San Bernardino County Employees' Retirement Association

Actuarial Valuation and Review

As of June 30, 2023

Segal

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October 23, 2023

Board of Retirement
San Bernardino County Employees' Retirement Association
348 West Hospitality Lane, Suite 100
San Bernardino, CA 92408

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of June 30, 2023. It summarizes the actuarial data used in the valuation, analyzes the preceding year's experience, and establishes the funding requirements for July 1, 2024 to June 30, 2025.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Retirement Association. The census information and financial information on which our calculations were based was prepared by the staff of the Association. That assistance is gratefully acknowledged.

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 Molly Calcagno, ASA, Enrolled Actuary, MAAA. 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 based upon our analysis and recommendations. In our opinion, the assumptions are reasonable and take into account the experience of the Plan and reasonable expectations. In addition, in our opinion, the combined effect of these assumptions is expected to have no significant bias.

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

Sincerely,

Segal

Paul Angelo, FSA, EA, MAAA, FCA Senior Vice President and Actuary	Molly Calcagno, ASA, EA, MAAA Senior Actuary	Todd Tauzer, FSA, MAAA, FCA, CERA Senior Vice President and Actuary

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Section 1: Actuarial Valuation Summary

Purpose and Basis

This report was prepared by Segal to present a valuation of the San Bernardino County Employees' Retirement Association ("SBCERA" or "the Association") as of June 30, 2023. 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 pension plan, as administered by SBCERA;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of May 31, 2023, provided by SBCERA;
- The assets of the Plan as of June 30, 2023, provided by SBCERA;
- Economic assumptions regarding future salary increases and investment earnings adopted by the Board of Retirement for the June 30, 2023 valuation;
- Other actuarial assumptions regarding employee terminations, retirement, death, etc. adopted by the Board of Retirement for the June 30, 2023 valuation; and
- The funding policy adopted by the Board of Retirement.

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.

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions to evaluate the Association's liabilities and future contribution requirements. Our calculations are based upon member data and financial information provided to us by the Association's staff. This information has not been audited by us, but it has been reviewed and found to be consistent, both internally and with prior year's information.

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 last reviewed with the Board of Retirement in 2022. Details of the funding policy are provided in *Section 4, Exhibit 1* on pages 98 and 99.

Section 1: Actuarial Valuation Summary

A schedule of current amortization balances and payments may be found in *Section 3, Exhibit H* starting on page 76. A graphical projection of the Unfunded Actuarial Accrued Liability (UAAL) amortization balances and payments has been included in *Section 3, Exhibit I* on pages 83 and 84.

The Actuarial Standards Board Actuarial Standard of Practice (ASOP) No. 4 provides guidelines for actuaries to follow when measuring pension obligations. For a plan such as that offered by the Retirement Association that may use undesignated excess earnings to provide supplemental benefits, the valuation report must indicate that the impact of any such future use of undesignated excess earnings on the future financial condition of the plan has not been explicitly measured or otherwise reflected in the valuation. However, it should be noted that under the Board's Interest Crediting Policy, the balance of $4.4 billion (negative) in the Contra Account has to be fully restored out of future excess earnings before any subsequent earnings can be used to provide for any supplemental benefits.

The rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2024 through June 30, 2025.

Section 1: Actuarial Valuation Summary

Valuation Highlights

Pg. 89 1. The results of this valuation reflect changes in the actuarial assumptions as recommended by Segal and adopted by the Board for the June 30, 2023 valuation. These changes were documented in our Actuarial Experience Study and are also outlined in *Section 4, Exhibit 1* of this report. The assumption changes resulted in a decrease in the Actuarial Accrued Liability of $122.72 million, or 0.7%, a decrease in the average employer contribution rate of 0.59% of payroll, and a decrease in the average member rate of 0.45% of payroll.[1] Of the 0.59% of payroll decrease in the average employer rate, 0.45% of payroll[1] is due to an decrease in the Normal Cost and 0.14% of payroll is due to an decrease in the UAAL rate.

Pgs. 76-82 2. Based on the Association's UAAL amortization schedule, several amortization layers, including the June 30, 2003 actuarial loss, June 30, 2004 actuarial loss, June 30, 2004 POB credit, and the June 30, 2004 plan change layers will become fully amortized during the 2023-2024 plan year. As a result, the employer UAAL contributions for the plan as a whole will reflect a decrease of about $24 million or about 1.27% of payroll in the June 30, 2024 valuation.

Pg. 41 3. The ratio of the Actuarial Value of Assets to Actuarial Accrued Liabilities increased from 84.8% to 86.1%. This ratio is one measure of funding status, and its history is a measure of funding progress. The ratio of the Market Value of Assets to the Actuarial Accrued Liability increased from 85.1% to 85.6%. 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.

Pg. 32 4. The Association's UAAL (which is based on the Actuarial Value of Assets) decreased from $2.37 billion to $2.29 billion. The decrease in UAAL is primarily due to the impact of assumption changes and contributions paying down a portion of the UAAL. A complete reconciliation of the Association's UAAL (on a Valuation Value of Assets basis and excluding the Survivor Benefit Reserve assets and liabilities) is provided in *Section 2, Subsection E*.

Pg. 26 5. The actuarial loss of $188.0 million, or 1.1% of the Actuarial Accrued Liability, is due to an investment loss of $29.2 million, or 0.2% of the Actuarial Accrued Liability, a contribution gain of $38.6 million, or 0.2% of the Actuarial Accrued Liability, and a net experience loss from sources other than investments and contributions of $197.3, or 1.2% of the Actuarial Accrued Liability prior to reflection of assumption changes. This loss from sources other than investment and contribution experience was primarily due to individual salary increases higher than expected.

Pg. 35 6. The average employer contribution rate calculated in this valuation decreased from 31.43% of payroll to 30.22% of payroll. This decrease is primarily due the effect of amortizing prior year's UAAL over a larger than expected projected total salary and the impact of

[1] Includes the impact of three technical changes to: (1) allocate the suspended COLA normal cost contributions for Tier 1 members with at least 30 years of service to the employers (consistent with how the suspended basic normal cost contributions are allocated), (2) reflect the timing of decrements in calculating the normal cost rate for each plan and (3) to use the individual version of the Entry Age Cost Method to determine the Normal Cost of the COLA benefits. These changes decreased the average member rate by 0.16% of payroll and decreased the average employer Normal Cost rate by 0.01% of payroll.

Section 1: Actuarial Valuation Summary

assumption changes, partially offset by the effect of individual salary increases higher than expected. A complete reconciliation of the Association's average employer contribution rate is provided in *Section 2, Subsection F.*

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7. The average member rate calculated in this valuation has decreased from 10.95% of payroll to 10.44% of payroll. This change is primarily due to the impact of assumption changes as well as changes in member demographics amongst the tiers. A complete reconciliation of the Association's average member rate is provided in *Section 2, Subsection F*.

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8. This report reflects the $50,000 additional contribution made by LAFCO and the $100,000 additional contribution made by Law Library towards their UAALs as of June 30, 2023. These amounts will be amortized as a level percent of pay over a period of twenty years and be credited with earnings based on the Plan's market value investment return every year. LAFCO and Law Library each have separate recommended employer UAAL contribution rates that are different from the rest of the Other General cost group as shown in *Section 2, Subsection F*.

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9. The rate of return on the Market Value of Assets was 6.04% for the 2022-2023 plan year. The return on the Actuarial Value of Assets was 7.03% for the same period after considering the recognition of prior years' investment gains and losses. This resulted in an actuarial loss when measured against the assumed rate of return of 7.25%. This actuarial investment loss increased the average employer contribution rate by 0.12% of payroll.

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10. The total unrecognized net investment loss as of June 30, 2023 is about $86 million as compared to an unrecognized net investment gain of $42 million in the previous valuation. This deferred investment loss of $86 million will be recognized in the determination of the Actuarial Value of Assets for funding purposes in the next few years as shown in *Section 2, Subsection B.*

    The net deferred losses of $86 million represent about 0.6% of the Market Value of Assets. Unless offset by future investment gains or other favorable experience, the recognition of the $86 million market losses is expected to have an impact on the Association's future funded ratio and contribution rate requirements. This potential impact may be illustrated as follows:

    a. If the net deferred losses in this year's valuation were recognized immediately and entirely in the Actuarial Value of Assets, the funded ratio would decrease from 86.1% to 85.6%

       For comparison purposes, if all the net deferred gains in the June 30, 2022 valuation had been recognized immediately in the June 30, 2022 valuation, the funded ratio in last year's valuation would have increased from 84.8% to 85.1%

    b. If the net deferred losses in this year's valuation were recognized immediately and entirely in the Actuarial Value of Assets, the average employer contribution rate would increase from 30.22% to 30.57% of payroll.

       For comparison purposes, if all the net deferred gains in the June 30, 2022 valuation had been recognized immediately in the June 30, 2022 valuation, the average employer contribution rate in last year's valuation would have decreased from 31.43% to 31.25% of payroll.

Section 1: Actuarial Valuation Summary

11. The actuarial valuation report as of June 30, 2023 is based on financial information as of that date and demographic data as of May 31, 2023. Changes in the value of assets subsequent to that date are not reflected. Declines in asset values will increase the actuarial cost of the plan, while increases will decrease the actuarial cost of the plan.

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12. The Actuarial Standards Board approved Actuarial Standard of Practice No. 51 (ASOP 51) regarding risk assessment, which was first effective with SBCERA's June 30, 2019 actuarial valuation. ASOP 51 requires actuaries to identify and assess risks that "may reasonably be anticipated to significantly affect the plan's future financial condition". Examples of key risks listed that are particularly relevant to SBCERA are asset/liability mismatch risk, investment risk, and longevity risk. The standard also requires an actuary to consider if there is any ongoing contribution risk to the plan, however it does not require the actuary to evaluate the particular ability or willingness of contributing entities to make contributions when due, nor does it require the actuary to assess the likelihood or consequences of future changes in applicable law.

    The actuary's initial assessment can be strictly a qualitative discussion about potential adverse experience and the possible effect on future results, but it may also include quantitative numerical demonstrations where informative. The actuary is also encouraged to consider a recommendation as to whether a more detailed assessment or risk report would be significantly beneficial for the intended user in order to examine particular financial risks. When making that recommendation, the actuary will take into account such factors as the plan's design, risk profile, maturity, size, funded status, asset allocation, cash flow, possible insolvency and current market conditions.

    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. We have not been engaged to perform a detailed analysis of the potential range of the impact of risk relative to the Association's future financial condition, but have included a brief discussion of key risks that may affect the Association in *Section 2, Subsection J*. A more detailed assessment of the risks tailored to specific interests or concerns of the Board would provide the Board with a better understanding of the inherent risks. This assessment would further discuss and highlight information and risks particular to SBCERA such as detailed historical experience and key events, growing plan maturity, heightened contribution sensitivity to asset and liability changes, and projected sensitivity to potential future investment returns through selected scenario or stress test projections.

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    Note that this year the risk assessment section includes the disclosure of a "Low-Default-Risk Obligation Measure" (LDROM). This disclosure, along with commentary on the significance of the LDROM, is a new requirement under Actuarial Standard of Practice No. 4 (ASOP 4) for all pension funding actuarial valuation reports.

13. Segal strongly recommends an actuarial funding policy 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 as described in *Section 4, Exhibit 1* meets this standard.

Section 1: Actuarial Valuation Summary

14. 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 (NPL) and Pension Expense under Governmental Accounting Standards Board (GASB) Statements No. 67 and No. 68, for inclusion in the plan and employer's financial statements as of June 30, 2023, 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.
15. It is important to note that this actuarial valuation is based on plan assets as of June 30, 2023. 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. Moreover, this actuarial valuation does not include any possible short-term or long-term impacts on mortality of the covered population that may emerge after May 31, 2023 due to COVID-19. Segal is available to prepare projections of potential outcomes of market conditions and other demographic experience upon request.

Summary of Key Valuation Results

		June 30, 2023		June 30, 2022	
		Total Rate	Estimated Annual Dollar Amount[1] ($ in '000s)	Total Rate	Estimated Annual Dollar Amount[1] ($ in '000s)
Employer Contribution Rates:	• County General Tier 1	24.21%	$142,201	25.54%	$150,519
	• County General Tier 2	21.57%	144,747	22.53%	127,930
	• Safety Tier 1	61.41%	108,871	61.93%	107,949
	• Safety Tier 2	52.82%	78,063	53.58%	63,944
	• County General and Safety Combined	29.93%	473,882	31.04%	450,342
	• Superior Court Tier 1	26.06%	10,906	27.72%	12,243
	• Superior Court Tier 2	23.42%	10,252	24.71%	8,676
	• South Coast Air Quality Management District Tier 1	42.00%	17,725	44.18%	19,696
	• South Coast Air Quality Management District Tier 2	37.45%	16,703	38.81%	14,366
	• Other General Tier 1 (Non-LAFCO, Non-Law Library)	34.98%	10,200	35.90%	10,776
	• Other General Tier 2 (Non-LAFCO, Non-Law Library)	29.80%	7,833	31.03%	6,657
	• Other General Tier 1 (LAFCO)	28.34%	114	30.19%	118
	• Other General Tier 2 (LAFCO)	23.16%	16	25.32%	17
	• Other General Tier 1 (Law Library)	33.06%	58	35.90%	68
	• Other General Tier 2 (Law Library)	27.88%	56	31.03%	56
	All Categories Combined	**30.22%**	**$547,745**	**31.43%**	**$523,015**
Average Member Contribution Rates:[2]	• County General Tier 1	10.66%	$62,613	11.31%	$66,655
	• County General Tier 2	8.74%	58,650	9.08%	51,558
	• Safety Tier 1	13.85%	24,554	14.09%	24,560
	• Safety Tier 2	15.06%	22,257	15.77%	18,821
	• County General and Safety Combined	10.61%	168,074	11.14%	161,594
	• Superior Court Tier 1	10.65%	4,457	11.08%	4,893
	• Superior Court Tier 2	8.74%	3,826	9.08%	3,188
	• South Coast Air Quality Management District Tier 1	9.57%	4,039	9.30%	4,146
	• South Coast Air Quality Management District Tier 2	7.84%	3,497	8.23%	3,046
	• Other General Tier 1	10.25%	3,048	10.86%	3,322
	• Other General Tier 2	8.61%	2,286	9.09%	1,973
	All Categories Combined	**10.44%**	**$189,227**	**10.95%**	**$182,162**

[1] Based on projected annual compensation for each valuation date.

[2] The refundability factors are 1.03 for General Tier 1 and 1.01 for Safety Tier 1 as of June 30, 2023 and 1.04 for General Tier 1 and 1.01 for Safety Tier 1 as of June 30, 2022. See *Section 4, Exhibit 3* for the individual member contribution rates.

Summary of Key Valuation Results (continued)

		June 30, 2023 ($ in '000s)	June 30, 2022 ($ in '000s)
Actuarial Accrued Liability as of June 30:	• Retired members and beneficiaries	$9,200,759	$8,709,430
	• Inactive vested members[1]	707,293	639,994
	• Active members	6,510,730	6,254,174
	• Survivor Benefit & Burial Allowance	27,890	26,526
	• Total Actuarial Accrued Liability	16,446,672	15,630,124
	• Normal Cost for plan year beginning June 30	402,604	389,717
Assets as of June 30:[3]	• Market Value of Assets (MVA)[2]	$14,071,350	$13,302,916
	• Actuarial Value of Assets (AVA)[2,4]	14,157,370	13,260,596
Funded status as of June 30:	• Unfunded Actuarial Accrued Liability on Market Value of Assets basis	$2,375,322	$2,327,208
	• Funded percentage on MVA basis	85.56%	85.11%
	• Unfunded Actuarial Accrued Liability on Actuarial Value of Assets basis	$2,289,302	$2,369,528
	• Funded percentage on AVA basis	86.08%	84.84%
Key assumptions:	• Net investment return	7.25%	7.25%
	• Price inflation	2.50%	2.75%
	• Payroll growth	3.00%	3.25%
	• Cost-of-living adjustments	2.00%	2.00%
	• Amortization period on AVA basis[5]	20 years	20 years

1 Includes inactive members with member contributions on deposit.

2 The June 30, 2023 and June 30, 2022 values exclude $6.1 million and $6.4 million, respectively. These amounts represent the associated present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer and from the City of Big Bear Lake (including the Big Bear Fire Authority) to SBCERA for their transfers. As of June 30, 2022, the amount from the Barstow Fire Protection District for their transfer has been fully paid.

3 See *Section 2, Subsection B* on page 24 for the development of the Valuation Value of Assets (VVA) by cost group.

4 Includes assets held for Survivor Benefit and Burial Allowance reserves. For June 30, 2023, those amounts are $93,638 and $325, respectively. The AVA for retirement plan benefits is $14,063,407 as of June 30, 2023.

5 Changes in Unfunded Actuarial Accrued Liability as a result of gains or losses for each valuation are amortized over separate 20-year periods. Details of the funding policy are provided in *Section 4, Exhibit 1*.

Summary of Key Valuation Results (continued)

		June 30, 2023	June 30, 2022	Change From Prior Year
Demographic data as of June 30:	**Active Members:**			
	• Number of members	22,084	21,276	3.8%
	• Average age	43.7	44.1	-0.4
	• Average service	10.4	10.8	-0.4
	• Total projected compensation	$1,812,215,938	$1,663,990,875	8.9%
	• Average projected compensation	$82,060	$78,210	4.9%
	Retired Members and Beneficiaries:			
	• Number of members:			
	– Service retired	11,526	11,140	3.5%
	– Disability retired	1,700	1,681	1.1%
	– Beneficiaries[1]	2,163	2,057	5.2%
	– Total	15,389	14,878	3.4%
	• Average age	70.2	69.9	0.3
	• Average monthly benefit	$4,137	$4,026	2.8%
	Inactive Vested Members:			
	• Number of members[2]	10,324	9,188	12.4%
	• Average age	43.7	43.8	-0.1
	Total Members:	47,797	45,342	5.4%

[1] Excludes beneficiaries that are only receiving Survivor Benefit amounts.
[2] Includes inactive members with member contributions on deposit.

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:

Plan Provisions	Plan provisions define the rules that will be used to determine benefit payments, and those rules, or the interpretation of them, may change over time. Even where they appear precise, outside factors may change how they operate. It is important to keep Segal informed with respect to plan provisions and administrative procedures, and to review the plan summary included in our report to confirm that Segal has correctly interpreted the plan of benefits.
Participant Information	An actuarial valuation for a plan is based on data provided to the actuary by the Association. Segal does not audit such data for completeness or accuracy, other than reviewing it for obvious inconsistencies compared to prior data and other information that appears unreasonable. It is important for Segal to receive the best possible data and to be informed about any known incomplete or inaccurate data.
Financial Information	The valuation is based on the Market Value of Assets as of the valuation date, as provided by the Association. The Association uses a “Valuation Value of Assets” that differs from market value to gradually reflect year-to-year changes in the Market Value of Assets in determining the contribution requirements.
Actuarial Assumptions	In preparing an actuarial valuation, Segal starts by developing a forecast of the benefits to be paid to existing plan participants 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 participants 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 any). 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.
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.

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, except where otherwise noted, Segal did not perform an analysis of the potential range of future financial measures. 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. Future contribution requirements may differ from those determined in the valuation because of:

- Differences between actual experience and anticipated experience;
- Changes in actuarial assumptions or methods;
- Changes in statutory provisions; and
- Differences between the contribution rates determined by the valuation and those adopted by the Board of Retirement.[1]

Some actuarial results in this report are not rounded, but that does not imply precision.

If the Association is aware of any event or trend that was not considered in this valuation that may materially change the results of the valuation, Segal should be advised, so that we can evaluate it.

Segal does not provide investment, legal, accounting, or tax advice. Segal's valuation is based on our 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 the Association upon delivery and review. The Association should notify Segal immediately of any questions or concerns about the final content.

As Segal has no discretionary authority with respect to the management or assets of the Plan, it is not a fiduciary in its capacity as actuaries and consultants with respect to the Plan.

[1] SBCERA has a proven track record of adopting the Actuarial Determined Contributions as determined by the valuation and based on the Board's Actuarial Funding Policy.

Section 2: Actuarial Valuation Results

A. Member Data

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

This section presents a summary of significant statistical data on these member groups.

More detailed information for this valuation year and the preceding valuation can be found in *Section 3, Exhibits A, B,* and *C*.

Member Population: 2014 – 2023

Year Ended June 30	Active Members	Inactive Vested Members[1]	Retired Members and Beneficiaries	Total Non-Actives	Ratio of Non-Actives to Actives	Ratio of Retired Members and Beneficiaries to Actives
2014	19,497	4,356	10,618	14,974	0.77	0.54
2015	19,938	4,804	11,128	15,932	0.80	0.56
2016	20,538	5,136	11,630	16,766	0.82	0.57
2017	21,110	5,547	12,179	17,726	0.84	0.58
2018	21,465	6,211	12,716	18,927	0.88	0.59
2019	21,823	6,726	13,244	19,970	0.92	0.61
2020	21,814	7,494	13,833	21,327	0.98	0.63
2021	21,500	8,197	14,292	22,489	1.05	0.66
2022	21,276	9,188	14,878	24,066	1.13	0.70
2023	22,084	10,324	15,389	25,713	1.16	0.70

[1] Includes inactive members with member contributions on deposit.

