial Valuation Basis

Entry Age	Basic First \$161.54	Basic Over \$161.54	COLA First \$161.54	COLA Over \$161.54	Total First \$161.54	Total Over \$161.54
42	6.61%	9.92%	2.47%	3.70%	9.08%	13.62%
43	6.71%	10.07%	2.51%	3.76%	9.22%	13.83%
44	6.81%	10.22%	2.55%	3.82%	9.36%	14.04%
45	6.92%	10.38%	2.59%	3.88%	9.51%	14.26%
46	7.03%	10.54%	2.63%	3.94%	9.66%	14.48%
47	7.15%	10.72%	2.67%	4.00%	9.82%	14.72%
48	7.27%	10.90%	2.71%	4.07%	9.98%	14.97%
49	7.38%	11.07%	2.75%	4.13%	10.13%	15.20%
50	7.49%	11.24%	2.80%	4.20%	10.29%	15.44%
51	7.59%	11.38%	2.83%	4.25%	10.42%	15.63%
52	7.66%	11.49%	2.86%	4.29%	10.52%	15.78%
53	7.71%	11.56%	2.88%	4.32%	10.59%	15.88%
54	7.71%	11.57%	2.88%	4.32%	10.59%	15.89%
55	7.70%	11.55%	2.87%	4.31%	10.57%	15.86%
56	7.67%	11.50%	2.86%	4.29%	10.53%	15.79%
57	7.62%	11.43%	2.85%	4.27%	10.47%	15.70%
58	7.85%	11.78%	2.93%	4.40%	10.78%	16.18%
59 and over	8.10%	12.15%	3.03%	4.54%	11.13%	16.69%

Interest: 6.50% per annum

COLA: 2.75%

Mortality: See *Section 4, Exhibit 1*

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

COLA Loading Factor: 37.34%

## Section 4: Actuarial Valuation Basis

### General Tier 4 Members' Contribution Rate Based on the June 30, 2024 Actuarial Valuation (as a % of eligible payroll)<sup>1</sup>

	<b>Entry Age</b>	<b>Basic</b>	<b>Total</b>
	All Ages	8.86%	8.86%
Interest:	6.50% per annum		
COLA:	0%		
Mortality:	See <i>Section 4, Exhibit 1</i>		
Salary Increase:	Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit/Promotion (See <i>Section 4, Exhibit 1</i> )		
COLA Loading Factor:	0%		

<sup>1</sup> 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 equal to \$151,446. (For an employer that is not enrolled in Social Security, the maximum amount is 120% of \$151,446, or \$181,734). (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2024. (reference: Section 7522.10(d))

## Section 4: Actuarial Valuation Basis

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

Entry Age	Basic First \$161.54	Basic Over \$161.54	COLA <sup>1</sup> First \$161.54	COLA <sup>1</sup> Over \$161.54	Total First \$161.54	Total Over \$161.54
15	5.76%	8.64%	1.86%	3.61%	7.62%	12.25%
16	5.76%	8.64%	1.86%	3.61%	7.62%	12.25%
17	5.84%	8.76%	1.91%	3.68%	7.75%	12.44%
18	5.92%	8.88%	1.96%	3.76%	7.88%	12.64%
19	6.00%	9.00%	2.01%	3.83%	8.01%	12.83%
20	6.09%	9.13%	2.06%	3.91%	8.15%	13.04%
21	6.17%	9.26%	2.11%	3.99%	8.28%	13.25%
22	6.26%	9.39%	2.17%	4.07%	8.43%	13.46%
23	6.35%	9.52%	2.22%	4.14%	8.57%	13.66%
24	6.44%	9.66%	2.28%	4.23%	8.72%	13.89%
25	6.53%	9.79%	2.33%	4.31%	8.86%	14.10%
26	6.62%	9.93%	2.39%	4.39%	9.01%	14.32%
27	6.71%	10.07%	2.44%	4.48%	9.15%	14.55%
28	6.81%	10.21%	2.50%	4.56%	9.31%	14.77%
29	6.91%	10.36%	2.56%	4.65%	9.47%	15.01%
30	7.01%	10.51%	2.62%	4.75%	9.63%	15.26%
31	7.11%	10.66%	2.68%	4.84%	9.79%	15.50%
32	7.21%	10.82%	2.74%	4.93%	9.95%	15.75%
33	7.32%	10.98%	2.81%	5.03%	10.13%	16.01%
34	7.43%	11.14%	2.88%	5.13%	10.31%	16.27%
35	7.54%	11.31%	2.94%	5.23%	10.48%	16.54%
36	7.65%	11.48%	3.01%	5.33%	10.66%	16.81%
37	7.77%	11.65%	3.08%	5.44%	10.85%	17.09%
38	7.87%	11.81%	3.14%	5.53%	11.01%	17.34%
39	7.99%	11.99%	3.22%	5.64%	11.21%	17.63%

<sup>1</sup> COLA rate is offset by 1.63%, which is picked up by the County.