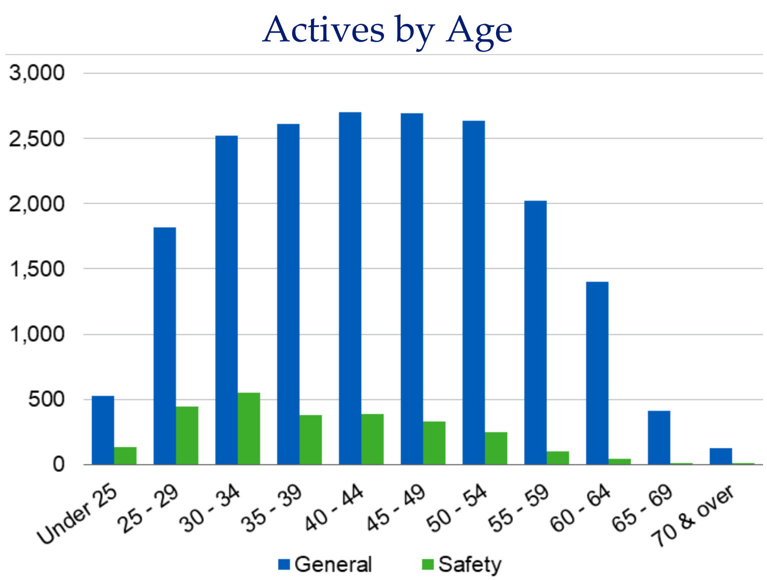
Section 2: Actuarial Valuation Results

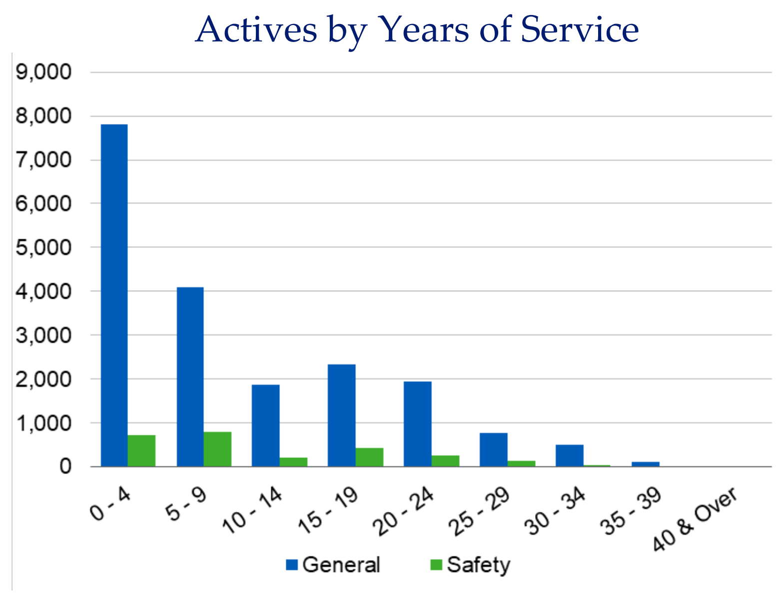
Active Members

Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there were 22,084 active members with an average age of 43.7, average years of service of 10.4 years and average compensation of $82,060. The 21,276 active members in the prior valuation had an average age of 44.1, average service of 10.8 years and average compensation of $78,210.

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

Distribution of Active Members as of June 30, 2023





Average age	43.7
Prior year average age	44.1
Difference	-0.4

Average years of service	10.4
Prior year average years of service	10.8
Difference	-0.4

Inactive Members

In this year's valuation, there were 10,324 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 9,188 in the prior valuation.

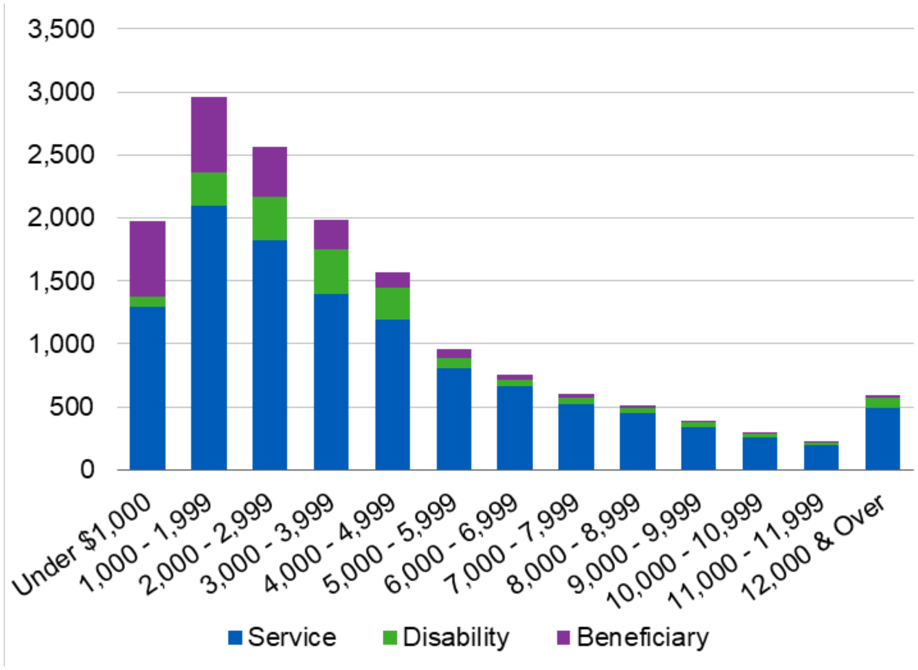
Retired Members and Beneficiaries

As of June 30, 2023, 13,226 retired members and 2,163 beneficiaries were receiving total monthly benefits of $63,663,162. For comparison, in the previous valuation, there were 12,821 retired members and 2,057 beneficiaries receiving total monthly benefits of $59,894,804.

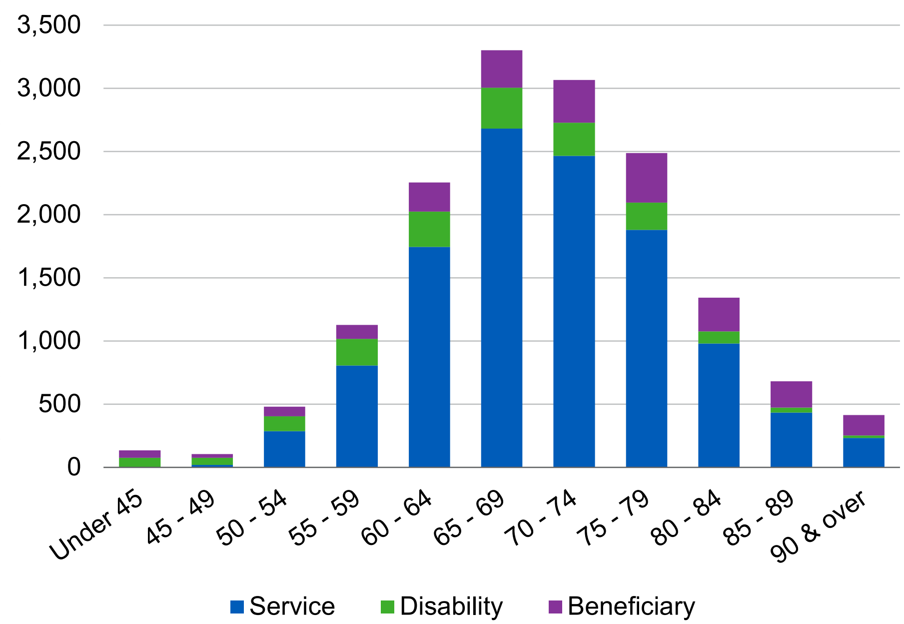
As of June 30, 2023, the average monthly benefit for retired members and beneficiaries is $4,137, compared to $4,026 in the previous valuation. The average age for retired members and beneficiaries is 70.2 in the current valuation, compared with 69.9 in the prior valuation.

Distribution of Retired Members and Beneficiaries as of June 30, 2023

Retired Members and Beneficiaries by Type and Monthly Amount



Retired Members and Beneficiaries by Type and Age



Section 2: Actuarial Valuation Results

Historical Plan Population

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

Member Data Statistics: 2014 – 2023

	Active Members			Retired Members and Beneficiaries		
Year Ended June 30	**Count**	**Average Age**	**Average Service**	**Count**	**Average Age**	**Average Monthly Amount**
2014	19,497	44.7	11.3	10,618	68.6	$3,128
2015	19,938	44.5	11.1	11,128	68.8	3,228
2016	20,538	44.4	10.9	11,630	68.9	3,331
2017	21,110	44.2	10.7	12,179	69.0	3,459
2018	21,465	44.0	10.7	12,716	69.2	3,571
2019	21,823	44.0	10.6	13,244	69.4	3,679
2020	21,814	43.9	10.6	13,833	69.5	3,790
2021	21,500	44.1	10.8	14,292	69.8	3,896
2022	21,276	44.1	10.8	14,878	69.9	4,026
2023	22,084	43.7	10.4	15,389	70.2	4,137

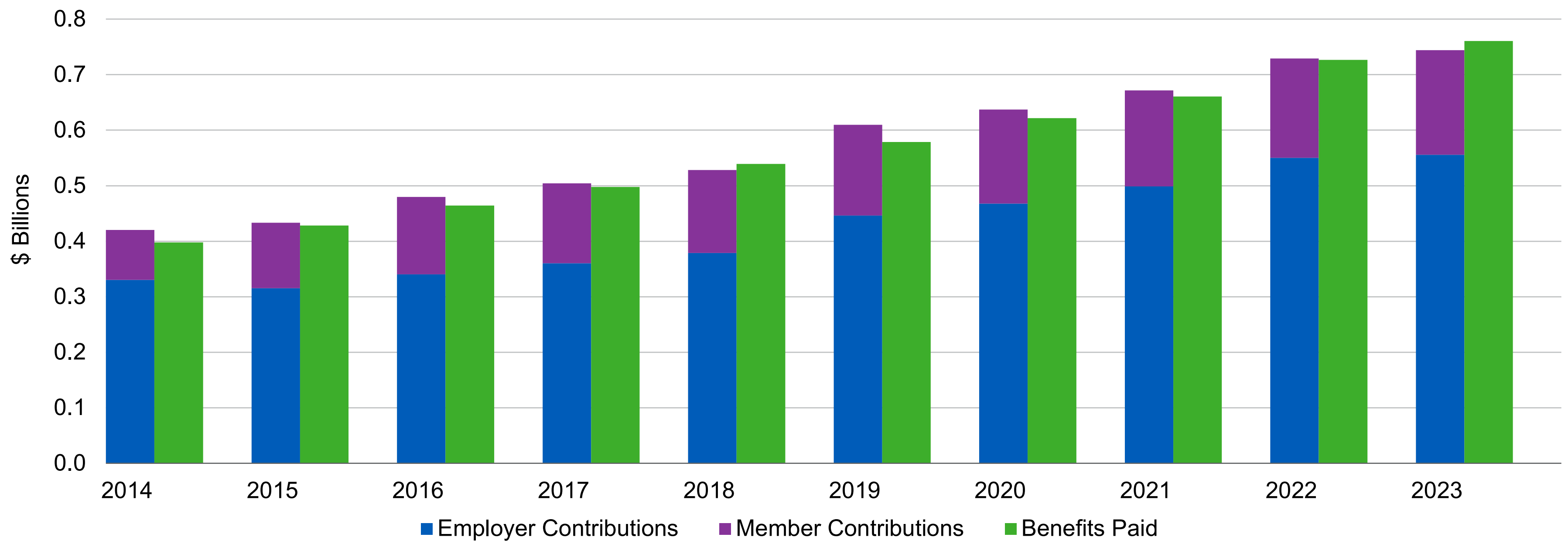
B. Financial Information

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

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

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

Comparison of Contributions Made with Benefits for Years Ended June 30, 2014 – 2023



Section 2: Actuarial Valuation Results

Determination of Actuarial Value of Assets for Year Ended June 30, 2023

		Actual Return	Expected Return	Investment Gain/(Loss)	Percent Deferred	Unrecognized Amount
1	**Market Value of Assets**					**$14,071,349,533**
2	Calculation of unrecognized return[1]					
	a. Year ended June 30, 2019	$502,752,677	$730,578,345	$(227,825,668)	0%	$0
	b. Year ended June 30, 2020	(302,050,888)	767,727,375	(1,069,778,263)	20%	(213,955,653)
	c. Year ended June 30, 2021	3,353,791,858	745,550,010	2,608,241,848	40%	1,043,296,739
	d. Year ended June 30, 2022	(323,043,598)	988,391,295	(1,311,434,893)	60%	(786,860,936)
	e. Year ended June 30, 2023	802,595,553	963,221,416	(160,625,863)	80%	(128,500,690)
	f. Total unrecognized return[2]					$(86,020,540)
3	**Actuarial Value of Assets 1 - 2f**					**$14,157,370,073**
4	Actuarial Value of Assets as a percentage of Market Value of Assets **3 / 1**					100.6%
5	Non-valuation reserves:					
	a. Burial Allowance Reserve					$324,652
6	**Preliminary Valuation Value of Assets 3 - 5a**					**$14,157,045,421**
7	**Valuation Value of Assets[3]**					**$14,163,143,392**

[1] Recognition at 20% per year over five years.

[2] Deferred return as of June 30, 2023 recognized in each of the next four years:

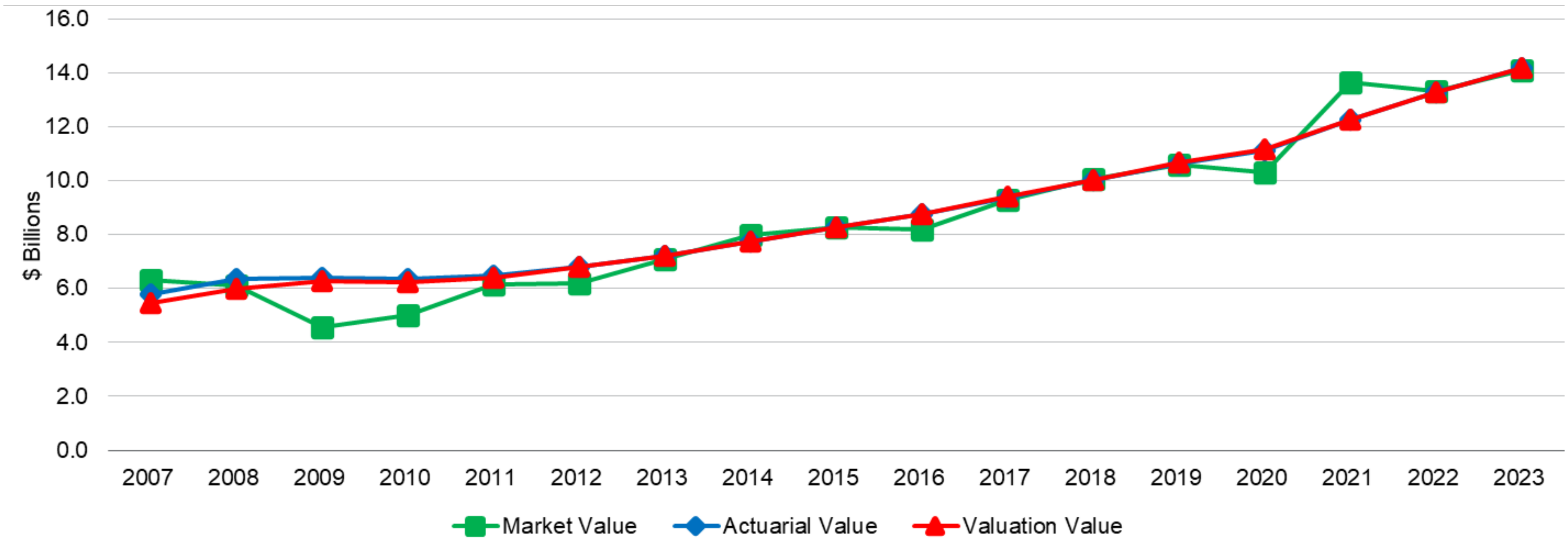
a.	Amount recognized on June 30, 2024	$13,280,566
b.	Amount recognized on June 30, 2025	227,236,218
c.	Amount recognized on June 30, 2026	(294,412,151)
d.	Amount recognized on June 30, 2027	(32,125,173)
e.	Subtotal	$(86,020,540)

[3] Includes $6.1 million that represents the present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer and from the City of Big Bear Lake (including the Big Bear Fire Authority) to SBCERA for their transfers.

Section 2: Actuarial Valuation Results

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 the actuarial value, excluding any non-valuation reserves. The Valuation Value of Assets is significant because the Plan's liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the Unfunded Actuarial Accrued Liability is an important element in determining the contribution requirement.

Market Value, Actuarial Value, and Valuation Value of Assets as of June 30, 2007 – 2023



Section 2: Actuarial Valuation Results

Allocation of Valuation Value of Assets as of June 30, 2023

		General			
		County	Superior Court	SCAQMD	Others
1	**Allocated Valuation Value of Assets as of Beginning of Plan Year**	**$8,199,451,367**	**$540,053,784**	**$839,038,213**	**$364,808,247**
2	Allocated Valuation Value of Assets as of Beginning of Plan Year Including Future Safety Contributions	8,199,451,367	540,053,784	839,038,213	364,808,247
3	Member Contributions	119,857,397	8,278,905	7,187,715	5,470,357
4	Employer Contributions	300,383,021	22,644,125	36,472,632	20,499,804
5	Allocated Administrative Expenses	12,072,098	827,043	851,246	545,586
6	Benefit Payments Excluding Burial Allowance Payments ($250)	**452,005,958**	**25,807,105**	**62,415,901**	21,337,972
7	**Subtotal (Item 1+3+4-5-6)**	**$8,155,613,729**	**$544,342,666**	**$819,431,413**	**$368,894,850**
8	Weighted Average Fund Balance	8,177,532,547	542,198,225	829,234,813	366,776,549
9	Earnings Allocated in Proportion to Item 8	574,636,741	38,100,371	58,270,485	25,773,457
10	**Allocated Valuation Value of Assets as of End of Plan Year (Item 7+9)**	**$8,730,250,470**	**$582,443,037**	**$877,701,898**	**$394,668,307**
11	**Allocated Valuation Value of Assets as of End of Plan Year Including Future Safety Contributions**	**$8,730,250,470**	**$582,443,037**	**$877,701,898**	**$394,668,307**

Note: Results may be slightly off due to rounding.

Section 2: Actuarial Valuation Results

Allocation of Valuation Value of Assets as of June 30, 2023 (continued)

		Safety	Withdrawn Employers[1]	Survivor Benefit Reserve	Total
1	**Allocated Valuation Value of Assets as of Beginning of Plan Year**	**$3,198,200,805**	**$29,917,390**	**$88,739,335**	**$13,260,209,141**
2	Allocated Valuation Value of Assets as of Beginning of Plan Year Including Future Safety Contributions	3,204,555,629[2]	29,917,390	88,739,335	13,266,563,965
3	Member Contributions	46,858,119	0	438,114	188,090,607
4	Employer Contributions	175,446,694	0	445,408	555,891,684
5	Allocated Administrative Expenses	3,063,542	0	0	17,359,515
6	Benefit Payments Excluding Burial Allowance Payments ($250)	195,540,982	1,112,593	2,502,834	760,723,345
7	**Subtotal (Item 1+3+4-5-6)**	**$3,221,901,094**	**$28,804,797**	**$87,120,023**	**$13,226,108,572**
8	Weighted Average Fund Balance	3,210,103,442	29,361,094	87,929,679	13,243,136,349
9	Earnings Allocated in Proportion to Item 8	225,574,569	2,063,210	6,518,016	930,936,849
10	**Allocated Valuation Value of Assets as of End of Plan Year (Item 7+9)**	**$3,447,475,663**	**$30,868,007**	**$93,638,039**	**$14,157,045,421**
11	**Allocated Valuation Value of Assets as of End of Plan Year Including Future Safety Contributions**	**$3,453,573,634[3]**	**$30,868,007**	**$93,638,039**	**$14,163,143,392**

Note: Results may be slightly off due to rounding.

[1] Withdrawn employers include San Bernardino International Airport Authority, Inland Valley Development Agency, Rim of the World Recreation & Park District, Inland Library System and CERTNA.

[2] Includes $6.4 million that represents the present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer and from the City of Big Bear Lake (including the Big Bear Fire Authority) to SBCERA for their transfers. As of June 30, 2022, the amount from the Barstow Fire Protection District for their transfer has been fully paid.

[3] Includes $6.1 million that represents the present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer and from the City of Big Bear Lake (including the Big Bear Fire Authority) to SBCERA for their transfers.

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.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years. The changes in actuarial assumptions based on the experience study performed earlier this year are reflected in this valuation.

The net total loss is $188.0 million, which includes $29.2 million from investment losses, a gain of $38.6 million from contribution experience (including a gain of $0.15 million from additional UAAL contributions from LAFCO and Law Library) and $197.3 in losses from all other sources. The net experience variation from individual sources other than investments and contributions was 1.2% of the Actuarial Accrued Liability. A discussion of the major components of the actuarial experience is on the following pages.

Actuarial Experience for Year Ended June 30, 2023

1	Net loss from investments[1]	$(29,191,000)
2	Net gain from contribution experience	38,553,000
3	Net loss from other experience[2]	(197,324,000)
4	**Net experience loss: 1 + 2 + 3**	**$(187,962,000)**

[1] Details on next page.
[2] See *Section 2, Subsection E* for further details. Does not include the effect of plan or assumption changes, if any.

Investment Experience

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Plan’s investment policy. The rate of return on the Market Value of Assets was 6.04% for the year ended June 30, 2023.

For valuation purposes, the assumed rate of return on the Valuation Value of Assets is 7.25%. The actual rate of return on a valuation basis for the 2022-2023 plan year was 7.03%. Because the actual return for the year was less than the assumed return, the Plan experienced an actuarial loss during the year ended June 30, 2023 with regard to its investments.

Investment Experience for Year Ended June 30, 2023

		Market Value	Actuarial Value	Valuation Value
1	Net investment income	$802,595,553	$930,936,849	$930,936,849
2	Average value of assets	13,285,812,632	13,243,491,876	13,243,136,349
3	Rate of return: **1 ÷ 2**	6.04%	7.03%	7.03%
4	Assumed rate of return	7.25%	7.25%	7.25%
5	Expected investment income: **2 x 4**	$963,221,416	$960,153,161	$960,127,385
6	**Actuarial gain/(loss): 1 - 5**	**$(160,625,863)**	**$(29,216,312)**	**$(29,190,536)**

Section 2: Actuarial Valuation Results

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial and valuation basis compared to the actual market value investment return for the last ten years, including averages over select time periods.

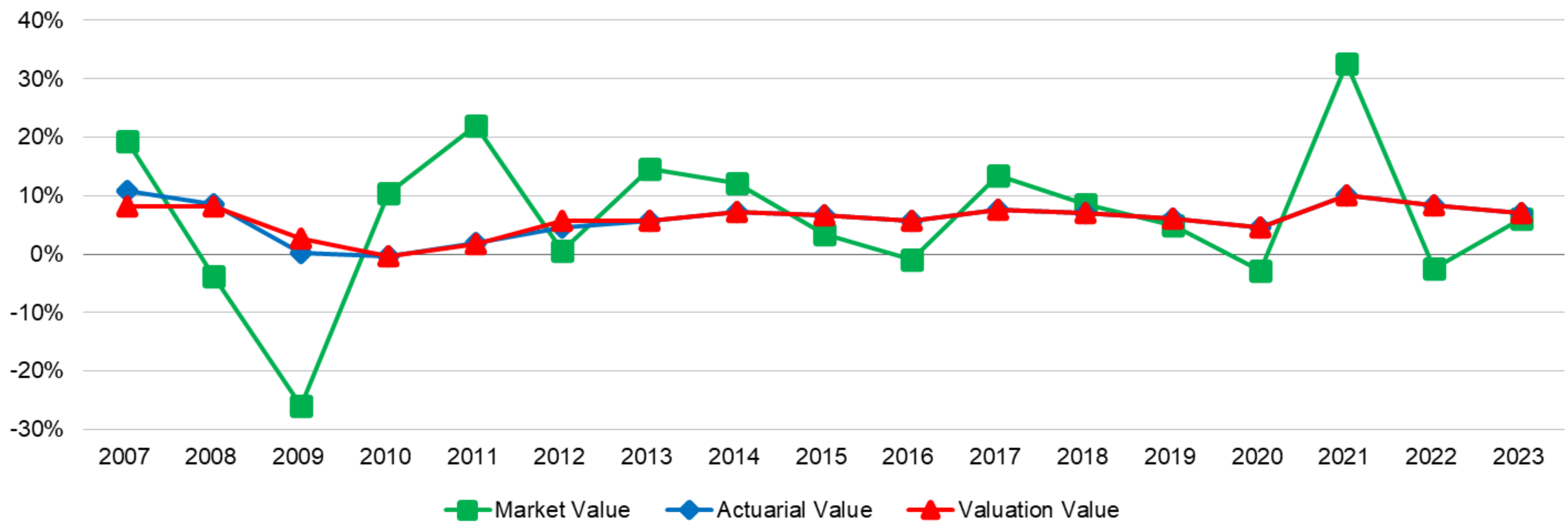
Investment Return – Market Value, Actuarial Value and Valuation Value: 2014 – 2023

	Market Value Investment Return		Actuarial Value Investment Return		Valuation Value Investment Return	
Year Ended June 30	**Amount**	**Percent**	**Amount**	**Percent**	**Amount**	**Percent**
2014	$868,148,759	12.20%	$524,022,197	7.26%	$524,022,197	7.26%
2015	280,841,907	3.51%	508,297,528	6.56%	508,297,528	6.56%
2016	(80,027,512)	(0.97%)	476,264,294	5.77%	476,264,294	5.77%
2017	1,098,198,034	13.40%	655,747,751	7.51%	655,747,751	7.51%
2018	797,480,630	8.60%	653,818,087	6.97%	653,818,087	6.97%
2019	502,752,677	4.99%	602,874,355	6.01%	602,874,355	6.01%
2020	(302,050,888)	(2.85%)	489,793,510	4.60%	489,793,510	4.60%
2021	3,353,791,858	32.61%	1,129,384,971	10.15%	1,129,384,970	10.15%
2022	(323,043,598)	(2.37%)	1,013,203,800	8.27%	1,013,203,800	8.27%
2023	802,595,553	6.04%	930,936,849	7.03%	930,936,849	7.03%
Most recent five-year geometric average return		**6.97%**		**7.20%**		**7.20%**
Most recent ten-year geometric average return		**7.09%**		**7.00%**		**7.00%**

Section 2: Actuarial Valuation Results

Section 2, Subsection B described the actuarial asset valuation method that gradually recognizes fluctuations in the market value rate of return. The goal of this is to stabilize the actuarial rate of return and to produce more level pension plan costs.

Market, Actuarial and Valuation Rates of Return for Years Ended June 30, 2007 – 2023



Section 2: Actuarial Valuation Results

Contributions

Contributions for the year ended June 30, 2023 totaled $742.4 million, compared to the projected amount of $705.2 million. This resulted in a gain of $38.6 million from contribution experience for the year, when adjusted for timing.

Non-Investment 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:

- the extent of turnover among participants,
- retirement experience (earlier or later than projected),
- mortality (more or fewer deaths than projected),
- the number of disability retirements (more or fewer than projected),
- salary increases (greater or smaller than projected), and
- cost-of-living adjustments (COLAs) higher or lower than anticipated.

The net loss from this other experience for the year ended June 30, 2023 amounted to $197.3 million, which is 1.2% of the Actuarial Accrued Liability. See *Section 2, Subsection E* for a detailed development of the Unfunded Actuarial Accrued Liability.

D. Other Changes in the Actuarial Accrued Liability

The Actuarial Accrued Liability as of June 30, 2023 is $16.4 billion, an increase of $0.8 billion, or 5.2%, from the Actuarial Accrued Liability as of the prior valuation date. The liability is expected to grow each year with Normal Cost and interest, and to decline due to benefit payments made. Additional fluctuations can occur due to actual experience that differs from expected (as discussed in the previous subsection).

Actuarial Assumptions and Methods

The results of this valuation reflect changes in the actuarial assumptions adopted by the Board for the June 30, 2023 valuation. The assumption changes resulted in a decrease of $122.72 million, or 0.7%, in the Actuarial Accrued Liability, a decrease in the average employer contribution rate of 0.59% of payroll, and a decrease in the average member rate of 0.45% of payroll.[1] Of the 0.59% of payroll decrease in the employer rate, 0.45% of payroll[1] is due to an decrease in the Normal Cost and 0.14% of payroll is due to an decrease in the UAAL rate.

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

Plan Provisions

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

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

[1] Includes the impact of three technical changes to 1. allocate the suspended COLA normal cost contributions for Tier 1 members with at least 30 years of service to the employers (consistent with how the suspended basic normal cost contributions are allocated), 2. reflect the timing of decrements in calculating the normal cost rate for each plan and 3. to use the individual version of the Entry Age Cost Method to determine the Normal Cost of the COLA benefits. These changes decreased the average member rate by 0.16% of payroll and decreased the average employer Normal Cost rate by 0.01% of payroll.

E. Development of Unfunded Actuarial Accrued Liability

Development for Year Ended June 30, 2023 ($ in '000s)

1	**UAAL at beginning of year[1]**		**$2,425,773**
2	Total Normal Cost at middle of year[2]		382,395
3	Expected administrative expenses		14,143
4	Expected employer and member contributions[3]		(705,177)
5	Interest		166,896
6	Expected Unfunded Actuarial Accrued Liability		$2,284,030
7	Changes due to:		
	a. Investment return less than expected (after "smoothing")	$29,191	
	b. Actual contributions more than expected[4]	(38,403)	
	c. Additional UAAL contributions made by LAFCO and Law Library	(150)	
	d. Individual salary increases higher than expected	195,214	
	e. Other experience losses	2,110	
	f. Impact of changes in actuarial assumptions	(122,715)	
	Total changes		$65,247
8	**UAAL at end of year[1]**		**$2,349,277**

Note: The sum of items 7d through 7e equals the "Net loss from other experience" shown in *Section 2, Subsection C.* Results include five withdrawn employers.

[1] Beginning of the year and end of the year values are reduced by $6.4 million and $6.1 million, respectively. These amounts represent the present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer and from the City of Big Bear Lake (including the Big Bear Fire Authority) to SBCERA for their transfers. These values also exclude the Survivor Benefit Reserve, which had a surplus of assets over liabilities of $62.6 million at the beginning of the year and $66.1 million at the end of the year.
[2] Excludes administrative expense load.
[3] Excludes contributions made to Survivor Benefit Reserve during the year ended June 30, 2023. Includes contributions towards administrative expenses.
[4] Mainly from scheduled one-year delay in implementing the lower contribution rates from June 30, 2022 valuation.

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, 2023, the average recommended employer contribution is 30.22% of compensation.

The Board sets the funding policy used to calculate the recommended contribution based on layered 20-year[1] amortization periods as a level percentage of payroll. See *Section 4, Exhibit 1* for further details on the funding policy. Based on this policy, there is no negative amortization and each amortization layer is fully funded in 20 years. As shown in the graphical projection of the UAAL amortization balances and payments found in *Section 3, Exhibit I*, because there is a combination of charge and credit amortization layers, the UAAL of the Plan is expected to be fully amortized by 2039, assuming all assumptions are realized and contribution are made in accordance with the funding policy.

The contribution requirement as of June 30, 2023 is based on the data previously described, the actuarial assumptions and Plan provisions described in *Section 4*, including all changes affecting future costs adopted at the time of the actuarial valuation, actuarial gains and losses, and changes in the actuarial assumptions.

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, 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.

[1] Changes in Unfunded Actuarial Accrued Liability 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 20-year periods. Changes in Unfunded Actuarial Accrued Liability as a result of plan amendments are generally amortized over separate 15-year periods.

Recommended Contribution (continued)

Average Recommended Employer Contribution for Year Ended June 30

		2023		2022	
		Amount ($ in '000s)	% of Projected Compensation[1]	Amount ($ in '000s)	% of Projected Compensation[1]
1	Total Normal Cost[2]	$402,604	22.21%	$389,717	23.42%
2	Expected member contributions	189,227	10.44%	182,162	10.95%
3	Employer Normal Cost: 1 - 2	$213,377	11.77%	$207,555	12.47%
4	Actuarial Accrued Liability[3]	16,403,551		15,588,492	
5	Valuation Value of Assets[4]	14,038,637		13,147,908	
6	Unfunded Actuarial Accrued Liability (UAAL): 4 - 5	2,364,914		2,440,584	
7	Payment on UAAL	$334,368	18.45%	$315,460	18.96%
8	Total average recommended employer contribution: 3 + 7	$547,745	30.22%	$523,015	31.43%
9	**Projected compensation**	**$1,812,216**		**$1,663,992**	

Note: Results exclude withdrawn employers.

[1] Contributions are assumed to be paid at the middle of the year.
[2] Includes administrative expense load.
[3] Excludes liabilities held for Survivor Benefit, Burial Allowance and Excess Earnings reserves, as well as liabilities for Withdrawn Employers.
[4] Excludes assets held for Survivor Benefit, Burial Allowance and Excess Earnings reserves, as well as assets for Withdrawn Employers. The June 30, 2023 and June 30, 2022 values include $6.1 million and $6.4 million, respectively. These amounts represent the associated present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer and from the City of Big Bear Lake (including the Big Bear Fire Authority) to SBCERA for their transfers. As of June 30, 2022, the amount from the Barstow Fire Protection District for their transfer has been fully paid.

Reconciliation of Average Recommended Employer Contribution Rate

The chart below details the changes in the average recommended employer contribution rate from the prior valuation to the current year's valuation.

Reconciliation of Average Recommended Employer Contribution Rate from June 30, 2022 to June 30, 2023

		Contribution Rate	Estimated Annual Dollar Amount[1] ($ in '000s)
1	**Average Recommended Employer Contribution as of June 30, 2022**	**31.43%**	**$523,015**
2	Effect of investment return less than expected (after "smoothing")	0.12%	$2,175
3	Effect of actual contributions more than expected[2]	(0.15%)	(2,718)
4	Effect of individual salary increases higher than expected	0.78%	14,135
5	Effect of amortizing prior year's UAAL over a larger than expected projected total payroll	(1.15%)	(20,840)
6	Effect of changes in demographics of members amongst tiers on Normal Cost	(0.25%)	(4,531)
7	Effect of other experience loss[3]	0.03%	47,201
8	Effect of changes in actuarial assumptions	(0.59%)	(10,692)
9	Total change	(1.21%)	24,730
10	**Average Recommended Employer Contribution as of June 30, 2023**	**30.22%**	**$547,745**

[1] Based on projected compensation for each valuation date shown.
[2] Mainly from scheduled one-year delay in implementing the lower contribution rates from June 30, 2022 valuation.
[3] Other differences in actual versus expected experience. Estimated annual dollar cost also reflects change in payroll from prior valuation.

Reconciliation of Average Recommended Member Contribution Rate

The chart below details the changes in the average recommended member contribution rate from the prior valuation to the current year's valuation.

Reconciliation of Average Recommended Member Contribution Rate from June 30, 2022 to June 30, 2023

		Contribution Rate	Estimated Annual Dollar Amount[1] ($ in '000s)
1	**Average Recommended Member Contribution as of June 30, 2022**	**10.95%**	**$182,162**
2	Effect of changes in member demographics amongst tiers[2]	(0.06%)	$15,220
3	Effect of changes in actuarial assumptions	(0.45%)	(8,155)
4	Total change	(0.51%)	$7,065
5	**Average Recommended Member Contribution as of June 30, 2023**	**10.44%**	**$189,227**

[1] Based on projected compensation for each valuation date shown.
[2] Includes changes in demographic profile of the active membership. Estimated annual dollar cost also reflects change in payroll from prior valuation.

Section 2: Actuarial Valuation Results

Recommended Employer Contribution Rates

	June 30, 2023 Actuarial Valuation Recommended Rates for FY 2024-25[1]				June 30, 2022 Actuarial Valuation Recommended Rates for FY 2023-24[2]			
	Basic	COLA	Total	Estimated Annual Dollar Amount[3] ($ in '000s)	Basic	COLA	Total	Estimated Annual Dollar Amount[3] ($ in '000s)
County General Tier 1								
Normal Cost	9.37%	2.01%	11.38%	$66,842	10.27%	1.82%	12.09%	$71,252
UAAL	8.39%	4.44%	12.83%	75,359	8.71%	4.74%	13.45%	79,267
Total Contributions	**17.76%**	**6.45%**	**24.21%**	**$142,201**	**18.98%**	**6.56%**	**25.54%**	**$150,519**
County General Tier 2								
Normal Cost	7.21%	1.53%	8.74%	$58,650	7.47%	1.61%	9.08%	$51,558
UAAL	8.39%	4.44%	12.83%	86,097	8.71%	4.74%	13.45%	76,372
Total Contributions	**15.60%**	**5.97%**	**21.57%**	**$144,747**	**16.18%**	**6.35%**	**22.53%**	**$127,930**
Safety Tier 1								
Normal Cost	19.60%	4.05%	23.65%	$41,928	20.21%	3.91%	24.12%	$42,043
UAAL	20.41%	17.35%	37.76%	66,943	20.27%	17.54%	37.81%	65,906
Total Contributions	**40.01%**	**21.40%**	**61.41%**	**$108,871**	**40.48%**	**21.45%**	**61.93%**	**$107,949**
Safety Tier 2								
Normal Cost	11.91%	3.15%	15.06%	$22,257	12.48%	3.29%	15.77%	$18,820
UAAL	20.41%	17.35%	37.76%	55,806	20.27%	17.54%	37.81%	45,124
Total Contributions	**32.32%**	**20.50%**	**52.82%**	**$78,063**	**32.75%**	**20.83%**	**53.58%**	**$63,944**
All County Members								
Normal Cost	9.84%	2.14%	11.98%	$189,677	10.55%	2.11%	12.66%	$183,673
UAAL	10.86%	7.09%	17.95%	284,205	11.05%	7.33%	18.38%	266,669
Total Contributions	**20.70%**	**9.23%**	**29.93%**	**$473,882**	**21.60%**	**9.44%**	**31.04%**	**$450,342**
Superior Court Tier 1								
Normal Cost	9.37%	2.01%	11.38%	$4,762	10.27%	1.82%	12.09%	$5,340
UAAL	12.53%	2.15%	14.68%	6,144	13.16%	2.47%	15.63%	6,903
Total Contributions	**21.90%**	**4.16%**	**26.06%**	**$10,906**	**23.43%**	**4.29%**	**27.72%**	**$12,243**
Superior Court Tier 2								
Normal Cost	7.21%	1.53%	8.74%	$3,826	7.47%	1.61%	9.08%	$3,188
UAAL	12.53%	2.15%	14.68%	6,426	13.16%	2.47%	15.63%	5,488
Total Contributions	**19.74%**	**3.68%**	**23.42%**	**$10,252**	**20.63%**	**4.08%**	**24.71%**	**$8,676**
SCAQMD Tier 1								
Normal Cost	10.17%	2.22%	12.39%	$5,229	11.44%	2.16%	13.60%	$6,063
UAAL	20.03%	9.58%	29.61%	12,496	20.97%	9.61%	30.58%	13,633
Total Contributions	**30.20%**	**11.80%**	**42.00%**	**$17,725**	**32.41%**	**11.77%**	**44.18%**	**$19,696**

Note: Applicable footnotes are shown on page 39.

Section 2: Actuarial Valuation Results

Recommended Employer Contribution Rates (continued)

	June 30, 2023 Actuarial Valuation Recommended Rates for FY 2024-25[1]				June 30, 2022 Actuarial Valuation Recommended Rates for FY 2023-24[2]			
	Basic	COLA	Total	Estimated Annual Dollar Amount[3] ($ in '000s)	Basic	COLA	Total	Estimated Annual Dollar Amount[3] ($ in '000s)
SCAQMD Tier 2								
Normal Cost	6.45%	1.39%	7.84%	$3,497	6.74%	1.49%	8.23%	$3,047
UAAL	20.03%	9.58%	29.61%	13,206	20.97%	9.61%	30.58%	11,319
Total Contributions	**26.48%**	**10.97%**	**37.45%**	**$16,703**	**27.71%**	**11.10%**	**38.81%**	**$14,366**
Other General Tier 1 (Non-LAFCO, Non-Law Library)								
Normal Cost	11.27%	2.52%	13.79%	$4,021	11.74%	2.22%	13.96%	$4,191
UAAL	15.48%	5.71%	21.19%	6,179	16.03%	5.91%	21.94%	6,585
Total Contributions	**26.75%**	**8.23%**	**34.98%**	**$10,200**	**27.77%**	**8.13%**	**35.90%**	**$10,776**
Other General Tier 2 (Non-LAFCO, Non-Law Library)								
Normal Cost	7.10%	1.51%	8.61%	$2,263	7.48%	1.61%	9.09%	$1,950
UAAL	15.48%	5.71%	21.19%	5,570	16.03%	5.91%	21.94%	4,708
Total Contributions	**22.58%**	**7.22%**	**29.80%**	**$7,833**	**23.51%**	**7.52%**	**31.03%**	**$6,657**
Other General Tier 1 (LAFCO)								
Normal Cost	11.27%	2.52%	13.79%	$55	11.74%	2.22%	13.96%	$55
UAAL[4]	10.56%	3.99%	14.55%	59	11.63%	4.60%	16.23%	63
Total Contributions	**21.83%**	**6.51%**	**28.34%**	**$114**	**23.37%**	**6.82%**	**30.19%**	**$118**
Other General Tier 2 (LAFCO)								
Normal Cost	7.10%	1.51%	8.61%	$6	7.48%	1.61%	9.09%	$6
UAAL[4]	10.56%	3.99%	14.55%	10	11.63%	4.60%	16.23%	11
Total Contributions	**17.66%**	**5.50%**	**23.16%**	**$16**	**19.11%**	**6.21%**	**25.32%**	**$17**
Other General Tier 1 (Law Library)								
Normal Cost	11.27%	2.52%	13.79%	$24	11.74%	2.22%	13.96%	$26
UAAL[5]	14.11%	5.16%	19.27%	34	16.03%	5.91%	21.94%	42
Total Contributions	**25.38%**	**7.68%**	**33.06%**	**$58**	**27.77%**	**8.13%**	**35.90%**	**$68**
Other General Tier 2 (Law Library)								
Normal Cost	7.10%	1.51%	8.61%	$17	7.48%	1.61%	9.09%	$16
UAAL[5]	14.11%	5.16%	19.27%	39	16.03%	5.91%	21.94%	39
Total Contributions	**21.21%**	**6.67%**	**27.88%**	**$56**	**23.51%**	**7.52%**	**31.03%**	**$56**
All Employers Combined								
Normal Cost	9.67%	2.10%	11.77%	$213,377	10.40%	2.07%	12.47%	$207,555
UAAL	11.52%	6.93%	18.45%	334,368	11.79%	7.17%	18.96%	315,460
Total Contributions	**21.19%**	**9.03%**	**30.22%**	**$547,745**	**22.19%**	**9.24%**	**31.43%**	**$523,015**

Note: Applicable footnotes are shown on page 39.

Recommended Employer Contribution Rates (continued)

[1] The June 30, 2023 Basic Normal Cost and UAAL rates shown for each cost group include an explicit administrative expense of 0.23% and 0.44% of payroll, respectively.
[2] The June 30, 2022 Basic Normal Cost and UAAL rates shown for each cost group include an explicit administrative expense of 0.22% and 0.41% of payroll, respectively.
[3] The projected compensation that is used to estimate the annual dollar amount shown on the prior pages as of June 30, 2023 and June 30, 2022 are as follows:

	June 30, 2023 Projected Compensation ($ in '000s)	June 30, 2022 Projected Compensation ($ in '000s)
County General Tier 1	$587,362	$589,344
County General Tier 2	671,057	567,824
Safety Tier 1	177,287	174,309
Safety Tier 2	147,790	119,346
Superior Court Tier 1	41,851	44,163
Superior Court Tier 2	43,771	35,113
SCAQMD Tier 1	42,203	44,582
SCAQMD Tier 2	44,599	37,014
Other General Tier 1 (Non-LAFCO, Non-Law Library)	29,158	30,014
Other General Tier 2 (Non-LAFCO, Non-Law Library)	26,287	21,456
Other General Tier 1 (LAFCO)	403	390
Other General Tier 2 (LAFCO)	69	69
Other General Tier 1 (Law Library)	176	189
Other General Tier 2 (Law Library	203	179
Total	**$1,812,216**	**$1,663,992**

[4] LAFCO made additional contributions towards their UAAL during 2018-2019, 2019-2020, 2020-2021, 2021-2022, and 2022-2023.
[5] Law Library made additional contributions towards their UAAL during 2022-2023.

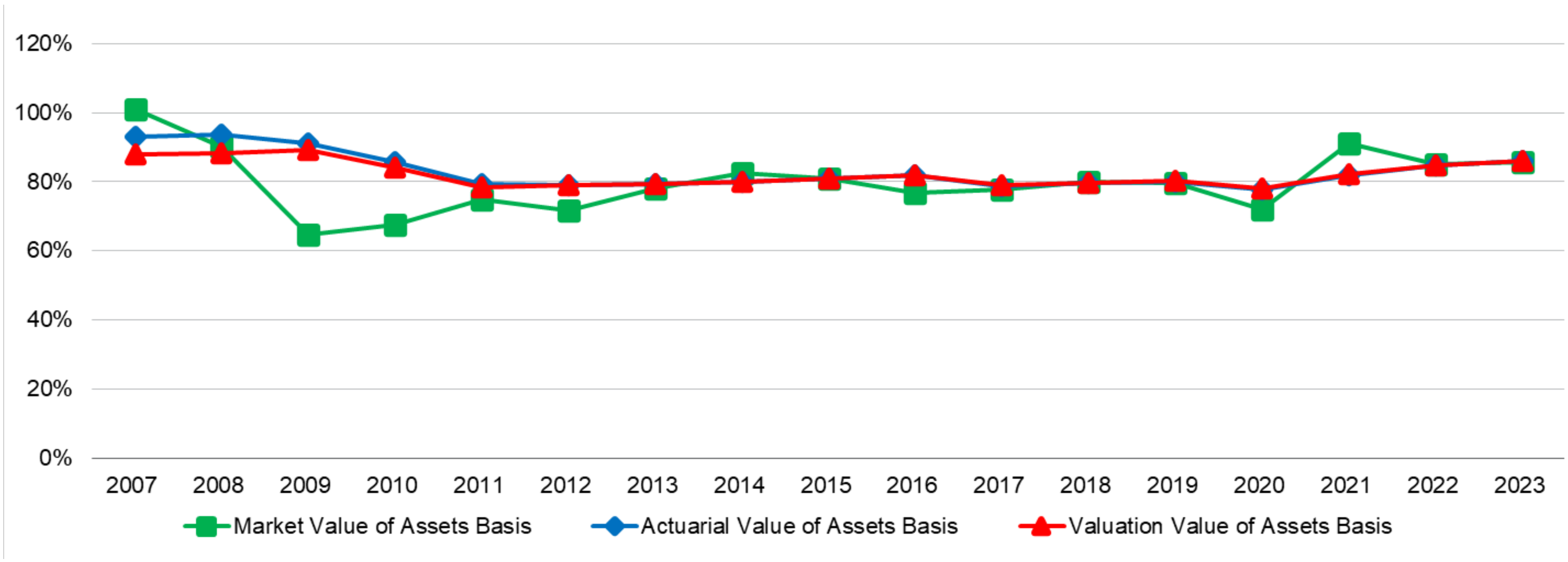
G. Funded Status

A commonly reported piece of information regarding the Plan's financial status is the funded ratio. These ratios compare the Market, Actuarial and Valuation Value of Assets to the Actuarial Accrued Liability of the Plan. Higher ratios indicate a relatively well-funded plan while lower ratios may indicate recent changes to actuarial assumptions, funding of the plan below actuarial requirements, poor asset performance, or a variety of other causes.