## Section 4: Actuarial Valuation Basis

Entry Age	Basic First \$161.54	Basic Over \$161.54	COLA <sup>1</sup> First \$161.54	COLA <sup>1</sup> Over \$161.54	Total First \$161.54	Total Over \$161.54
40	8.11%	12.16%	3.29%	5.75%	11.40%	17.91%
41	8.21%	12.32%	3.35%	5.84%	11.56%	18.16%
42	8.31%	12.46%	3.41%	5.93%	11.72%	18.39%
43	8.37%	12.56%	3.45%	5.99%	11.82%	18.55%
44	8.42%	12.63%	3.48%	6.03%	11.90%	18.66%
45	8.43%	12.64%	3.48%	6.04%	11.91%	18.68%
46	8.40%	12.60%	3.47%	6.01%	11.87%	18.61%
47	8.34%	12.51%	3.43%	5.96%	11.77%	18.47%
48	8.60%	12.90%	3.59%	6.20%	12.19%	19.10%
49 and over	8.87%	13.30%	3.75%	6.44%	12.62%	19.74%

Interest: 6.50% per annum

COLA: 2.75%

Mortality: See *Section 4, Exhibit 1*

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

COLA Loading Factor: 60.66%

<sup>1</sup> COLA rate is offset by 1.63%, which is picked up by the County.

## Section 4: Actuarial Valuation Basis

### Safety Tier 3 Members' Contribution Rate Based on the June 30, 2024 Actuarial Valuation (as a % of eligible payroll)<sup>1</sup>

	<b>Entry Age</b>	<b>Basic</b>	<b>Total</b>
	All Ages	13.82%	13.82%
Interest:	6.50% per annum		
COLA:	0%		
Mortality:	See <i>Section 4, Exhibit 1</i>		
Salary Increase:	Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit/Promotion (See <i>Section 4, Exhibit 1</i> )		
COLA Loading Factor:	0%		

<sup>1</sup> 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 equal to \$151,446. (For an employer that is not enrolled in Social Security, the maximum amount is 120% of \$151,446, or \$181,734). (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2024. (reference: Section 7522.10(d))

## Section 4: Actuarial Valuation Basis

Probation Tier 2 Members' Contribution Rates Based on the June 30, 2024 Actuarial Valuation  
(as a % of biweekly payroll)

Entry Age	Basic First \$161.54	Basic Over \$161.54	COLA First \$161.54	COLA Over \$161.54	Total First \$161.54	Total Over \$161.54
15	5.76%	8.64%	2.84%	4.26%	8.60%	12.90%
16	5.76%	8.64%	2.84%	4.26%	8.60%	12.90%
17	5.84%	8.76%	2.88%	4.32%	8.72%	13.08%
18	5.92%	8.88%	2.92%	4.38%	8.84%	13.26%
19	6.00%	9.00%	2.95%	4.43%	8.95%	13.43%
20	6.09%	9.13%	3.00%	4.50%	9.09%	13.63%
21	6.17%	9.26%	3.04%	4.56%	9.21%	13.82%
22	6.26%	9.39%	3.09%	4.63%	9.35%	14.02%
23	6.35%	9.52%	3.13%	4.69%	9.48%	14.21%
24	6.44%	9.66%	3.17%	4.76%	9.61%	14.42%
25	6.53%	9.79%	3.21%	4.82%	9.74%	14.61%
26	6.62%	9.93%	3.26%	4.89%	9.88%	14.82%
27	6.71%	10.07%	3.31%	4.96%	10.02%	15.03%
28	6.81%	10.21%	3.35%	5.03%	10.16%	15.24%
29	6.91%	10.36%	3.40%	5.10%	10.31%	15.46%
30	7.01%	10.51%	3.45%	5.18%	10.46%	15.69%
31	7.11%	10.66%	3.50%	5.25%	10.61%	15.91%
32	7.21%	10.82%	3.55%	5.33%	10.76%	16.15%
33	7.32%	10.98%	3.61%	5.41%	10.93%	16.39%
34	7.43%	11.14%	3.66%	5.49%	11.09%	16.63%
35	7.54%	11.31%	3.71%	5.57%	11.25%	16.88%
36	7.65%	11.48%	3.77%	5.66%	11.42%	17.14%
37	7.77%	11.65%	3.83%	5.74%	11.60%	17.39%
38	7.87%	11.81%	3.88%	5.82%	11.75%	17.63%
39	7.99%	11.99%	3.94%	5.91%	11.93%	17.90%
40	8.11%	12.16%	3.99%	5.99%	12.10%	18.15%
41	8.21%	12.32%	4.05%	6.07%	12.26%	18.39%