The chart below depicts a history of the funded ratio for the Plan. The chart on the next page shows the Plan's schedule of funding progress for the last ten years.

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

Funded Ratio for Years Ended June 30, 2007 – 2023



Section 2: Actuarial Valuation Results

Schedule of Funding Progress for Years Ended June 30, 2014 – 2023

Actuarial Valuation Date as of June 30	Valuation Value of Assets[1,2] (a)	Actuarial Accrued Liability (AAL)[3] (b)	Unfunded AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Projected Covered Payroll (c)	UAAL as a Percentage of Projected Covered Payroll [(b) - (a)] / (c)
2014	$7,751,308,595	$9,694,825,407	$1,943,516,812	79.95%	$1,267,666,810	153.31%
2015	8,255,352,815	10,214,472,907	1,959,120,092	80.82%	1,309,095,254	149.65%
2016	8,736,959,429	10,669,687,907	1,932,728,478	81.89%	1,346,408,201	143.55%
2017	9,385,976,561	11,928,309,718	2,542,333,157	78.69%	1,406,470,110	180.76%
2018	10,020,862,873	12,604,942,218	2,584,079,345	79.50%	1,477,131,264	174.94%
2019	10,642,400,992	13,304,683,218	2,662,282,226	79.99%	1,542,495,237	172.60%
2020	11,133,172,593	14,298,195,718	3,165,023,125	77.86%	1,587,324,431	199.39%
2021	12,258,924,608	14,957,435,405	2,698,510,797	81.96%	1,626,448,779	165.91%
2022	13,260,595,543	15,630,124,402	2,369,528,859	84.84%	1,663,990,875	142.40%
2023	14,157,370,073	16,446,671,652	2,289,301,579	86.08%	1,812,215,938	126.33%

1 Includes assets for Survivor Benefit, Burial Allowance, General Retiree Subsidy, and Excess Earnings reserves.
2 Excludes present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer and from the Barstow Fire Protection District and the City of Big Bear Lake (including the Big Bear Fire Authority) to SBCERA for their transfers, if any.
3 Includes liabilities held for Survivor Benefit, Burial Allowance, General Retiree Subsidy, and Excess Earnings reserves.

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 participants 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 Actuarial Present Value of Future Benefits of the Plan.

Second, this Actuarial Present Value of Future Benefits 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

	Year Ended	
	June 30, 2023 ($ in '000s)	**June 30, 2022 ($ in '000s)**
Actuarial Present Value of Future Benefits		
• Present value of benefits for retired members and beneficiaries	$9,200,759	$8,709,430
• Present value of benefits for inactive vested members[1]	707,293	639,994
• Present value of benefits for active members	9,612,492	9,317,717
Total Actuarial Present Value of Future Benefits	**$19,520,544**	**$18,667,141**
Current and future assets		
• Total Valuation Value of Assets[2]	$14,069,505	$13,177,825
• Present value of future contributions by members	1,483,985	1,476,274
• Present value of future employer contributions for:		
– Entry age Normal Cost	1,617,777	1,587,269
– Unfunded Actuarial Accrued Liability	2,349,277	2,425,773
Total of current and future assets	**$19,520,544**	**$18,667,141**

Note: Excludes assets and liabilities for Survivor Benefit, Burial Allowance and Excess Earnings reserves.

[1] Includes inactive members with member contributions on deposit.

[2] Includes $6.1 million and $6.4 million for June 30, 2023 and June 30, 2022 valuations, respectively, that represents the present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer and from the City of Big Bear Lake (including the Big Bear Fire Authority) to SBCERA for their transfers. As of June 30, 2022, the amount from the Barstow Fire Protection District for their transfer has been fully paid.

I. 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 payroll, 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 because it is based on the current level of assets.

The current AVR is about 7.8. This means that a 1% asset gain or loss (relative to the assumed investment return) translates to about 7.8% of one year's payroll. Because actuarial gains and losses are amortized over 20 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 payroll, 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.

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 9.1, but is 8.1 for General compared to 13.4 for Safety. This means, for example, that assumption changes will have a greater impact on employer contribution rates for Safety than for General.

Volatility Ratios for Years Ended 2014 – 2023

Year Ended June 30	Asset Volatility Ratio			Liability Volatility Ratio		
	General	Safety	Total	General	Safety	Total
2014	5.8	9.2	6.3	6.8	12.0	7.6
2015	5.8	9.0	6.3	6.9	12.3	7.8
2016	5.6	8.4	6.1	7.1	11.9	7.9
2017	6.1	9.2	6.6	7.6	12.8	8.5
2018	6.3	9.1	6.8	7.7	12.4	8.5
2019	6.3	9.5	6.9	7.7	12.9	8.6
2020	6.0	8.9	6.5	8.1	13.4	9.0
2021	7.7	11.5	8.4	8.3	13.6	9.2
2022	7.4	10.9	8.0	8.4	13.9	9.4
2023	7.2	10.6	7.8	8.1	13.4	9.1

J. Risk Assessment

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

This report does not contain a detailed analysis of the potential range of future measurements, but does include a concise discussion of some of the primary risks that may affect the plan's future financial condition. A more detailed assessment of the risks tailored to specific interests or concerns of the Board would provide the Board with a better understanding of the inherent risks in the plan that can inform both financial preparation and future decision-making. This assessment would enable us to work with the Board to highlight and illustrate particular risks or potential future outcomes they may be interested in discussing and could include scenario testing, sensitivity testing, stress testing and stochastic modeling.

This section provides descriptions and basic assessments of the primary risks that are likely to have an ongoing influence on the Plan's financial condition, 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 mismatch is evident in annual valuations: when asset values deviate from assumptions, they are typically independent from liability changes. The second mismatch 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 have no impact on asset levels. This risk is also discussed below.

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

  The investment return assumption is a long-term, static assumption for valuation purposes even though in reality market experience can be quite volatile in any given year. That volatility can cause significant changes in the financial condition of the plan, affecting both funded status and contribution rates. The inherent year-to-year volatility is reduced by smoothing through the Actuarial Value of Assets; however, investment experience can still have a sizable impact. As discussed in *Section 2, Subsection I, Volatility Ratios*, on page 43, a 1% asset gain or loss (relative to the assumed investment return) translates to about 7.8% of one-year's payroll. Because actuarial gains and losses are amortized over 20 years, there would be a 0.6% of payroll decrease (or increase) in the required contribution for each 1% asset gain or loss.

The single year market value rate of return over the last 10 years has ranged from a low of (2.85%) to a high of 32.61%.

- 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. Effective with the June 30, 2020 valuation, the Board has adopted benefit weighted mortality tables with the generational mortality projections.

- 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 demographic assumptions include retirement, termination and disability assumptions, and will likely vary in significance for different groups (for example, disability assumptions are typically more significant for safety groups).

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

Evaluation of Historical Trends

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

- The funded percentage on the Actuarial Value of Assets basis has increased from 80.0% to 86.1%. This is primarily due to contributions made to amortize the UAAL offset to some extent by the adoption of more conservative investment, mortality, and retirement assumptions throughout this time period. For a more detailed history, see *Section 2, Subsection G, Funded Status* starting on page 40.
- The geometric average investment return on the Valuation Value of Assets over the last 10 years was 7.00%. This includes a high of a 10.15% return in 2021 and a low of 4.60% in 2020. The average over the last 5 years was 7.20%. For more details, see the Investment Return table in *Section 2, Subsection C* on page 28.

- The primary source of the increase in UAAL was the strengthening of assumptions through multiple assumption changes. For example, the assumption changes in 2014 reduced the discount rate from 7.75% to 7.50% and updated mortality tables, adding $331 million in unfunded liability. The assumption changes in 2017 reduced the discount rate from 7.50% to 7.25% and again updated mortality tables, adding $663 million in unfunded liability. The assumption changes in 2020 again updated the mortality tables, updated the retirement rates, and also introduced a terminal pay cashout assumption, adding $313 million in unfunded liability. The assumption changes in 2023 reduced the unfunded liability by $123 million. For more details on the unfunded liability, changes see *Section 3, Exhibit H, Table of Amortization Bases* starting on page 76.
- The plan's funding policy effectively deals with these unfunded liabilities over time. This can be seen most clearly in *Section 3, Exhibit I, Projection of UAAL Balances and Payments* provided on pages 83 and 84.

Maturity Measures

In the last 10 years, the ratio of members in pay status to active participants has increased from 0.54 to 0.70. 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 Data* on page 17.

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. For the prior year, contributions received (net of administrative expenses) were about $34.1 million less than benefits paid. Note that 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, this plan currently has relatively low levels of negative cash flows. For more details on historical cash flows, see the Comparison of Contributions with Benefits in *Section 2, Subsection B, Financial Information* on page 21.

A further discussion of plan maturity measures and how they relate to changes in assets and liabilities is included in *Section 2, Subsection I, Volatility Ratios* on page 43.

Low-Default-Risk Obligation Measure (LDROM)

In December 2021, the Actuarial Standards Board issued a revision of Actuarial Standard of Practice No. 4 (ASOP 4) *Measuring Pension Obligations and Determining Pension Plan Costs or Contributions*. One of the revisions to ASOP 4 requires the disclosure of a Low-Default-Risk Obligation Measure (LDROM) when performing a funding valuation. The LDROM presented in this report is calculated using the same methodology and assumptions used to determine the Actuarial Accrued Liability (AAL) used for funding, except for the discount rate. The

Section 2: Actuarial Valuation Results

LDROM is required to be calculated using "a discount rate…derived from low-default-risk fixed income securities whose cash flows are reasonably consistent with the pattern of benefits expected to be paid in the future."

The LDROM is a calculation assuming a plan's assets are invested in an all-bond portfolio, generally lowering expected long-term investment returns. The discount rate selected and used for this purpose is the Bond Buyer General Obligation 20-year Municipal Bond Index Rate, published at the end of each week. The last published rate in June of the measurement period, by The Bond Buyer, is 3.65% for use effective June 30, 2023. 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 public pension plan liabilities. The LDROM is not used to determine a plan's funded status or Actuarially Determined Contribution Rate. The plan's expected return on assets, currently 7.25%, is used for these calculations.

As of June 30, 2023, the LDROM for the Plan excluding Survivor Benefit and Burial Allowance is $26.93 billion. The difference between the plan's AAL of $16.42 billion and the LDROM can be thought of as the increase in the AAL if the entire portfolio were invested in low-default-risk securities. Alternatively, this difference could also be viewed as representing the expected savings from investing in the plan's diversified portfolio compared to investing only in low-default-risk securities.

ASOP 4 requires commentary to help the intended user understand the significance of the LDROM with respect to the funded status of the plan, plan contributions, and the security of participant 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.

Section 3: Supplemental Information

Exhibit A: Table of Plan Coverage

Total Plan

Category	Year Ended June 30 2023	Year Ended June 30 2022	Change From Prior Year
Active members in valuation:			
• Number	22,084	21,276	3.8%
• Average age	43.7	44.1	-0.4
• Average years of service	10.4	10.8	-0.4
• Total projected compensation	$1,812,215,938	$1,663,990,875	8.9%
• Average projected compensation	$82,060	$78,210	4.9%
• Account balances	$1,356,942,705	$1,303,133,538	4.1%
• Total active vested members	13,795	13,904	-0.8%
Inactive vested members:[1]			
• Number	10,324	9,188	12.4%
• Average age	43.7	43.8	-0.1
Retired members:			
• Number in pay status	11,526	11,140	3.5%
• Average age	70.4	70.1	0.3
• Average monthly benefit	$4,423	$4,310	2.6%
Disabled members:			
• Number in pay status	1,700	1,681	1.1%
• Average age	65.7	65.3	0.4
• Average monthly benefit[2]	$4,462	$4,269	4.5%
Beneficiaries:			
• Number in pay status	2,163	2,057	5.2%
• Average age	72.6	72.3	0.3
• Average monthly benefit[3]	$2,358	$2,285	3.2%

[1] Includes inactive members with member contributions on deposit.
[2] Excludes Supplemental Disability Benefit amounts.
[3] Excludes Survivor Benefit amounts.

Exhibit A: Table of Plan Coverage (continued)

County General Tier 1

Category	Year Ended June 30: 2023	Year Ended June 30: 2022	Change From Prior Year
Active members in valuation:			
• Number	6,746	7,300	-7.6%
• Average age	51.8	51.2	0.6
• Average years of service	19.6	18.8	0.8
• Total projected compensation	$587,361,918	$589,343,511	-0.3%
• Average projected compensation	$87,068	$80,732	7.8%
• Account balances	$715,180,769	$713,967,049	0.2%
• Total active vested members	6,725	7,273	-7.5%
Inactive vested members:[1]			
• Number	3,899	3,866	0.9%
• Average age	50.5	49.9	0.6
Retired members:[2]			
• Number in pay status	8,647	8,427	2.6%
• Average age	71.3	71.0	0.3
• Average monthly benefit	$3,789	$3,679	3.0%
Disabled members:[2]			
• Number in pay status	759	768	-1.2%
• Average age	67.9	67.5	0.4
• Average monthly benefit[3]	$2,652	$2,584	2.6%
Beneficiaries:[2]			
• Number in pay status	1,478	1,420	4.1%
• Average age	74.2	73.9	0.3
• Average monthly benefit[4]	$1,985	$1,901	4.4%

[1] Includes inactive members with member contributions on deposit.
[2] Includes all General pre-January 1, 1996 retirees and beneficiaries.
[3] Excludes Supplemental Disability Benefit amounts.
[4] Excludes Survivor Benefit amounts.

Exhibit A: Table of Plan Coverage (continued)

County General Tier 2

Category	Year Ended June 30 2023	Year Ended June 30 2022	Change From Prior Year
Active members in valuation:			
• Number	10,280	9,132	12.6%
• Average age	39.7	39.5	0.2
• Average years of service	3.9	3.8	0.1
• Total projected compensation	$671,057,407	$567,824,152	18.2%
• Average projected compensation	$65,278	$62,180	5.0%
• Account balances	$194,792,576	$161,637,240	20.5%
• Total active vested members	3,559	3,181	11.9%
Inactive vested members:[1]			
• Number	4,959	4,026	23.2%
• Average age	38.9	38.6	0.3
Retired members:			
• Number in pay status	123	82	50.0%
• Average age	66.3	66.1	0.2
• Average monthly benefit	$846	$787	7.5%
Disabled members:			
• Number in pay status	22	17	29.4%
• Average age	53.1	49.5	3.6
• Average monthly benefit[2]	$2,084	$2,123	-1.8%
Beneficiaries:			
• Number in pay status	11	7	57.1%
• Average age	42.1	43.3	-1.2
• Average monthly benefit[3]	$1,102	$1,248	-11.7%

[1] Includes inactive members with member contributions on deposit.
[2] Excludes Supplemental Disability Benefit amounts.
[3] Excludes Survivor Benefit amounts.

Exhibit A: Table of Plan Coverage (continued)

Safety Tier 1

Category	Year Ended June 30 2023	Year Ended June 30 2022	Change From Prior Year
Active members in valuation:			
• Number	1,162	1,265	-8.1%
• Average age	46.0	45.5	0.5
• Average years of service	19.6	18.9	0.7
• Total projected compensation	$177,286,926	$174,308,764	1.7%
• Average projected compensation	$152,571	$137,793	10.7%
• Account balances	$198,533,891	$197,397,710	0.6%
• Total active vested members	1,160	1,263	-8.2%
Inactive vested members:[1]			
• Number	234	229	2.2%
• Average age	43.2	42.7	0.5
Retired members:			
• Number in pay status	1,205	1,168	3.2%
• Average age	65.1	65.0	0.1
• Average monthly benefit	$7,824	$7,635	2.5%
Disabled members:			
• Number in pay status	839	824	1.8%
• Average age	64.3	63.9	0.4
• Average monthly benefit	$6,235	$5,951	4.8%
Beneficiaries:			
• Number in pay status	500	466	7.3%
• Average age	68.7	68.1	0.6
• Average monthly benefit	$3,446	$3,430	0.5%

[1] Includes inactive members with member contributions on deposit.

Exhibit A: Table of Plan Coverage (continued)

Safety Tier 2

Category	Year Ended June 30 2023	Year Ended June 30 2022	Change From Prior Year
Active members in valuation:			
• Number	1,452	1,243	16.8%
• Average age	32.7	32.8	-0.1
• Average years of service	4.9	4.8	0.1
• Total projected compensation	$147,790,525	$119,345,710	23.8%
• Average projected compensation	$101,784	$96,014	6.0%
• Account balances	$85,517,959	$68,327,545	25.2%
• Total active vested members	758	603	25.7%
Inactive vested members:[1]			
• Number	355	307	15.6%
• Average age	33.2	32.5	0.7
Retired members:			
• Number in pay status	14	7	100.0%
• Average age	60.2	58.8	1.4
• Average monthly benefit	$1,522	$1,228	23.9%
Disabled members:			
• Number in pay status	20	13	53.8%
• Average age	50.6	49.6	1.0
• Average monthly benefit	$4,328	$4,115	5.2%
Beneficiaries:			
• Number in pay status	1	1	0.0%
• Average age	40.3	39.3	1.0
• Average monthly benefit	$3,113	$3,051	2.0%

[1] Includes inactive members with member contributions on deposit.

Exhibit A: Table of Plan Coverage (continued)

Superior Court Tier 1

Category	Year Ended June 30: 2023	Year Ended June 30: 2022	Change From Prior Year
Active members in valuation:			
• Number	477	522	-8.6%
• Average age	51.3	51.1	0.2
• Average years of service	19.9	19.2	0.7
• Total projected compensation	$41,850,769	$44,162,543	-5.2%
• Average projected compensation	$87,737	$84,603	3.7%
• Account balances	$58,842,884	$60,429,804	-2.6%
• Total active vested members	477	522	-8.6%
Inactive vested members:[1]			
• Number	191	178	7.3%
• Average age	50.1	49.2	0.9
Retired members:[2]			
• Number in pay status	445	415	7.2%
• Average age	68.4	68.0	0.4
• Average monthly benefit	$4,596	$4,492	2.3%
Disabled members:[2]			
• Number in pay status	28	27	3.7%
• Average age	62.6	61.3	1.3
• Average monthly benefit[3]	$3,273	$3,066	6.8%
Beneficiaries:[2]			
• Number in pay status	24	19	26.3%
• Average age	68.6	67.2	1.4
• Average monthly benefit[4]	$2,219	$2,109	5.2%

[1] Includes inactive members with member contributions on deposit.
[2] Excludes pre-January 1, 1996 retirees and beneficiaries.
[3] Excludes Supplemental Disability Benefit amounts.
[4] Excludes Survivor Benefit amounts.

Section 3: Supplemental Information

Exhibit A: Table of Plan Coverage (continued)

Superior Court Tier 2

Category	Year Ended June 30 2023	Year Ended June 30 2022	Change From Prior Year
Active members in valuation:			
• Number	624	511	22.1%
• Average age	38.6	39.3	-0.7
• Average years of service	4.4	4.5	-0.1
• Total projected compensation	$43,770,758	$35,112,635	24.7%
• Average projected compensation	$70,145	$68,714	2.1%
• Account balances	$14,733,630	$12,130,873	21.5%
• Total active vested members	282	241	17.0%
Inactive vested members:[1]			
• Number	139	102	36.3%
• Average age	38.8	37.5	1.3
Retired members:			
• Number in pay status	1	0	N/A
• Average age	57.5	N/A	N/A
• Average monthly benefit	$500	N/A	N/A
Disabled members:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A
Beneficiaries:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[3]	N/A	N/A	N/A

[1] Includes inactive members with member contributions on deposit.
[2] Excludes Supplemental Disability Benefit amounts.
[3] Excludes Survivor Benefit amounts.

Exhibit A: Table of Plan Coverage (continued)

SCAQMD Tier 1

Category	Year Ended June 30 2023	Year Ended June 30 2022	Change From Prior Year
Active members in valuation:			
• Number	311	347	-10.4%
• Average age	52.6	52.6	0.0
• Average years of service	21.3	21.2	0.1
• Total projected compensation	$42,203,059	$44,582,407	-5.3%
• Average projected compensation	$135,701	$128,480	5.6%
• Account balances	$43,968,886	$46,479,031	-5.4%
• Total active vested members	311	347	-10.4%
Inactive vested members:[1]			
• Number	94	97	-3.1%
• Average age	51.9	51.7	0.2
Retired members:[2]			
• Number in pay status	672	645	4.2%
• Average age	70.9	70.6	0.3
• Average monthly benefit	$7,204	$7,021	2.6%
Disabled members:[2]			
• Number in pay status	16	16	0.0%
• Average age	71.5	70.5	1.0
• Average monthly benefit[3]	$4,350	$4,265	2.0%
Beneficiaries:[2]			
• Number in pay status	104	102	2.0%
• Average age	73.0	73.0	0.0
• Average monthly benefit[4]	$2,745	$2,693	1.9%

[1] Includes inactive members with member contributions on deposit.
[2] Excludes pre-January 1, 1996 retirees and beneficiaries.
[3] Excludes Supplemental Disability Benefit amounts.
[4] Excludes Survivor Benefit amounts.

Exhibit A: Table of Plan Coverage (continued)

SCAQMD Tier 2

Category	Year Ended June 30 2023	Year Ended June 30 2022	Change From Prior Year
Active members in valuation:			
• Number	487	423	15.1%
• Average age	37.4	37.3	0.1
• Average years of service	4.2	3.9	0.3
• Total projected compensation	$44,598,669	$37,014,354	20.5%
• Average projected compensation	$91,578	$87,504	4.7%
• Account balances	$12,442,573	$9,795,980	27.0%
• Total active vested members	188	137	37.2%
Inactive vested members:[1]			
• Number	88	62	41.9%
• Average age	36.0	35.6	0.4
Retired members:			
• Number in pay status	3	2	50.0%
• Average age	63.0	64.8	-1.8
• Average monthly benefit	$882	$897	-1.7%
Disabled members:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A
Beneficiaries:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[3]	N/A	N/A	N/A

[1] Includes inactive members with member contributions on deposit.
[2] Excludes Supplemental Disability Benefit amounts.
[3] Excludes Survivor Benefit amounts.

Exhibit A: Table of Plan Coverage (continued)

Other General Tier 1

Category	Year Ended June 30: 2023	Year Ended June 30: 2022	Change From Prior Year
Active members in valuation:			
• Number	226	251	-10.0%
• Average age	51.0	50.4	0.6
• Average years of service	19.5	18.4	1.1
• Total projected compensation	$29,737,063	$30,592,874	-2.8%
• Average projected compensation	$131,580	$121,884	8.0%
• Account balances	$26,017,631	$27,449,536	-5.2%
• Total active vested members	226	250	-9.6%
Inactive vested members:[1]			
• Number	211	205	2.9%
• Average age	49.9	49.6	0.3
Retired members:[2]			
• Number in pay status	384	362	6.1%
• Average age	69.9	69.4	0.5
• Average monthly benefit	$4,373	$4,259	2.7%
Disabled members:[2]			
• Number in pay status	15	15	0.0%
• Average age	65.2	64.2	1.0
• Average monthly benefit[3]	$3,052	$2,992	2.0%
Beneficiaries:[2]			
• Number in pay status	42	40	5.0%
• Average age	71.8	71.2	0.6
• Average monthly benefit[4]	$2,029	$1,833	10.7%

1 Includes inactive members with member contributions on deposit.
2 Excludes pre-January 1, 1996 retirees and beneficiaries.
3 Excludes Supplemental Disability Benefit amounts.
4 Excludes Survivor Benefit amounts.

Exhibit A: Table of Plan Coverage (continued)

Other General Tier 2

Category	Year Ended June 30: 2023	Year Ended June 30: 2022	Change From Prior Year
Active members in valuation:			
• Number	319	282	13.1%
• Average age	38.3	38.4	-0.1
• Average years of service	3.8	3.6	0.2
• Total projected compensation	$26,558,843	$21,703,922	22.4%
• Average projected compensation	$83,257	$76,964	8.2%
• Account balances	$6,911,906	$5,518,770	25.2%
• Total active vested members	109	87	25.3%
Inactive vested members:[1]			
• Number	143	104	37.5%
• Average age	39.6	40.2	-0.6
Retired members:			
• Number in pay status	2	2	0.0%
• Average age	62.5	61.5	1.0
• Average monthly benefit	$1,229	$1,204	2.1%
Disabled members:			
• Number in pay status	1	1	0.0%
• Average age	48.9	47.9	1.0
• Average monthly benefit[2]	$2,199	$2,156	2.0%
Beneficiaries:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[3]	N/A	N/A	N/A

[1] Includes inactive members with member contributions on deposit.
[2] Excludes Supplemental Disability Benefit amounts.
[3] Excludes Survivor Benefit amounts.

Exhibit A: Table of Plan Coverage (continued)

Withdrawn Employers

Category	Year Ended June 30 2023	Year Ended June 30 2022	Change From Prior Year
Active members in valuation:			
• Number	0	0	N/A
• Average age	N/A	N/A	N/A
• Average years of service	N/A	N/A	N/A
• Total projected compensation	N/A	N/A	N/A
• Average projected compensation	N/A	N/A	N/A
• Account balances	N/A	N/A	N/A
• Total active vested members	0	0	N/A
Inactive vested members:[1]			
• Number	11	12	-8.3%
• Average age	53.4	53.4	0.0
Retired members:			
• Number in pay status	30	30	0.0%
• Average age	69.9	69.8	0.1
• Average monthly benefit	$3,066	$2,997	2.3%
Disabled members:			
• Number in pay status	0	0	N/A
• Average age	N/A	N/A	N/A
• Average monthly benefit[2]	N/A	N/A	N/A
Beneficiaries:			
• Number in pay status	3	2	50.0%
• Average age	72.5	67.7	4.8
• Average monthly benefit[3]	$994	$1,235	-19.5%

[1] Includes inactive members with member contributions on deposit.
[2] Excludes Supplemental Disability Benefit amounts.
[3] Excludes Survivor Benefit amounts.

Exhibit B: Members in Active Service as of June 30, 2023 by Age, Years of Service, and Average Projected Compensation

Total Plan

		Years of Service								
Age	Total	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	40 & over
Under 25	653	652	1	—	—	—	—	—	—	—
	$60,173	$60,196	$44,974	—	—	—	—	—	—	—
25 - 29	2,259	2,009	250	—	—	—	—	—	—	—
	$66,356	$63,898	$86,112	—	—	—	—	—	—	—
30 - 34	3,069	1,823	1,151	92	3	—	—	—	—	—
	$73,790	$65,943	$84,034	$99,083	$136,764	—	—	—	—	—
35 - 39	2,997	1,272	1,021	454	247	3	—	—	—	—
	$79,008	$67,951	$80,033	$92,612	$105,929	$142,774	—	—	—	—
40 - 44	3,086	929	761	463	723	207	3	—	—	—
	$86,402	$69,703	$80,664	$90,435	$104,252	$110,330	$137,052	—	—	—
45 - 49	3,027	692	571	390	633	594	145	2	—	—
	$89,488	$69,030	$79,712	$90,506	$97,135	$105,652	$122,824	$123,217	—	—
50 - 54	2,889	539	485	293	515	578	366	108	5	—
	$91,488	$72,507	$78,155	$81,821	$98,273	$101,457	$114,355	$106,560	$146,827	—
55 - 59	2,125	346	320	197	327	416	233	226	58	2
	$89,978	$73,845	$80,553	$84,611	$89,054	$97,414	$103,602	$102,746	$102,349	$133,470
60 - 64	1,444	205	239	138	212	297	139	155	52	7
	$84,704	$74,348	$75,225	$80,265	$84,166	$90,008	$87,020	$99,637	$103,661	$72,832
65 - 69	410	51	69	42	76	94	32	30	8	8
	$84,184	$76,182	$79,075	$92,717	$91,350	$77,718	$80,939	$83,869	$138,687	$102,002
70 & over	125	13	24	16	25	23	11	9	3	1
	$79,361	$69,488	$85,209	$65,514	$78,529	$85,211	$77,695	$96,955	$71,575	$58,466
Total	**22,084**	**8,531**	**4,892**	**2,085**	**2,761**	**2,212**	**929**	**530**	**126**	**18**
	$82,060	**$66,985**	**$80,963**	**$88,725**	**$97,760**	**$99,994**	**$107,378**	**$101,525**	**$106,230**	**$91,736**

Note: Age and years of service were projected from May 31, 2023 to June 30, 2023.

Exhibit B: Members in Active Service as of June 30, 2023 by Age, Years of Service, and Average Projected Compensation (continued)

County General Tier 1

		Years of Service								
Age	**Total**	**0 – 4**	**5 – 9**	**10 – 14**	**15 – 19**	**20 – 24**	**25 – 29**	**30 – 34**	**35 – 39**	**40 & over**
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25 – 29	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
30 – 34	56	5	11	38	2	—	—	—	—	—
	$78,093	$85,297	$79,595	$73,285	$143,192	—	—	—	—	—
35 – 39	472	12	35	290	135	—	—	—	—	—
	$80,686	$82,606	$83,182	$79,225	$83,005	—	—	—	—	—
40 – 44	1,014	23	47	342	470	131	1	—	—	—
	$86,848	$92,070	$92,430	$81,322	$89,964	$87,149	$90,859	—	—	—
45 – 49	1,320	20	33	287	462	430	87	1	—	—
	$88,495	$122,208	$95,013	$83,189	$85,615	$91,555	$95,613	$117,193	—	—
50 – 54	1,504	17	34	224	396	468	279	83	3	—
	$89,300	$100,301	$91,022	$71,674	$89,958	$91,779	$95,769	$94,586	$102,173	—
55 – 59	1,204	6	27	143	275	341	196	170	44	2
	$90,080	$144,810	$103,122	$79,085	$86,024	$91,165	$97,033	$91,250	$89,822	$133,470
60 – 64	842	4	11	107	180	256	121	117	39	7
	$83,502	$95,625	$54,225	$72,898	$80,805	$86,928	$83,706	$87,870	$97,735	$72,832
65 – 69	255	—	7	35	65	85	27	25	4	7
	$82,609	—	$81,324	$94,083	$89,025	$75,374	$73,622	$77,927	$93,400	$100,027
70 & over	79	—	4	10	24	21	9	8	2	1
	$74,554	—	$107,561	$62,467	$74,499	$75,888	$69,497	$78,989	$68,709	$58,466
Total	**6,746**	**87**	**209**	**1,476**	**2,009**	**1,732**	**720**	**404**	**92**	**17**
	$87,068	**$102,713**	**$89,673**	**$78,949**	**$86,973**	**$89,538**	**$92,901**	**$89,954**	**$93,276**	**$90,319**

Note: Age and years of service were projected from May 31, 2023 to June 30, 2023.

Exhibit B: Members in Active Service as of June 30, 2023 by Age, Years of Service, and Average Projected Compensation (continued)

County General Tier 2

		Years of Service								
Age	**Total**	**0 – 4**	**5 – 9**	**10 – 14**	**15 – 19**	**20 – 24**	**25 – 29**	**30 – 34**	**35 – 39**	**40 & over**
Under 25	457	455	1	—	—	—	—	—	—	—
	$54,130	$54,184	$44,974	—	—	—	—	—	—	—
25 – 29	1,539	1,443	96	—	—	—	—	—	—	—
	$58,103	$57,889	$61,327	—	—	—	—	—	—	—
30 – 34	2,121	1,455	658	8	—	—	—	—	—	—
	$64,891	$62,549	$69,955	$74,533	—	—	—	—	—	—
35 – 39	1,802	1,076	691	35	—	—	—	—	—	—
	$67,247	$64,900	$70,363	$77,910	—	—	—	—	—	—
40 – 44	1,368	785	557	26	—	—	—	—	—	—
	$68,335	$65,191	$72,113	$82,329	—	—	—	—	—	—
45 – 49	1,051	594	431	25	1	—	—	—	—	—
	$67,442	$64,344	$70,962	$76,852	$155,263	—	—	—	—	—
50 – 54	863	464	376	20	3	—	—	—	—	—
	$67,874	$66,655	$68,900	$69,853	$114,621	—	—	—	—	—
55 – 59	556	295	236	24	1	—	—	—	—	—
	$67,617	$66,598	$68,687	$69,251	$76,354	—	—	—	—	—
60 – 64	387	179	198	10	—	—	—	—	—	—
	$70,813	$71,455	$69,799	$79,396	—	—	—	—	—	—
65 – 69	104	48	54	2	—	—	—	—	—	—
	$74,913	$77,231	$73,804	$49,206	—	—	—	—	—	—
70 & over	32	11	17	3	1	—	—	—	—	—
	$73,545	$67,959	$69,313	$84,108	$175,250	—	—	—	—	—
Total	**10,280**	**6,806**	**3,315**	**153**	**6**	**—**	**—**	**—**	**—**	**—**
	$65,278	**$62,633**	**$70,116**	**$75,743**	**$125,121**	**—**	**—**	**—**	**—**	**—**

Note: Age and years of service were projected from May 31, 2023 to June 30, 2023.

Exhibit B: Members in Active Service as of June 30, 2023 by Age, Years of Service, and Average Projected Compensation (continued)

Safety Tier 1

		Years of Service								
Age	Total	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	40 & over
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25 – 29	1	1	—	—	—	—	—	—	—	—
	$110,885	$110,885	—	—	—	—	—	—	—	—
30 – 34	38	2	6	29	1	—	—	—	—	—
	$131,285	$102,246	$125,865	$134,664	$123,908	—	—	—	—	—
35 – 39	178	3	12	79	82	2	—	—	—	—
	$142,103	$125,771	$134,822	$136,289	$148,959	$158,851	—	—	—	—
40 – 44	318	5	24	43	181	63	2	—	—	—
	$147,220	$137,038	$139,791	$139,527	$144,515	$163,471	$160,149	—	—	—
45 – 49	310	—	18	28	105	107	51	1	—	—
	$153,526	—	$157,800	$135,707	$143,294	$159,448	$170,915	$129,241	—	—
50 – 54	217	—	8	13	49	62	71	13	1	—
	$166,051	—	$145,044	$132,778	$143,790	$162,722	$185,807	$196,695	$262,747	—
55 – 59	71	1	1	2	9	24	20	12	2	—
	$162,523	$87,277	$141,083	$140,742	$133,082	$159,263	$156,418	$191,541	$291,190	—
60 – 64	26	—	—	4	6	4	5	6	1	—
	$167,742	—	—	$157,521	$162,373	$164,696	$146,369	$206,018	$130,227	—
65 – 69	3	—	—	—	—	—	1	1	1	—
	$183,515	—	—	—	—	—	$142,089	$137,292	$271,165	—
70 & over	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
Total	**1,162**	**12**	**69**	**198**	**433**	**262**	**150**	**33**	**5**	**—**
	$152,571	**$122,096**	**$143,042**	**$136,915**	**$144,941**	**$161,249**	**$174,877**	**$192,672**	**$249,304**	**—**

Note: Age and years of service were projected from May 31, 2023 to June 30, 2023.

Exhibit B: Members in Active Service as of June 30, 2023
by Age, Years of Service, and Average Projected Compensation (continued)

Safety Tier 2

		Years of Service								
Age	Total	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	40 & over
Under 25	131	131	—	—	—	—	—	—	—	—
	$84,187	$84,187	—	—	—	—	—	—	—	—
25 – 29	441	321	120	—	—	—	—	—	—	—
	$93,580	$88,116	$108,194	—	—	—	—	—	—	—
30 – 34	512	161	341	10	—	—	—	—	—	—
	$104,033	$87,939	$111,065	$123,354	—	—	—	—	—	—
35 – 39	204	47	154	3	—	—	—	—	—	—
	$107,357	$90,324	$112,230	$124,069	—	—	—	—	—	—
40 – 44	66	17	46	3	—	—	—	—	—	—
	$111,277	$97,284	$115,734	$122,230	—	—	—	—	—	—
45 – 49	20	5	14	1	—	—	—	—	—	—
	$107,288	$101,142	$108,307	$123,766	—	—	—	—	—	—
50 – 54	31	10	19	2	—	—	—	—	—	—
	$137,063	$139,791	$137,221	$121,933	—	—	—	—	—	—
55 – 59	31	8	20	3	—	—	—	—	—	—
	$141,886	$151,041	$139,613	$132,626	—	—	—	—	—	—
60 – 64	15	4	11	—	—	—	—	—	—	—
	$135,576	$113,516	$143,598	—	—	—	—	—	—	—
65 – 69	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
70 & over	1	—	1	—	—	—	—	—	—	—
	$156,876	—	$156,876	—	—	—	—	—	—	—
Total	**1,452**	**704**	**726**	**22**	**—**	**—**	**—**	**—**	**—**	**—**
	$101,784	**$89,399**	**$113,107**	**$124,452**	**—**	**—**	**—**	**—**	**—**	**—**

Note: Age and years of service were projected from May 31, 2023 to June 30, 2023.

Exhibit B: Members in Active Service as of June 30, 2023 by Age, Years of Service, and Average Projected Compensation (continued)

Superior Court Tier 1

		Years of Service								
Age	**Total**	**0 – 4**	**5 – 9**	**10 – 14**	**15 – 19**	**20 – 24**	**25 – 29**	**30 – 34**	**35 – 39**	**40 & over**
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25 – 29	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
30 – 34	5	—	—	5	—	—	—	—	—	—
	$75,999	—	—	$75,999	—	—	—	—	—	—
35 – 39	36	—	—	19	17	—	—	—	—	—
	$77,871	—	—	$79,769	$75,750	—	—	—	—	—
40 – 44	81	3	2	24	41	11	—	—	—	—
	$80,307	$124,541	$57,249	$81,749	$78,408	$76,365	—	—	—	—
45 – 49	94	4	2	20	30	32	6	—	—	—
	$92,782	$144,622	$200,656	$94,626	$90,404	$79,003	$101,494	—	—	—
50 – 54	90	—	2	13	37	26	6	6	—	—
	$90,926	—	$126,200	$95,214	$90,338	$90,560	$87,638	$78,382	—	—
55 – 59	91	—	2	13	25	22	10	15	4	—
	$87,163	—	$86,272	$104,894	$85,380	$78,422	$92,417	$85,960	$80,587	—
60 – 64	63	—	—	5	16	18	7	12	5	—
	$87,305	—	—	$99,465	$81,123	$92,848	$71,793	$84,570	$103,251	—
65 – 69	14	—	—	2	6	3	2	—	1	—
	$105,935	—	—	$99,572	$88,433	$62,388	$145,965	—	$274,262	—
70 & over	3	—	—	—	—	1	2	—	—	—
	$114,178	—	—	—	—	$113,362	$114,585	—	—	—
Total	**477**	**7**	**8**	**101**	**172**	**113**	**33**	**33**	**10**	**—**
	$87,737	**$136,016**	**$117,594**	**$89,584**	**$84,420**	**$83,360**	**$93,412**	**$84,077**	**$111,286**	**—**

Note: Age and years of service were projected from May 31, 2023 to June 30, 2023.

Exhibit B: Members in Active Service as of June 30, 2023 by Age, Years of Service, and Average Projected Compensation (continued)

Superior Court Tier 2

		Years of Service								
Age	Total	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	40 & over
Under 25	33	33	—	—	—	—	—	—	—	—
	$49,573	$49,573	—	—	—	—	—	—	—	—
25 – 29	106	89	17	—	—	—	—	—	—	—
	$54,091	$53,119	$59,183	—	—	—	—	—	—	—
30 – 34	145	78	67	—	—	—	—	—	—	—
	$63,723	$59,709	$68,395	—	—	—	—	—	—	—
35 – 39	109	47	61	—	1	—	—	—	—	—
	$68,941	$64,118	$72,723	—	$64,863	—	—	—	—	—
40 – 44	68	34	33	1	—	—	—	—	—	—
	$76,119	$69,868	$81,407	$114,123	—	—	—	—	—	—
45 – 49	68	31	35	1	1	—	—	—	—	—
	$79,964	$81,081	$78,515	$62,665	$113,362	—	—	—	—	—
50 – 54	40	16	22	1	1	—	—	—	—	—
	$93,856	$93,662	$94,812	$74,760	$95,043	—	—	—	—	—
55 – 59	29	14	13	1	—	—	1	—	—	—
	$94,014	$90,024	$97,318	$98,994	—	—	$101,950	—	—	—
60 – 64	17	9	8	—	—	—	—	—	—	—
	$94,947	$76,492	$115,710	—	—	—	—	—	—	—
65 – 69	6	2	4	—	—	—	—	—	—	—
	$106,079	$51,101	$133,568	—	—	—	—	—	—	—
70 & over	3	1	1	1	—	—	—	—	—	—
	$100,681	$61,503	$175,250	$65,289	—	—	—	—	—	—
Total	**624**	**354**	**261**	**5**	**3**	**—**	**1**	**—**	**—**	**—**
	$70,145	**$63,657**	**$78,334**	**$83,166**	**$91,089**	**—**	**$101,950**	**—**	**—**	**—**

Note: Age and years of service were projected from May 31, 2023 to June 30, 2023.

Exhibit B: Members in Active Service as of June 30, 2023
by Age, Years of Service, and Average Projected Compensation (continued)

SCAQMD Tier 1

		Years of Service								
Age	Total	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	40 & over
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25 – 29	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
30 – 34	2	—	1	1	—	—	—	—	—	—
	$97,978	—	$62,589	$133,367	—	—	—	—	—	—
35 – 39	24	1	1	15	6	1	—	—	—	—
	$142,057	$123,918	$113,560	$153,332	$126,881	$110,620	—	—	—	—
40 – 44	39	1	3	13	21	1	—	—	—	—
	$130,557	$80,378	$112,870	$153,516	$121,256	$130,649	—	—	—	—
45 – 49	59	3	1	19	19	17	—	—	—	—
	$141,007	$111,883	$109,304	$143,017	$129,624	$158,487	—	—	—	—
50 – 54	55	3	2	11	14	14	7	3	1	—
	$137,514	$120,195	$152,446	$138,897	$136,764	$137,592	$155,825	$91,099	$164,866	—
55 – 59	70	—	2	4	10	20	4	22	8	—
	$139,122	—	$148,333	$134,135	$139,123	$127,549	$169,046	$145,799	$134,920	—
60 – 64	48	—	—	5	6	10	4	17	6	—
	$128,172	—	—	$107,208	$105,570	$120,288	$142,440	$138,431	$142,809	—
65 – 69	12	—	—	—	3	4	—	2	2	1
	$118,421	—	—	—	$134,903	$128,137	—	$98,748	$95,233	$115,830
70 & over	2	—	—	1	—	—	—	1	—	—
	$155,746	—	—	$70,804	—	—	—	$240,688	—	—
Total	**311**	**8**	**10**	**69**	**79**	**67**	**15**	**45**	**17**	**1**
	$135,701	**$112,566**	**$122,562**	**$142,284**	**$128,033**	**$136,242**	**$155,781**	**$139,386**	**$134,796**	**$115,830**

Note: Age and years of service were projected from May 31, 2023 to June 30, 2023.

Exhibit B: Members in Active Service as of June 30, 2023 by Age, Years of Service, and Average Projected Compensation (continued)

SCAQMD Tier 2

		Years of Service								
Age	Total	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	40 & over
Under 25	15	15	—	—	—	—	—	—	—	—
	$68,500	$68,500	—	—	—	—	—	—	—	—
25 – 29	100	88	12	—	—	—	—	—	—	—
	$86,154	$84,012	$101,868	—	—	—	—	—	—	—
30 – 34	121	74	47	—	—	—	—	—	—	—
	$90,829	$83,465	$102,422	—	—	—	—	—	—	—
35 – 39	101	59	41	1	—	—	—	—	—	—
	$96,225	$90,676	$102,571	$163,387	—	—	—	—	—	—
40 – 44	58	27	30	1	—	—	—	—	—	—
	$97,588	$90,032	$104,291	$100,503	—	—	—	—	—	—
45 – 49	38	19	19	—	—	—	—	—	—	—
	$99,574	$82,592	$116,555	—	—	—	—	—	—	—
50 – 54	21	17	4	—	—	—	—	—	—	—
	$85,884	$79,095	$114,739	—	—	—	—	—	—	—
55 – 59	19	9	10	—	—	—	—	—	—	—
	$95,515	$99,865	$91,600	—	—	—	—	—	—	—
60 – 64	10	4	5	1	—	—	—	—	—	—
	$81,728	$66,412	$89,308	$105,093	—	—	—	—	—	—
65 – 69	4	—	4	—	—	—	—	—	—	—
	$91,796	—	$91,796	—	—	—	—	—	—	—
70 & over	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
Total	**487**	**312**	**172**	**3**	**—**	**—**	**—**	**—**	**—**	**—**
	$91,578	**$84,795**	**$103,335**	**$122,994**	**—**	**—**	**—**	**—**	**—**	**—**

Note: Age and years of service were projected from May 31, 2023 to June 30, 2023.