## Section 4: Actuarial Valuation Basis

Entry Age	Basic First \$161.54	Basic Over \$161.54	COLA First \$161.54	COLA Over \$161.54	Total First \$161.54	Total Over \$161.54
42	8.31%	12.46%	4.09%	6.14%	12.40%	18.60%
43	8.37%	12.56%	4.13%	6.19%	12.50%	18.75%
44	8.42%	12.63%	4.15%	6.22%	12.57%	18.85%
45	8.43%	12.64%	4.15%	6.23%	12.58%	18.87%
46	8.40%	12.60%	4.14%	6.21%	12.54%	18.81%
47	8.34%	12.51%	4.11%	6.16%	12.45%	18.67%
48	8.60%	12.90%	4.24%	6.36%	12.84%	19.26%
49 and over	8.87%	13.30%	4.37%	6.55%	13.24%	19.85%

Interest: 6.50% per annum

COLA: 2.75%

Mortality: See Section 4, Exhibit 1

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

COLA Loading Factor: 49.27%

## Section 4: Actuarial Valuation Basis

### Probation Tier 3 Members' Contribution Rate Based on the June 30, 2024 Actuarial Valuation (as a % of eligible payroll)<sup>1</sup>

	<b>Entry Age</b>	<b>Basic</b>	<b>Total</b>
	All Ages	13.44%	13.44%
Interest:	6.50% per annum		
COLA:	0%		
Mortality:	See Section 4, <i>Exhibit 1</i>		
Salary Increase:	Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit/Promotion (See Section 4, <i>Exhibit 1</i> )		
COLA Loading Factor:	0%		

<sup>1</sup> 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 equal to \$151,446. (For an employer that is not enrolled in Social Security, the maximum amount is 120% of \$151,446, or \$181,734). (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2024. (reference: Section 7522.10(d))

# Appendix A: Definition of Pension Terms

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

Term	Definition
Actuarial accrued liability for actives	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial accrued liability for retirees and beneficiaries	Actuarial present value of lifetime benefits to existing retirees and beneficiaries. This sum takes account of life expectancies appropriate to the ages of the annuitants and the interest that the sum is expected to earn before it is entirely paid out in benefits.
Actuarial cost method	A procedure allocating the actuarial present value of future benefits to various time periods; a method used to determine the normal cost and the actuarial accrued liability that are used to determine the actuarially determined contribution.
Actuarial gain or loss	A measure of the difference between actual experience and that expected based upon a set of actuarial assumptions, during the period between two actuarial valuation dates. To the extent that actual experience differs from that assumed, actuarial accrued liabilities emerge which may be the same as forecasted or may be larger or smaller than projected. Actuarial gains are due to favorable experience, e.g., assets earn more than projected, salary increases are less than assumed, members retire later than assumed, etc. Favorable experience means actual results produce actuarial liabilities not as large as projected by the actuarial assumptions. On the other hand, actuarial losses are the result of unfavorable experience, i.e., actual results yield actuarial liabilities that are larger than projected.
Actuarially equivalent	Of equal actuarial present value, determined as of a given date and based on a given set of actuarial assumptions.
Actuarial present value	<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	<p>The estimates upon which the cost of the Plan is calculated, including:</p> <p><b>Investment return</b> — the rate of investment yield that the Plan will earn over the long-term future;</p> <p><b>Mortality rates</b> — the rate or probability of death at a given age for employees and retirees;</p> <p><b>Retirement rates</b> — the rate or probability of retirement at a given age or service;</p> <p><b>Disability rates</b> — the rate or probability of disability retirement at a given age;</p> <p><b>Withdrawal rates</b> — the rate or probability at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement;</p> <p><b>Salary increase rates</b> — the rates of salary increase due to inflation, real wage growth and merit and promotion increases.</p>
Closed amortization period	<p>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.”</p>
Decrements	<p>Those causes/events due to which a member’s status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.</p>
Defined benefit plan	<p>A retirement plan in which benefits are defined by a formula based on the member’s compensation, age and/or years of service.</p>
Defined contribution plan	<p>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.</p>
Employer normal cost	<p>The portion of the normal cost to be paid by the employer. This is equal to the normal cost less expected member contributions.</p>
Experience study	<p>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.</p>
Funded ratio	<p>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.</p>
GASB 67 and GASB 68	<p>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.</p>

## 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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