Exhibit B: Members in Active Service as of June 30, 2023 by Age, Years of Service, and Average Projected Compensation (continued)

Other General Tier 1

		Years of Service								
Age	Total	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	40 & over
Under 25	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
25 – 29	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—
30 – 34	2	1	1	—	—	—	—	—	—	—
	$102,774	$122,350	$83,198	—	—	—	—	—	—	—
35 – 39	28	3	7	12	6	—	—	—	—	—
	$111,289	$124,552	$126,614	$102,154	$105,048	—	—	—	—	—
40 – 44	34	7	6	10	10	1	—	—	—	—
	$135,267	$158,447	$130,701	$138,025	$117,306	$152,445	—	—	—	—
45 – 49	37	—	5	8	15	8	1	—	—	—
	$120,938	—	$182,114	$106,330	$96,205	$138,121	$165,448	—	—	—
50 – 54	49	4	7	9	15	8	3	3	—	—
	$161,450	$232,690	$145,929	$190,109	$149,677	$164,997	$108,471	$119,089	—	—
55 – 59	36	2	3	6	7	9	2	7	—	—
	$133,546	$178,797	$133,724	$140,588	$94,919	$148,694	$145,034	$130,372	—	—
60 – 64	27	—	3	5	4	9	2	3	1	—
	$116,475	—	$117,946	$131,090	$98,155	$105,075	$81,583	$186,235	$75,382	—
65 – 69	10	—	—	2	2	2	2	2	—	—
	$111,283	—	—	$145,946	$110,306	$99,485	$84,119	$116,560	—	—
70 & over	3	—	—	1	—	1	—	—	1	—
	$121,760	—	—	$35,129	—	$252,844	—	—	$77,306	—
Total	**226**	**17**	**32**	**53**	**59**	**38**	**10**	**15**	**2**	**—**
	$131,580	**$170,205**	**$138,774**	**$131,957**	**$114,733**	**$139,819**	**$111,233**	**$137,446**	**$76,344**	**—**

Note: Age and years of service were projected from May 31, 2023 to June 30, 2023.

Exhibit B: Members in Active Service as of June 30, 2023 by Age, Years of Service, and Average Projected Compensation (continued)

Other General Tier 2

		Years of Service								
Age	Total	0 – 4	5 – 9	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	40 & over
Under 25	17	17	—	—	—	—	—	—	—	—
	$50,803	$50,803	—	—	—	—	—	—	—	—
25 – 29	72	67	5	—	—	—	—	—	—	—
	$65,953	$64,471	$85,802	—	—	—	—	—	—	—
30 – 34	67	47	19	1	—	—	—	—	—	—
	$77,448	$73,614	$86,670	$82,407	—	—	—	—	—	—
35 – 39	43	24	19	—	—	—	—	—	—	—
	$87,572	$88,623	$86,245	—	—	—	—	—	—	—
40 – 44	40	27	13	—	—	—	—	—	—	—
	$97,400	$101,968	$87,913	—	—	—	—	—	—	—
45 – 49	30	16	13	1	—	—	—	—	—	—
	$90,342	$100,094	$81,147	$53,833	—	—	—	—	—	—
50 – 54	19	8	11	—	—	—	—	—	—	—
	$101,490	$114,421	$92,086	—	—	—	—	—	—	—
55 – 59	18	11	6	1	—	—	—	—	—	—
	$121,979	$111,147	$132,959	$175,250	—	—	—	—	—	—
60 – 64	9	5	3	1	—	—	—	—	—	—
	$108,384	$132,049	$85,533	$58,608	—	—	—	—	—	—
65 – 69	2	1	—	1	—	—	—	—	—	—
	$43,876	$75,970	—	$11,782	—	—	—	—	—	—
70 & over	2	1	1	—	—	—	—	—	—	—
	$99,305	$94,283	$104,327	—	—	—	—	—	—	—
Total	**319**	**224**	**90**	**5**	**—**	**—**	**—**	**—**	**—**	**—**
	$83,257	**$80,773**	**$89,820**	**$76,376**	**—**	**—**	**—**	**—**	**—**	**—**

Note: Age and years of service were projected from May 31, 2023 to June 30, 2023.

Exhibit C: Reconciliation of Member Data

	Active Members	Inactive Vested Members[1]	Retired Members	Disabled Members[2]	Beneficiaries	Total
Number as of June 30, 2022	**21,276**	**9,188**	**11,140**	**1,681**	**2,057**	**45,342**
• New members	2,964	360	N/A	N/A	197	3,521
• Terminations	(1,332)	1,332	N/A	N/A	N/A	0
• Contribution refunds	(334)	(271)	N/A	N/A	N/A	(605)
• Retirements	(545)	(140)	685	N/A	N/A	0
• New disabilities	(30)	(4)	(34)	68	N/A	0
• Return to work	121	(118)	(3)	0	N/A	0
• Died with or without beneficiary	(32)	(23)	(263)	(49)	(84)	(451)
• Data adjustments	(4)	0	1	0	(7)	(10)
Number as of June 30, 2023	**22,084**	**10,324**	**11,526**	**1,700**	**2,163**	**47,797**

[1] Includes inactive members with member contributions on deposit.
[2] As of June 30, 2023 includes 320 members receiving a non-service connected disability and 1,380 members receiving a service connected disability.

Exhibit D: Summary Statement of Income and Expenses on a Market Value Basis

		Year Ended June 30, 2023		Year Ended June 30, 2022
Net assets at market value at the beginning of the year		**$13,302,916,299**		**$13,637,492,762**
Contribution income:				
• Employer contributions	$555,891,684		$550,345,800	
• Member contributions	188,090,607		178,892,641	
• Less administrative expenses	(17,359,515)		(14,323,302)	
Net contribution income		$726,622,776		$714,915,139
Investment income:				
• Interest, dividends, asset appreciation and other income	$963,166,233		$(120,387,552)	
• Less investment expenses	(160,570,680)		(202,656,046)	
Net investment income		$802,595,553		$(323,043,598)
Total income available for benefits		**$1,529,218,329**		**$391,871,541**
Less benefit payments[1]		$(760,785,095)		$(726,448,004)
Change in net assets at market value		**$768,433,234**		**$(334,576,463)**
Net assets at market value at the end of the year		**$14,071,349,533**		**$13,302,916,299**

Note: Results may be slightly off due to rounding.

[1] The June 30, 2022 amount includes $12,293,237 in refunds of member contributions previously paid in conjunction with the reclassification of pay items for inclusion in compensation earnable.

Exhibit E: Summary Statement of Plan Assets

	June 30, 2023		June 30, 2022	
Cash equivalents		$1,588,755,744		$2,227,136,593
Accounts receivable:				
• Securities sold	$211,472,491		$60,776,113	
• Accrued interest and dividends	28,067,913		16,879,729	
• Employer contributions	33,098,927		29,883,893	
• Other receivable	1,630,661		27,377,991	
Total accounts receivable		$274,269,992		$134,917,726
Investments:				
• Equities	$2,920,297,165		$2,300,459,857	
• Fixed income	1,671,463,785		1,486,649,896	
• Real estate	8,522,383		7,251,305	
• Domestic alternatives	6,071,584,871		5,562,766,373	
• Foreign alternatives	1,820,482,391		1,790,788,892	
• Other	9,852,587		7,522,214	
• Investments received on securities lending	48,514,972		29,918,585	
Total investments at market value		$12,550,718,154		$11,185,357,122
Total assets		$14,413,743,890		$13,547,411,441
Liabilities:				
• Securities lending	$(48,514,972)		$(29,918,585)	
• Payable for securities purchased	(257,268,298)		(174,334,825)	
• Securities options payable	0		0	
• Other liabilities	(36,611,087)		(40,241,732)	
Total liabilities		$(342,394,357)		$(244,495,142)
Net assets at market value		**$14,071,349,533**		**$13,302,916,299**
Net assets at actuarial value		**$14,157,370,073**		**$13,260,595,543**
Net assets at valuation value[1]		**$14,163,143,392**		**$13,266,563,965**

Note: Results may be slightly off due to rounding.

[1] The June 30, 2023 and June 30, 2022 values include $6.1 million and $6.4 million, respectively. These amounts represent the associated present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer and from the City of Big Bear Lake (including the Big Bear Fire Authority) to SBCERA for their transfers. As of June 30, 2022, the amount from the Barstow Fire Protection District for their transfer has been fully paid.

Exhibit F: Summary of Reported Reserve Information

	June 30, 2023	June 30, 2022
Used in Development of Valuation Value of Assets:		
• Member Deposit Reserve	$1,904,197,302	$1,791,121,580
• Current Service Reserve	3,700,223,290	3,450,294,403
• Contra Account	(4,400,275,545)	(4,038,275,084)
• Pension Reserve	6,193,284,397	5,846,714,673
• Cost-of-Living Reserve	3,196,433,373	2,937,530,809
• Annuity Reserve	3,465,736,466	3,179,168,889
• Supplemental Disability Reserve	3,808,099	4,914,536
• Survivor Benefit Reserve	93,638,039	88,739,335
Subtotal: Valuation Value of Assets[1]	$14,157,045,421	$13,260,209,141
Not Used in Development of Valuation Value of Assets:		
• Burial Allowance Reserve	$324,652	$386,402
• Restricted Balance Reserved for Deficiencies	0	0
• Additional Contingency Reserve	0	0
• Undesignated Excess Earnings	0	0
Subtotal	$324,652	$386,402
Subtotal: Actuarial Value of Assets	$14,157,370,073	$13,260,595,543
• Net Unrecognized Gains/(Losses)	(86,020,540)	42,320,756
Net assets at market value	**$14,071,349,533**	**$13,302,916,299**

Note: Results may be slightly off due to rounding.

[1] The June 30, 2023 and June 30, 2022 values exclude $6.1 million and $6.4 million, respectively. These amounts represent the associated present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer and from the City of Big Bear Lake (including the Big Bear Fire Authority) to SBCERA for their transfers. As of June 30, 2022, the amount from the Barstow Fire Protection District for their transfer has been fully paid.

Exhibit G: Development of the Fund through June 30, 2023

Year Ended June 30	Employer Contributions	Member Contributions	Other[1]	Administrative and Other Expenses	Net Investment Return[2]	Benefit Payments	Actuarial Value of Assets at Year-End
2014	$330,330,400	$89,860,998	$0	$0	$524,022,197	$(397,823,478)	$7,751,308,595
2015	315,239,709	117,899,734	0	(8,917,907)	508,297,528	(428,474,844)	8,255,352,815
2016	340,511,616	139,132,004	0	(10,233,264)	476,264,294	(464,068,036)	8,736,959,429
2017	360,477,890	143,858,526	0	(13,163,171)	655,747,751	(497,903,864)	9,385,976,561
2018	378,667,309	149,478,284	4,311,546	(12,092,067)	653,818,087	(539,296,847)	10,020,862,873
2019	446,294,977	163,551,784	0	(12,675,054)	602,874,355	(578,507,943)	10,642,400,992
2020	467,985,568	169,182,925	0	(14,626,796)	489,793,510	(621,563,606)	11,133,172,593
2021	498,747,129	172,953,457	0	(14,511,411)	1,129,384,971	(660,822,131)	12,258,924,608
2022	550,345,800	178,892,641	0	(14,323,302)	1,013,203,800	(726,448,004)[3]	13,260,595,543
2023	555,891,684	188,090,607	0	(17,359,515)	930,936,849	(760,785,095)	14,157,370,073

Note: Results may be slightly off due to rounding.

[1] Represents asset transfer from CalPERS related to the transfer of Big Bear Fire Authority employees.
[2] Net of investment fees and administrative expenses prior to 2015. Starting in 2015, administrative expenses are included in the previous column.
[3] Includes $12,293,237 in refunds of member contributions previously paid in conjunction with the reclassification of pay items for inclusion in compensation earnable.

Exhibit H: Table of Amortization Bases

County General

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Amortization Amount ($ in '000s)
Actuarial Loss	June 30, 2003	$246,030	20	$27,654	1[1]	$28,721
Actuarial Loss	June 30, 2004	132,394	20	18,649	1	19,368
POB Credit	June 30, 2004	(306,553)	20	(43,177)	1	(44,842)
Actuarial Loss	June 30, 2005	58,722	20	15,631	2	8,281
Assumption Change	June 30, 2005	55,608	20	14,806	2	7,844
Actuarial Gain	June 30, 2006	(12,582)	20	(4,734)	3	(1,706)
Actuarial Gain	June 30, 2007	(32,313)	20	(15,283)	4	(4,212)
Actuarial Gain	June 30, 2008	(10,019)	20	(5,587)	5	(1,256)
Assumption Change	June 30, 2008	(9,274)	20	(5,172)	5	(1,163)
Actuarial Loss	June 30, 2009	116,654	20	73,587	6	14,059
Actuarial Loss	June 30, 2010	283,312	20	196,625	7	32,827
Actuarial Loss	June 30, 2011	169,657	20	126,933	8	18,902
Assumption Change	June 30, 2011	199,268	20	149,074	8	22,200
Actuarial Loss	June 30, 2012	70,289	20	55,926	9	7,545
Burial Allowance Method Change	June 30, 2012	2,391	20	1,900	9	256
Actuarial Loss	June 30, 2013	36,154	20	30,233	10	3,741
Actuarial Gain	June 30, 2014	(143,394)	20	(124,693)	11	(14,294)
Assumption Change	June 30, 2014	186,100	20	161,828	11	18,550
Actuarial Gain	June 30, 2015	(34,419)	20	(30,968)	12	(3,315)
Actuarial Gain	June 30, 2016	(19,721)	20	(18,219)	13	(1,834)
Actuarial Gain	June 30, 2017	(23,495)	20	(22,164)	14	(2,110)
Assumption Change	June 30, 2017	391,172	20	368,963	14	35,130
Actuarial Loss	June 30, 2018	36,456	20	35,016	15	3,169
Actuarial Loss	June 30, 2019	94,317	20	91,868	16	7,937
Actuarial Loss	June 30, 2020	171,584	20	168,820	17	13,977
Entry Age Method Change	June 30, 2020	(12,138)	20	(11,938)	17	(988)
Assumption Change	June 30, 2020	200,613	20	197,391	17	16,342
Actuarial Gain	June 30, 2021	(162,927)	20	(161,634)	18	(12,866)
Implementation of Alameda Decision	June 30, 2021	(25,254)	15	(24,153)	13	(2,431)
Actuarial Gain	June 30, 2022	(141,889)	20	(141,519)	19	(10,863)
Implementation of Alameda Decision[2]	June 30, 2022	2,415	14	2,359	13	237
Actuarial Loss	June 30, 2023	92,809	20	92,809	20	6,888
Assumption Change	June 30, 2023	(109,455)	20	(109,455)	20	(8,123)
County General Subtotal				**$1,111,376**		**$155,971**

1 Reflects the adjustment to UAAL amortization periods made in 2020.
2 Reflects refunds of member contributions due to implementation of the Alameda Decision. The amortization period has been set equal to the remaining period for the related 2021 amortization layer.

Exhibit H: Table of Amortization Bases (continued)

Superior Court

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Amortization Amount ($ in '000s)
Actuarial Loss	June 30, 2003	$14,458	20	$1,627	1[1]	$1,690
Actuarial Loss	June 30, 2004	6,840	20	966	1	1,003
Actuarial Loss	June 30, 2005	3,451	20	917	2	486
Assumption Change	June 30, 2005	3,269	20	870	2	461
Actuarial Loss	June 30, 2006	4,889	20	1,841	3	663
Actuarial Loss	June 30, 2007	4,076	20	1,929	4	532
Actuarial Loss	June 30, 2008	729	20	411	5	92
Assumption Change	June 30, 2008	(1,520)	20	(854)	5	(192)
Actuarial Loss	June 30, 2009	6,270	20	3,957	6	756
Actuarial Loss	June 30, 2010	10,935	20	7,597	7	1,268
Actuarial Loss	June 30, 2011	8,620	20	6,451	8	961
Assumption Change	June 30, 2011	10,323	20	7,716	8	1,149
Actuarial Loss	June 30, 2012	3	20	0	9	0
Burial Allowance Method Change	June 30, 2012	68	20	39	9	5
Actuarial Gain	June 30, 2013	(2,565)	20	(2,141)	10	(265)
Actuarial Gain	June 30, 2014	(5,786)	20	(5,037)	11	(577)
Assumption Change	June 30, 2014	10,501	20	9,136	11	1,047
Actuarial Gain	June 30, 2015	(307)	20	(283)	12	(30)
Actuarial Loss	June 30, 2016	11,583	20	10,684	13	1,076
Actuarial Gain	June 30, 2017	(1,529)	20	(1,441)	14	(137)
Assumption Change	June 30, 2017	37,250	20	35,132	14	3,345
Actuarial Loss	June 30, 2018	3,765	20	3,602	15	326
Actuarial Loss	June 30, 2019	2,285	20	2,235	16	193
Actuarial Loss	June 30, 2020	14,836	20	14,590	17	1,208
Entry Age Method Change	June 30, 2020	(1,751)	20	(1,713)	17	(142)
Assumption Change	June 30, 2020	14,594	20	14,374	17	1,190
Actuarial Gain	June 30, 2021	(4,639)	20	(4,596)	18	(366)
Implementation of Alameda Decision	June 30, 2021	(19,413)	15	(18,562)	13	(1,869)
Actuarial Gain	June 30, 2022	(17,892)	20	(17,849)	19	(1,370)
Implementation of Alameda Decision[2]	June 30, 2022	404	14	395	13	40
Actuarial Loss	June 30, 2023	2,576	20	2,576	20	191
Assumption Change	June 30, 2023	(7,319)	20	(7,319)	20	(543)
Superior Court Subtotal				**$67,250**		**$12,191**

[1] Reflects the adjustment to UAAL amortization periods made in 2020.

[2] Reflects refunds of member contributions due to implementation of the Alameda Decision. The amortization period has been set equal to the remaining period for the related 2021 amortization layer.

Section 3: Supplemental Information

Exhibit H: Table of Amortization Bases (continued)

Other General

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Amortization Amount ($ in '000s)
Actuarial Loss	June 30, 2003	$9,507	20	$1,068	1[1]	$1,109
Actuarial Loss	June 30, 2004	5,542	20	779	1	809
Actuarial Loss	June 30, 2005	6,630	20	1,772	2	939
Assumption Change	June 30, 2005	(490)	20	(131)	2	(69)
Actuarial Loss	June 30, 2006	2,390	20	888	3	320
Actuarial Loss	June 30, 2007	1,995	20	944	4	260
Actuarial Loss	June 30, 2008	4,106	20	2,284	5	514
Assumption Change	June 30, 2008	(278)	20	(157)	5	(35)
Actuarial Loss	June 30, 2009	5,568	20	3,511	6	671
Actuarial Loss	June 30, 2010	11,345	20	7,883	7	1,316
Actuarial Loss	June 30, 2011	9,098	20	6,807	8	1,014
Assumption Change	June 30, 2011	8,263	20	6,185	8	921
Actuarial Loss	June 30, 2012	2,766	20	2,193	9	296
Burial Allowance Method Change	June 30, 2012	71	20	39	9	5
Actuarial Loss	June 30, 2013	4,155	20	3,489	10	432
Actuarial Gain	June 30, 2014	(6,086)	20	(5,292)	11	(607)
Assumption Change	June 30, 2014	7,714	20	6,704	11	768
Actuarial Loss	June 30, 2015	2,754	20	2,460	12	263
Actuarial Loss	June 30, 2016	6,644	20	6,142	13	618
Actuarial Loss	June 30, 2017	1,676	20	1,584	14	151
Assumption Change	June 30, 2017	22,659	20	21,383	14	2,036
Actuarial Loss	June 30, 2018	9,110	20	8,757	15	793
Actuarial Loss	June 30, 2019	8,108	20	7,907	16	683
Actuarial Loss	June 30, 2020	6,666	20	6,559	17	543
Entry Age Method Change	June 30, 2020	(5,451)	20	(5,366)	17	(444)
Assumption Change	June 30, 2020	9,798	20	9,642	17	798
Actuarial Loss	June 30, 2021	3,481	20	3,447	18	274
Implementation of Alameda Decision	June 30, 2021	(25,526)	15	(24,413)	13	(2,458)
Actuarial Gain	June 30, 2022	(7,445)	20	(7,430)	19	(570)
Implementation of Alameda Decision[2]	June 30, 2022	3,414	14	3,326	13	335
Actuarial Loss	June 30, 2023	3,874	20	3,874	20	288
Assumption Change	June 30, 2023	(4,491)	20	(4,491)	20	(333)
Other General Subtotal				**$72,347**		**$11,640**

[1] Reflects the adjustment to UAAL amortization periods made in 2020.

[2] Reflects refunds of member contributions due to implementation of the Alameda Decision. The amortization period has been set equal to the remaining period for the related 2021 amortization layer.

Section 3: Supplemental Information

Exhibit H: Table of Amortization Bases (continued)

SCAQMD

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Amortization Amount ($ in '000s)
Actuarial Loss	June 30, 2003	$27,792	20	$3,126	1[1]	$3,247
Actuarial Loss	June 30, 2004	24,821	20	3,505	1	3,640
POB Credit	June 30, 2004	(46,375)	20	(6,546)	1	(6,798)
Actuarial Loss	June 30, 2005	11,432	20	3,050	2	1,616
Assumption Change	June 30, 2005	(3,613)	20	(968)	2	(513)
Actuarial Gain	June 30, 2006	(1,328)	20	(500)	3	(180)
UAAL Prepayment	December 31, 2006	(10,000)	20	(4,260)	3.5	(1,329)
Actuarial Loss	June 30, 2007	12,093	20	5,722	4	1,577
Actuarial Loss	June 30, 2008	16,095	20	8,969	5	2,017
Assumption Change	June 30, 2008	1,425	20	794	5	179
Actuarial Loss	June 30, 2009	8,947	20	5,642	6	1,078
Actuarial Loss	June 30, 2010	34,808	20	24,161	7	4,034
Actuarial Loss	June 30, 2011	26,766	20	20,016	8	2,981
Assumption Change	June 30, 2011	21,411	20	16,012	8	2,384
Actuarial Loss	June 30, 2012	6,060	20	4,834	9	652
Burial Allowance Method Change	June 30, 2012	131	20	70	9	9
Actuarial Loss	June 30, 2013	4,599	20	3,835	10	475
Actuarial Gain	June 30, 2014	(39,137)	20	(34,047)	11	(3,903)
Assumption Change	June 30, 2014	19,750	20	17,178	11	1,969
Actuarial Loss	June 30, 2015	29,235	20	26,291	12	2,815
Actuarial Loss	June 30, 2016	13,576	20	12,544	13	1,263
Actuarial Loss	June 30, 2017	11,818	20	11,153	14	1,062
Assumption Change	June 30, 2017	38,515	20	36,320	14	3,458
Actuarial Loss	June 30, 2018	20,453	20	19,634	15	1,777
Actuarial Loss	June 30, 2019	16,556	20	16,141	16	1,395
Actuarial Loss	June 30, 2020	27,368	20	26,934	17	2,230
Entry Age Method Change	June 30, 2020	(1,218)	20	(1,205)	17	(100)
Assumption Change	June 30, 2020	31,848	20	31,336	17	2,594
Actuarial Gain	June 30, 2021	(9,845)	20	(9,760)	18	(777)
Implementation of Alameda Decision	June 30, 2021	(29,772)	15	(28,476)	13	(2,867)
Actuarial Gain	June 30, 2022	(9,092)	20	(9,062)	19	(696)
Implementation of Alameda Decision[2]	June 30, 2022	4,000	14	3,897	13	392
Actuarial Loss	June 30, 2023	2,536	20	2,536	20	188
Assumption Change	June 30, 2023	(7,438)	20	(7,438)	20	(552)
SCAQMD Subtotal				**$201,438**		**$25,317**

1 Reflects the adjustment to UAAL amortization periods made in 2020.

2 Reflects refunds of member contributions due to implementation of the Alameda Decision. The amortization period has been set equal to the remaining period for the related 2021 amortization layer.

Section 3: Supplemental Information

Exhibit H: Table of Amortization Bases (continued)

Safety

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Amortization Amount ($ in '000s)
Actuarial Loss	June 30, 2003	$218,078	20	$24,512	1[1]	$25,457
Actuarial Loss	June 30, 2004	79,928	20	11,281	1	11,716
POB Credit	June 30, 2004	(152,154)	20	(21,468)	1	(22,296)
Plan Change	June 30, 2004	1,245	20	174	1	181
Actuarial Loss	June 30, 2005	40,552	20	10,790	2	5,716
Assumption Change	June 30, 2005	(13,306)	20	(3,538)	2	(1,874)
Actuarial Gain	June 30, 2006	(10,294)	20	(3,869)	3	(1,394)
Actuarial Loss	June 30, 2007	7,498	20	3,560	4	981
Plan Change	June 30, 2007	586	20	271	4	75
Actuarial Loss	June 30, 2008	8,545	20	4,757	5	1,070
Assumption Change	June 30, 2008	(1,042)	20	(577)	5	(130)
Actuarial Loss	June 30, 2009	68,665	20	43,327	6	8,278
Actuarial Loss	June 30, 2010	113,805	20	79,009	7	13,191
Actuarial Loss	June 30, 2011	106,674	20	79,800	8	11,884
Assumption Change	June 30, 2011	72,902	20	54,549	8	8,123
Actuarial Loss	June 30, 2012	42,867	20	34,125	9	4,604
Burial Allowance Method Change	June 30, 2012	348	20	278	9	38
Actuarial Loss	June 30, 2013	37,091	20	31,034	10	3,840
Actuarial Gain	June 30, 2014	(38,209)	20	(33,236)	11	(3,810)
Assumption Change	June 30, 2014	107,305	20	93,306	11	10,696
Actuarial Loss	June 30, 2015	61,791	20	55,580	12	5,950
Actuarial Loss	June 30, 2016	12,071	20	11,152	13	1,123
Actuarial Loss	June 30, 2017	8,617	20	8,129	14	774
Assumption Change	June 30, 2017	172,986	20	163,165	14	15,535
Actuarial Loss	June 30, 2018	57,238	20	54,986	15	4,976
Actuarial Loss	June 30, 2019	50,950	20	49,638	16	4,289
Actuarial Loss	June 30, 2020	112,650	20	110,843	17	9,177
Entry Age Method Change	June 30, 2020	(9,077)	20	(8,919)	17	(738)
Assumption Change	June 30, 2020	56,421	20	55,517	17	4,596
Actuarial Gain	June 30, 2021	(37,003)	20	(36,704)	18	(2,922)
Implementation of Alameda Decision	June 30, 2021	(32,845)	15	(31,418)	13	(3,163)
Actuarial Gain	June 30, 2022	(22,603)	20	(22,538)	19	(1,730)
Implementation of Alameda Decision[2]	June 30, 2022	2,060	14	2,006	13	202
Actuarial Loss	June 30, 2023	87,014	20	87,014	20	6,458
Assumption Change	June 30, 2023	5,967	20	5,967	20	443
Safety Subtotal				**$912,503**		**$121,316**

[1] Reflects the adjustment to UAAL amortization periods made in 2020.

[2] Reflects refunds of member contributions due to implementation of the Alameda Decision. The amortization period has been set equal to the remaining period for the related 2021 amortization layer.

Section 3: Supplemental Information

Exhibit H: Table of Amortization Bases (continued)

Combined

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Amortization Amount ($in '000s)
Actuarial Loss	June 30, 2003	$515,865	20	$57,987	1[1]	$60,224
Actuarial Loss	June 30, 2004	249,525	20	35,180	1	36,536
POB Credit	June 30, 2004	(505,082)	20	(71,191)	1	(73,936)
Plan Change	June 30, 2004	1,245	20	174	1	181
Actuarial Loss	June 30, 2005	120,787	20	32,160	2	17,038
Assumption Change	June 30, 2005	41,468	20	11,039	2	5,849
Actuarial Gain	June 30, 2006	(16,925)	20	(6,374)	3	(2,297)
UAAL Prepayment	December 31, 2006	(10,000)	20	(4,260)	3.5	(1,329)
Actuarial Gain	June 30, 2007	(6,651)	20	(3,128)	4	(862)
Plan Change	June 30, 2007	586	20	271	4	75
Actuarial Loss	June 30, 2008	19,456	20	10,834	5	2,437
Assumption Change	June 30, 2008	(10,689)	20	(5,966)	5	(1,341)
Actuarial Loss	June 30, 2009	206,104	20	130,024	6	24,842
Actuarial Loss	June 30, 2010	454,205	20	315,275	7	52,636
Actuarial Loss	June 30, 2011	320,815	20	240,007	8	35,742
Assumption Change	June 30, 2011	312,167	20	233,536	8	34,777
Actuarial Loss	June 30, 2012	121,985	20	97,078	9	13,097
Burial Allowance Method Change	June 30, 2012	3,009	20	2,326	9	313
Actuarial Loss	June 30, 2013	79,434	20	66,450	10	8,223
Actuarial Gain	June 30, 2014	(232,612)	20	(202,305)	11	(23,191)
Assumption Change	June 30, 2014	331,370	20	288,152	11	33,030
Actuarial Loss	June 30, 2015	59,054	20	53,080	12	5,683
Actuarial Loss	June 30, 2016	24,153	20	22,303	13	2,246
Actuarial Gain	June 30, 2017	(2,913)	20	(2,739)	14	(260)
Assumption Change	June 30, 2017	662,582	20	624,963	14	59,504
Actuarial Loss	June 30, 2018	127,022	20	121,995	15	11,041
Actuarial Loss	June 30, 2019	172,216	20	167,789	16	14,497
Actuarial Loss	June 30, 2020	333,104	20	327,746	17	27,135

[1] Reflects the adjustment to UAAL amortization periods made in 2020.

Section 3: Supplemental Information

Exhibit H: Table of Amortization Bases (continued)

Combined (continued)

Type	Date Established	Initial Amount ($ in '000s)	Initial Period	Outstanding Balance ($ in '000s)	Years Remaining	Amortization Amount ($in '000s)
Entry Age Method Change	June 30, 2020	$(29,639)	20	$(29,141)	17	$(2,412)
Assumption Change	June 30, 2020	313,274	20	308,260	17	25,520
Actuarial Gain	June 30, 2021	(210,933)	20	(209,247)	18	(16,657)
Implementation of Alameda Decision	June 30, 2021	(132,810)	15	(127,022)	13	(12,788)
Actuarial Gain	June 30, 2022	(198,921)	20	(198,398)	19	(15,229)
Implementation of Alameda Decision[1]	June 30, 2022	12,293	14	11,983	13	1,206
Actuarial Loss	June 30, 2023	188,809	20	188,809	20	14,013
Assumption Change	June 30, 2023	(122,736)	20	(122,736)	20	(9,108)
Grand Total[2]				**$2,364,914**		**$326,435**

[1] Reflects refunds of member contributions due to implementation of the Alameda Decision. The amortization period has been set equal to the remaining period for the related 2021 amortization layer.

[2] Excludes five withdrawn employers as of June 2023. Using ongoing valuation assumptions, their UAAL as of June 30, 2023 was $(15,637,000). The present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer and from the City of Big Bear Lake (including the Big Bear Fire Authority) to SBCERA for their transfers has been reflected in this Exhibit.

Exhibit I: Projection of UAAL Balances and Payments

Outstanding Balance of $2,365 Million in Net UAAL as of June 30, 2023

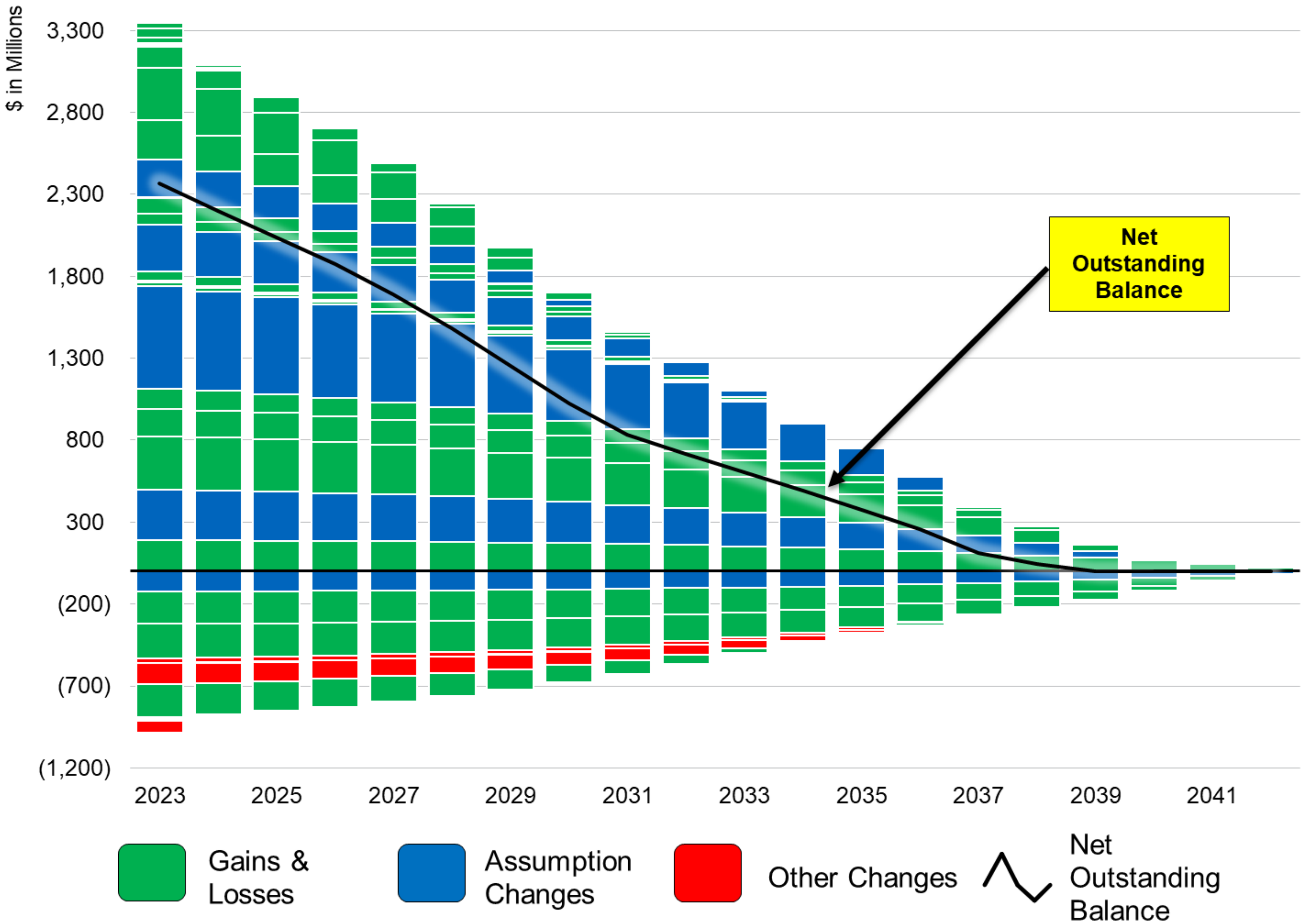


Exhibit I: Projection of UAAL Balances and Payments (continued)

Annual Payments Required to Amortize $2,365 Million in Net UAAL as of June 30, 2023

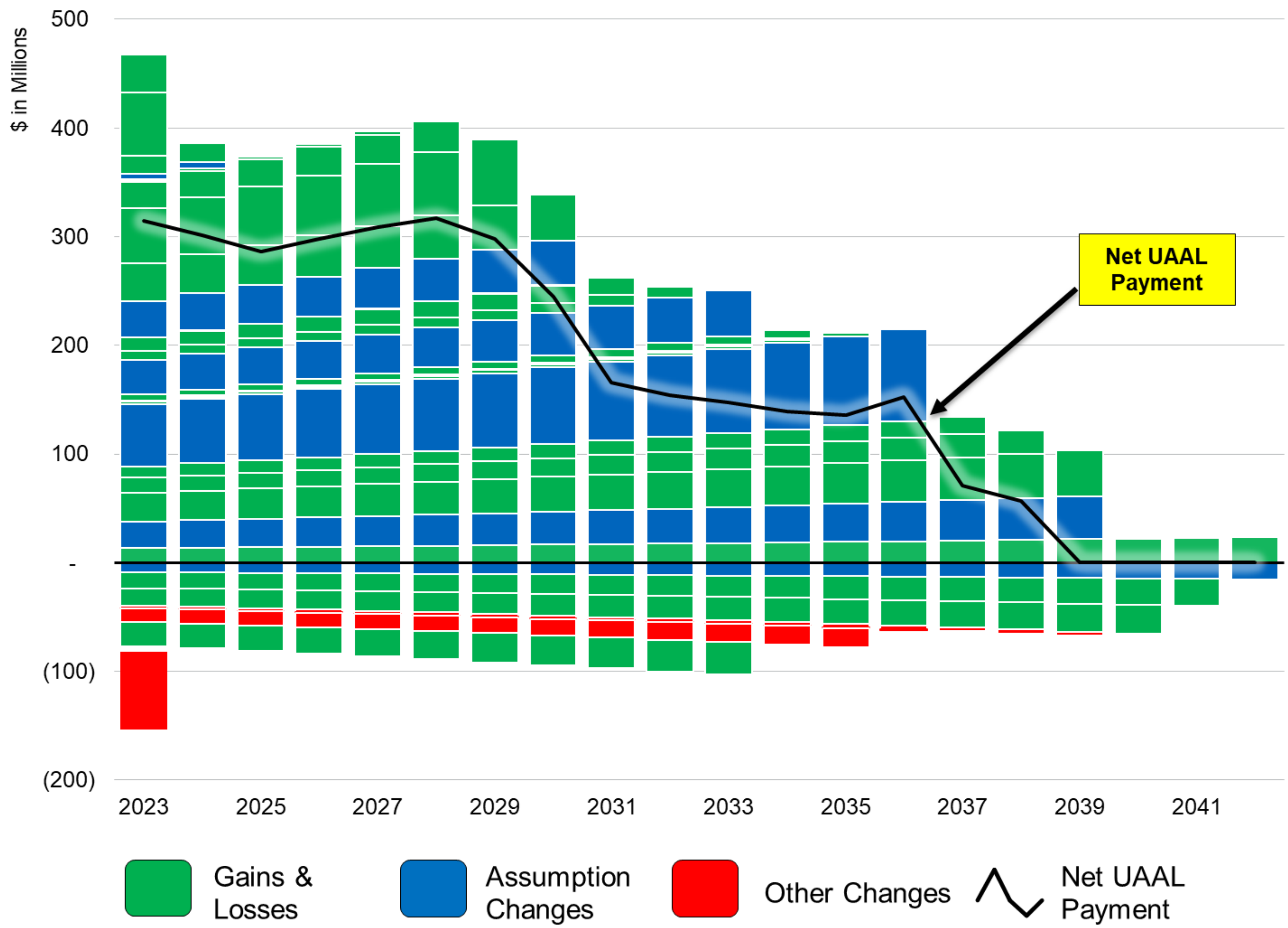


Exhibit J: Definition of Pension Terms

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

Actuarial Accrued Liability for Actives:	The equivalent of the accumulated normal costs allocated to the years before the valuation date.
Actuarial Accrued Liability for Pensioners and Beneficiaries:	The single-sum value of lifetime benefits to existing pensioners 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 in actuarial liabilities that are larger than projected. Actuarial gains will shorten the time required for funding of the actuarial balance sheet deficiency while actuarial losses will lengthen the funding period.
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 (APV):	The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. Each such amount or series of amounts is: Adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, marital status, etc.) Multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination, etc.) on which the payment is conditioned, and Discounted according to an assumed rate (or rates) of return to reflect the time value of money.

Section 3: Supplemental Information

Actuarial Present Value of Future Plan 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 Plan Benefits includes the liabilities for active members, retired members, beneficiaries receiving benefits, and inactive members entitled to either a refund 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. An Actuarial Valuation for a governmental retirement system typically also includes calculations of items needed for compliance with GASB, such as the Actuarially Determined Contribution (ADC) and the Net Pension Liability (NPL).
Actuarial Value of Assets (AVA):	The value of the Fund'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 ADC.
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 (ADC):	The employer's periodic required contributions, expressed as a dollar amount or a percentage of covered plan compensation, determined under the Plan's funding policy. The ADC 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 UAAL. 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 UAAL. 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 ADC, that is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

Section 3: Supplemental Information

Assumptions or Actuarial Assumptions:	The estimates upon which the cost of the Fund is calculated, including: Investment return - the rate of investment yield that the Fund will earn over the long-term future; Mortality rates - the death rates of employees and pensioners; life expectancy is based on these rates; Retirement rates - the rate or probability of retirement at a given age or service; Disability rates - the probability of disability retirement at a given age; Termination rates - the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement; Salary increase rates - the rates of salary increase due to inflation and productivity growth.
Closed Amortization Period:	A specific number of years that is counted down by one each year and therefore declines to zero with the passage of time. For example, if the amortization period is initially set at 30 years, it is 29 years at the end of one year, 28 years at the end of two years, etc. See Open Amortization Period.
Decrements:	Those causes/events due to which a member's status (active-inactive-retiree-beneficiary) changes, that is: death, retirement, disability, or withdrawal.
Defined Benefit Plan:	A retirement plan in which benefits are defined by a formula applied to the member's compensation and/or years of service.
Defined Contribution Plan:	A retirement plan, such as a 401(k) plan, a 403(b) plan, or a 457 plan, in which the contributions to the plan are assigned to an account for each member, the plan's earnings are allocated to each account, and each member's benefits are a direct function of the account balance.
Employer Normal Cost:	The portion of the Normal Cost to be paid by the employer. This is equal to the Normal Cost less expected member contributions.
Experience Study:	A periodic review and analysis of the actual experience of the Fund 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 as deemed appropriate by the Actuary.
Funded Ratio:	The ratio of the Valuation Value of Assets (VVA) to the Actuarial Accrued Liability (AAL). Plans sometimes also calculate a market funded ratio, using the Market Value of Assets (MVA), rather than the VVA.
Investment Return:	The rate of earnings of the Fund 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.

Section 3: Supplemental Information

Normal Cost:	That portion of the Actuarial Present Value of pension plan benefits and expenses allocated to a valuation year by the Actuarial Cost Method. Any payment in respect of an Unfunded Actuarial Accrued Liability is not part of Normal Cost (see Amortization Payment). For pension plan benefits that are provided in part by employee contributions, Normal Cost refers to the total of employee 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.
Payroll or Compensation:	Compensation Earnable and Pensionable Compensation expected to be paid to active members during the twelve months following the valuation date. Only Compensation Earnable and Pensionable Compensation that would possibly go into the determination of retirement benefits are included.
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 Plan 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. It includes the present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer and from the City of Big Bear Lake (including the Big Bear Fire Authority) to SBCERA for their transfers.

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 dated May 24, 2023. Unless otherwise noted, all actuarial assumptions and methods shown below apply to members for all tiers. These assumptions were adopted by the Board.

Economic Assumptions

Net Investment Return:

7.25%; net of investment expenses.

Based on the Actuarial Experience Study reference above, expected investment expenses represent about 0.50% of the Actuarial Value of Assets.

Administrative Expenses:

0.90% of payroll allocated to both the employer and member based on the components of the total average contribution rate (before expenses) for the employer and member. This results in an administrative expense load as shown below:

	Average Contribution Rate Before Administrative Expense	Weighting	Total Loading
Employer	29.55%	74.32%	0.67%
Member	10.21%	25.68%	0.23%
Total		100.00%	0.90%

Under this approach, the employer Normal Cost rate is then increased by the same percent of payroll as the member rate with the remaining employer loading allocated to the employer UAAL rate. This is done to maintain a 50/50 sharing of Normal Cost for those in Tier 2. The table below shows this allocation.

Allocation of Administrative Expense Load as a % of Payroll	
Addition to Employer Basic Normal Cost Rate	0.23%
Addition to Employer Basic UAAL Rate	0.44%
Addition to Member Basic Rate	0.23%
Total Addition to Contribution Rates	0.90%

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

Member Contribution Crediting Rate:

2.50% (Actual rate is based on six-month Treasury rate).

Section 4: Actuarial Valuation Basis

Inflation Rate:	Increase of 2.50% per year; retiree COLA increases due to CPI are limited to maximum of 2.00% per year.
Payroll Growth:	Inflation of 2.50% per year plus “across the board” real salary increases of 0.50% per year.
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 increases of 0.50% per year, plus the following merit and promotion increases:

Merit and Promotion Increases

	Rate (%)	
Years of Service	**General**	**Safety**
Less than 1	5.00	7.00
1 – 2	6.50	4.75
2 – 3	4.75	3.75
3 – 4	4.25	3.75
4 – 5	4.00	3.75
5 – 6	3.50	3.75
6 – 7	3.25	3.75
7 – 8	3.25	3.75
8 – 9	3.00	3.50
9 – 10	2.50	3.25
10 – 11	2.00	2.50
11 – 12	1.75	2.00
12 – 13	1.50	1.90
13 – 14	1.40	1.85
14 – 15	1.35	1.80
15 – 16	1.30	1.75
16 – 17	1.30	1.75
17 – 18	1.30	1.75
18 – 19	1.30	1.75
19 – 20	1.30	1.75
20 & Over	1.30	1.75

Section 4: Actuarial Valuation Basis

Demographic Assumptions	
Post-Retirement Mortality Rates:	*Healthy* • **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 10% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2021 • **Safety Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates decreased by 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021 *Disabled* • **General Members:** Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females) with rates decreased by 5% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021 • **Safety Members:** Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2021 *Beneficiary* • **Beneficiaries not currently in Pay Status:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 10% for males and females, projected generationally with the two-dimensional mortality improvement scale MP-2021 • **Beneficiaries in Pay Status:** Pub-2010 Contingent Survivor Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 5% for males and 15% for females, projected generationally with the two-dimensional mortality improvement scale MP-2021 The Pub-2010 mortality tables and adjustments as shown above 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.

Section 4: Actuarial Valuation Basis

Pre-Retirement Mortality Rates:

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

	Rate (%)			
	General[1]		Safety[1]	
Age	Male	Female	Male	Female
20	0.04	0.01	0.04	0.02
25	0.02	0.01	0.03	0.02
30	0.03	0.01	0.04	0.02
35	0.04	0.02	0.04	0.03
40	0.06	0.03	0.05	0.04
45	0.09	0.05	0.07	0.06
50	0.13	0.08	0.10	0.08
55	0.19	0.11	0.15	0.11
60	0.28	0.17	0.23	0.14
65	0.41	0.27	0.35	0.20
70	0.61	0.44	0.66	0.39

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

[1] Generational projections beyond the base year (2010) are not reflected in the above mortality rates.

Mortality Rates for Member Contributions:

- **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 10% for males and females, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 30% male and 70% female.
- **Safety Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates decreased by 5% for females, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2021, weighted 90% male and 10% female.

Section 4: Actuarial Valuation Basis

Disability Incidence:

	Rate (%)	
Age	**General**	**Safety**
20	0.03	0.15
25	0.03	0.21
30	0.04	0.31
35	0.06	0.56
40	0.09	0.76
45	0.16	1.04
50	0.23	2.58
55	0.31	5.60
60	0.50	7.00
65	0.84	10.30
70	1.00	0.00

60% of General disabilities are assumed to be service connected (duty) disabilities and the other 40% are assumed to be non-service connected (ordinary) disabilities.

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

Section 4: Actuarial Valuation Basis

Termination:

	Rate (%)	
Years of Service	**General**	**Safety**
Less than 1	15.00	8.00
1 – 2	12.00	7.50
2 – 3	11.00	6.50
3 – 4	9.00	6.00
4 – 5	7.50	5.00
5 – 6	7.00	4.00
6 – 7	6.50	3.00
7 – 8	5.50	2.00
8 – 9	5.00	1.90
9 – 10	5.00	1.80
10 – 11	5.00	1.60
11 – 12	5.00	1.40
12 – 13	4.50	1.20
13 – 14	4.50	1.20
14 – 15	4.25	1.20
15 – 16	4.00	1.10
16 – 17	3.75	1.10
17 – 18	3.50	1.10
18 – 19	3.25	1.10
19 – 20	3.25	1.10
20 & Over	3.25	1.10

Refer to the next table that contains rates for electing a refund of contributions upon termination.

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

Section 4: Actuarial Valuation Basis

Termination (continued):

Rate (%) of Electing a Refund of Contributions upon Termination

Years of Service	General: Rate if Elected Refundable Contributions	General: Rate if Elected Non-refundable Contributions	Safety: Rate if Elected Refundable Contributions	Safety: Rate if Elected Non-refundable Contributions
Less than 5	100.00	100.00	100.00	100.00
5 – 6	35.00	17.50	15.00	7.50
6 – 7	35.00	17.50	15.00	7.50
7 – 8	35.00	17.50	15.00	7.50
8 – 9	35.00	17.50	15.00	7.50
9 – 10	35.00	17.50	15.00	7.50
10 – 11	30.00	15.00	15.00	7.50
11 – 12	30.00	15.00	10.00	5.00
12 – 13	30.00	15.00	10.00	5.00
13 – 14	30.00	15.00	10.00	5.00
14 – 15	30.00	15.00	10.00	5.00
15 – 16	15.00	7.50	10.00	5.00
16 – 17	15.00	7.50	5.00	2.50
17 – 18	15.00	7.50	5.00	2.50
18 – 19	15.00	7.50	5.00	2.50
19 – 20	15.00	7.50	5.00	2.50
20 & Over	15.00	7.50	0.00	0.00

Section 4: Actuarial Valuation Basis

Retirement Rates:

	Retirement Rates (%)					
	General Tier 1 (§31676.15)		General Tier 2 (§7522.20(a))	Safety Tier 1 (§31664.1)		Safety Tier 2 (§7522.25(d))
Age	Less than 30 Years of Service	Greater than 30 Years of Service		Less than 30 Years of Service	Greater than 30 Years of Service	
45	0.00	0.00	0.00	2.00	2.00	0.00
46	0.00	0.00	0.00	2.50	2.50	0.00
47	0.00	0.00	0.00	2.50	2.50	0.00
48	0.00	0.00	0.00	2.50	2.50	0.00
49	0.00	50.00	0.00	9.00	9.00	0.00
50	2.50	2.50	0.00	13.00	35.00	5.00
51	2.00	2.00	0.00	10.50	30.00	4.00
52	2.50	2.50	1.50	12.00	30.00	5.00
53	2.50	2.50	1.50	12.50	30.00	6.00
54	2.50	2.50	1.50	14.00	30.00	12.00
55	4.50	10.00	3.50	14.00	37.50	18.00
56	5.00	10.00	3.50	15.00	37.50	20.00
57	5.50	10.00	5.50	15.00	37.50	22.00
58	6.00	17.00	6.50	17.00	37.50	25.00
59	8.50	21.50	7.00	17.00	37.50	25.00
60	11.00	27.50	8.00	25.00	45.00	25.00
61	11.00	27.50	10.50	25.00	45.00	25.00
62	15.00	35.00	16.00	25.00	45.00	25.00
63	15.00	35.00	16.00	25.00	45.00	25.00
64	24.00	42.00	18.00	25.00	45.00	25.00
65	36.00	50.00	22.00	100.00	100.00	100.00
66	30.00	40.00	22.00	100.00	100.00	100.00
67	30.00	40.00	25.00	100.00	100.00	100.00
68	26.00	35.00	20.00	100.00	100.00	100.00
69	26.00	35.00	20.00	100.00	100.00	100.00
70	26.00	35.00	35.00	100.00	100.00	100.00
71	24.00	30.00	25.00	100.00	100.00	100.00
72	22.00	30.00	25.00	100.00	100.00	100.00
73	22.00	30.00	25.00	100.00	100.00	100.00
74	22.00	30.00	25.00	100.00	100.00	100.00
75	100.00	100.00	100.00	100.00	100.00	100.00

Section 4: Actuarial Valuation Basis

Retirement Age and Benefit for Deferred Vested Members:	For current and future deferred vested members, retirement age assumptions are as follows: General Retirement Age Reciprocal members: 59 Other members: 59 Safety Retirement Age Reciprocal members: 53 Other members: 52 We assume that 40% of future General and 65% of future Safety deferred vested members will continue to work for a reciprocal employer. For reciprocal members, we assume 4.30% and 4.75% compensation increases per annum for General and Safety members, respectively.
Future Benefit Accruals:	1.0 year of service per year of employment.
Unknown Data for Members:	Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.
Definition of Active Members:	All active members of SBCERA as of the valuation date.
Data Adjustment:	Data as of May 31 has been adjusted to June 30 by adding one month of age and, for active members, one month or two biweekly periods of service.
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, 65% 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 3 years younger than the member and female members are assumed to have a male spouse who is 2 years older than the member.
Supplemental Disability Benefit:	40% of future General service connected (duty) disabled retirees are assumed to be eligible for this benefit; 75% of future General non-service connected (ordinary) disabled retirees are assumed to be eligible for this benefit.
Leave Cashouts:	Additional compensation amounts are expected to be received during a member's final average earnings period. The percentages are as follows: General Tier 1: 0.75% Safety Tier 1: 1.75% Tier 2: None

Section 4: Actuarial Valuation Basis

Actuarial Funding Policy	
Actuarial Cost Method:	Entry Age Actuarial Cost Method. Entry Age is the age on the valuation date minus the lesser of years of employment or years of benefit service. 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").
Actuarial Value of Assets:	Market Value of Assets (MVA) less unrecognized returns in each of the last five annual accounting periods. Unrecognized returns are equal to the difference between the actual market return and the expected return on the market value, and are recognized annually over a five-year period.
Valuation Value of Assets:	The Actuarial Value of Assets reduced by the following non-valuation reserves and designations: (1) Burial Allowance Reserve; (2) Restricted Balance Reserved for Deficiencies; (3) Additional Contingency Reserve; and (4) Undesignated Excess Earnings Reserve. It includes the present value of additional future contributions payable from the County to SBCERA related to the Crest Forest Fire District transfer and from the City of Big Bear Lake (including the Big Bear Fire Authority) to SBCERA for their transfers.
Amortization Policy:	The Unfunded Actuarial Accrued Liability (UAAL) (i.e., the difference between the Actuarial Accrued Liability and the Valuation Value of Assets), as of June 30, 2011 shall continue to be amortized over separate 20-year period amortization layers based on the valuations during which each separate layer was previously established. Any new UAAL as a result of actuarial gains or losses identified in the annual valuation as of June 30 will be amortized over a period of 20 years. Any new UAAL as a result of change in actuarial assumptions or methods will be amortized over a period of 20 years. Unless an alternative amortization period is recommended by the Actuary and accepted by the Board based on the results of an actuarial analysis: • With the exception noted in the bullet below, the increase in UAAL as a result of any plan amendments will be amortized over a period of 15 years; • The increase in UAAL resulting from a temporary retirement incentive, including the impact of benefits resulting from additional service permitted in Section 31641.04 of the 1937 CERL (Golden Handshake), will be funded over a period of up to 5 years. UAAL shall be amortized over "closed" amortization periods so that the amortization period for each layer decreases by one year with each actuarial valuation. UAAL shall be amortized as a level percentage of payroll so that the amortization amount in each year during the amortization period shall be expected to be a level percentage of covered payroll, taking into consideration the current assumption for general payroll increase (i.e., wage inflation). If an overfunding exists for a UAAL cost sharing group (i.e., the total UAAL for that cost sharing group becomes negative so that there is a surplus), any prior UAAL amortization layers will be considered fully amortized, and any subsequent UAAL will be amortized as the first of a new series of amortization layers, using the above amortization periods.

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Amortization Policy (continued):	Per Section 7522.52 of the Government Code, if the surplus for SBCERA in total does not exceed 20% of the AAL, then the surplus for any UAAL cost sharing group will not be amortized, and the full Normal Cost will be contributed. If the surplus for SBCERA in total exceeds 20% of the AAL, then for each UAAL cost sharing group, the amount of any such surplus in excess of 20% of the AAL (and any subsequent surpluses in excess of 20% of the then current AAL) will be amortized over an "open" amortization period of 30 years, but only if the other conditions of Section 7522.52 have also been met for SBCERA in total. If those other conditions are not met, then the surplus will not be amortized, and the full Normal Cost will be contributed. These amortization policy components will apply separately to each of SBCERA's UAAL cost sharing groups with the exception that the conditions of Section 7522.52 apply to the total plan.
<u>Other Actuarial Methods</u>	
Employer Contributions:	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-earning rate. The contribution rate is determined as a level percentage of the member's compensation. Note that the Normal Cost rate for County General and Superior Court members is a combined rate based on the members at both employers. *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-earning rate. The contribution (or rate credit in the case of a negative UAAL) is calculated to remain as a level percentage of future active member payroll (including payroll for new members as they enter the Association) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments (credits) are scheduled to increase at the annual rate of 3.00% (i.e., 2.50% inflation plus 0.50% "across the board" salary increase). Note that all pre-January 1, 1996 retirees and beneficiaries are included as County members for purposes of this calculation and all information shown throughout this report. The amortization policy is described on the previous page. Note that the employer rates provided in this report exclude any debt payments associated with any pension obligation bonds. The recommended employer contributions are provided in *Section 2, Subsection F*.
Member Contributions:	The member contribution rates for all members are provided in *Section 4, Exhibit 3*. Note that the member rates provided in the report are the full rate before reflecting any employer pickup. **Tier 1 Members** 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 members and Safety members, respectively. The basic contribution rate is determined so that the accumulation of a member's basic contributions made in a given year until a certain age will be sufficient to fund an annuity at that age that is equal to 1/100 of Final Average Salary. That age is 55 for General members and 50 for Safety members. It is

Section 4: Actuarial Valuation Basis

	assumed that contributions are made annually at the same rate, starting at entry age. In addition to their basic contributions, members pay one-half of the total Normal Cost necessary to fund their cost-of-living benefits. Accumulation includes semi-annual crediting of interest at the lesser of the assumed investment-earning rate or the six-month T-bill rate. Any difference between the assumed investment-earning rate and the actual interest-crediting rate will be credited to the annuity reserve. **Tier 2 Members** Pursuant to Section 7522.30(a) of the Government Code, Tier 2 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 $265,000 for 2023. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions. Tier 1 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. However, it is anticipated that Tier 2 members will not be limited in the future due to the PEPRA compensation limit applied in the determination of their benefit. Actual limitations will result in actuarial gains as they occur.
Changed Actuarial Assumptions and Methods:	Based on the Actuarial Experience Study, the following assumptions were changed. Previously, these assumptions and methods were as follows:
Administrative Expenses:	0.85% of payroll allocated to both the employer and member based on the components of the total average contribution rate (before expenses) for the employer and member. The administrative expense load is added to the Basic rates for employers and members.
Member Contribution Crediting Rate:	2.75% (Actual rate is based on six-month Treasury rate).
Inflation Rate:	Increase of 2.75% per year; retiree COLA increases due to CPI are limited to maximum of 2.00% per year.

Section 4: Actuarial Valuation Basis

Prior Actuarial Assumptions (continued):	
Payroll Growth:	Inflation of 2.75% per year plus “across the board” real salary increases of 0.50% per year.
Increase in Internal Revenue Code Section 401(a)(17) Compensation Limit:	Increase of 2.75% per year from the valuation date.
Increase in Section 7522.10 Compensation Limit:	Increase of 2.75% per year from the valuation date.
Salary Increases:	The annual rate of compensation increase includes: inflation at 2.75%, plus “across the board” salary increases of 0.50% per year, plus the following merit and promotion increases:

Merit and Promotion Increases

	Rate (%)	
Years of Service	**General**	**Safety**
Less than 1	9.50	9.00
1 – 2	7.00	5.50
2 – 3	4.75	4.00
3 – 4	4.25	3.80
4 – 5	4.00	3.70
5 – 6	3.50	3.60
6 – 7	3.25	3.50
7 – 8	3.00	3.25
8 – 9	2.50	3.00
9 – 10	2.00	2.75
10 – 11	1.75	2.25
11 – 12	1.50	2.00
12 – 13	1.45	1.90
13 – 14	1.40	1.85
14 – 15	1.35	1.80
15 – 16	1.30	1.75
16 – 17	1.30	1.70
17 – 18	1.30	1.65
18 – 19	1.30	1.60
19 – 20	1.30	1.55
20 & Over	1.30	1.50

Section 4: Actuarial Valuation Basis

Prior Actuarial Assumptions (continued):	
Post-Retirement Mortality Rates:	*Healthy* • **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 10%, projected generationally with the two-dimensional mortality improvement scale MP-2019 • **Safety Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019 *Disabled* • **General Members:** Pub-2010 Non-Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019 • **Safety Members:** Pub-2010 Safety Disabled Retiree Amount-Weighted Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019 *Beneficiary* • **All Beneficiaries:** Pub-2010 General Contingent Survivor Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 10%, projected generationally with the two-dimensional mortality improvement scale MP-2019 The Pub-2010 mortality tables and adjustments as shown above reflect the mortality experience as of the measurement date. The generational projection is a provision for future mortality improvement.

Section 4: Actuarial Valuation Basis

Prior Actuarial Assumptions (continued):

Pre-Retirement Mortality Rates:

- **General Members:** Pub-2010 General Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019
- **Safety Members**: Pub-2010 Safety Employee Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2019

	Rate (%)			
	General[1]		Safety[1]	
Age	Male	Female	Male	Female
20	0.04	0.01	0.04	0.02
25	0.02	0.01	0.03	0.02
30	0.03	0.01	0.04	0.02
35	0.04	0.02	0.04	0.03
40	0.06	0.03	0.05	0.04
45	0.09	0.05	0.07	0.06
50	0.13	0.08	0.10	0.08
55	0.19	0.11	0.15	0.11
60	0.28	0.17	0.23	0.14
65	0.41	0.27	0.35	0.20
70	0.61	0.44	0.66	0.39

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

[1] Generational projections beyond the base year (2010) are not reflected in the above mortality rates.

Mortality Rates for Member Contributions:

- **General Members:** Pub-2010 General Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females) with rates increased by 10%, projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 30% male and 70% female
- **Safety Members:** Pub-2010 Safety Healthy Retiree Amount-Weighted Above-Median Mortality Table (separate tables for males and females), projected 30 years (from 2010) with the two-dimensional mortality improvement scale MP-2019, weighted 90% male and 10% female

Section 4: Actuarial Valuation Basis

Prior Actuarial Assumptions (continued):

Disability Incidence:

	Rate (%)	
Age	**General**	**Safety**
20	0.02	0.20
25	0.02	0.23
30	0.03	0.34
35	0.06	0.52
40	0.09	0.66
45	0.16	1.00
50	0.26	2.28
55	0.36	5.10
60	0.58	7.10
65	0.88	7.50
70	1.12	0.00

55% of General disabilities are assumed to be service connected (duty) disabilities and the other 45% are assumed to be non-service connected (ordinary) disabilities.

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

Section 4: Actuarial Valuation Basis

Prior Actuarial Assumptions (continued):

Termination:

	Rate (%)	
Years of Service	**General**	**Safety**
Less than 1	15.00	7.00
1 – 2	11.00	6.50
2 – 3	10.00	5.50
3 – 4	8.00	5.00
4 – 5	7.00	4.50
5 – 6	6.50	3.00
6 – 7	6.00	2.50
7 – 8	4.75	2.00
8 – 9	4.50	1.80
9 – 10	4.50	1.60
10 – 11	4.50	1.40
11 – 12	4.50	1.30
12 – 13	4.25	1.20
13 – 14	4.25	1.10
14 – 15	4.00	1.10
15 – 16	3.75	1.10
16 – 17	3.50	1.10
17 – 18	3.25	1.10
18 – 19	3.00	1.10
19 – 20	3.00	1.10
20 & Over	3.00	1.10

Refer to the next table that contains rates for electing a refund of contributions upon termination. No termination is assumed after a member is first assumed to retire.

Section 4: Actuarial Valuation Basis

Prior Actuarial Assumptions (continued):

Termination (continued):

Rate (%) of Electing a Refund of Contributions upon Termination

Years of Service	General: Rate if Elected Refundable Contributions	General: Rate if Elected Non-refundable Contributions	Safety: Rate if Elected Refundable Contributions	Safety: Rate if Elected Non-refundable Contributions
Less than 5	100.00	100.00	100.00	100.00
5 – 6	40.00	20.00	20.00	10.00
6 – 7	40.00	20.00	20.00	10.00
7 – 8	40.00	20.00	20.00	10.00
8 – 9	40.00	20.00	20.00	10.00
9 – 10	40.00	20.00	20.00	10.00
10 – 11	35.00	17.50	20.00	10.00
11 – 12	35.00	17.50	20.00	10.00
12 – 13	35.00	17.50	15.00	7.50
13 – 14	35.00	17.50	15.00	7.50
14 – 15	35.00	17.50	15.00	7.50
15 – 16	20.00	10.00	15.00	7.50
16 – 17	20.00	10.00	10.00	5.00
17 – 18	20.00	10.00	10.00	5.00
18 – 19	20.00	10.00	5.00	2.50
19 – 20	20.00	10.00	5.00	2.50
20 & Over	20.00	10.00	0.00	0.00

Section 4: Actuarial Valuation Basis

Prior Actuarial Assumptions (continued):

Retirement Rates:

Retirement Rates (%)

Age	General Tier 1 (§31676.15) Less than 30 Years of Service	General Tier 1 (§31676.15) Greater than 30 Years of Service	General Tier 2 (§7522.20(a))	Safety Tier 1 (§31664.1) Less than 30 Years of Service	Safety Tier 1 (§31664.1) Greater than 30 Years of Service	Safety Tier 2 (§7522.25(d))
45	0.00	0.00	0.00	1.00	1.00	0.00
46	0.00	0.00	0.00	2.00	2.00	0.00
47	0.00	0.00	0.00	2.50	2.50	0.00
48	0.00	0.00	0.00	2.00	2.00	0.00
49	0.00	50.00	0.00	10.00	10.00	0.00
50	2.75	2.75	0.00	15.00	37.50	5.00
51	2.25	2.25	0.00	10.00	25.00	4.00
52	3.00	3.00	1.75	12.00	30.00	5.00
53	3.00	3.00	1.75	12.00	30.00	6.00
54	3.00	3.00	1.75	14.00	35.00	12.00
55	4.50	4.50	4.00	15.00	37.50	18.00
56	5.00	5.00	4.00	15.00	37.50	20.00
57	6.00	6.00	6.00	15.00	37.50	22.00
58	6.50	16.25	7.00	15.00	37.50	25.00
59	8.50	21.25	8.00	15.00	37.50	25.00
60	12.00	30.00	9.00	25.00	37.50	25.00
61	12.00	30.00	11.00	25.00	37.50	25.00
62	16.00	40.00	20.00	25.00	37.50	25.00
63	16.00	40.00	20.00	25.00	37.50	25.00
64	23.00	46.00	20.00	25.00	37.50	25.00
65	37.00	55.50	25.00	100.00	100.00	100.00
66	30.00	45.00	30.00	100.00	100.00	100.00
67	25.00	37.50	30.00	100.00	100.00	100.00
68	25.00	37.50	25.00	100.00	100.00	100.00
69	25.00	37.50	25.00	100.00	100.00	100.00
70	25.00	37.50	40.00	100.00	100.00	100.00
71	20.00	30.00	40.00	100.00	100.00	100.00
72	20.00	30.00	40.00	100.00	100.00	100.00
73	20.00	30.00	40.00	100.00	100.00	100.00
74	20.00	30.00	40.00	100.00	100.00	100.00
75	100.00	100.00	100.00	100.00	100.00	100.00

Section 4: Actuarial Valuation Basis

Prior Actuarial Assumptions (continued):	
Retirement Age and Benefit for Deferred Vested Members:	For current and future deferred vested members, retirement age assumptions are as follows: • General Retirement Age: 59 • Safety Retirement Age: 53 40% of future General and 65% of future Safety deferred vested members are assumed to continue to work for a reciprocal employer. For reciprocals, 4.55% and 4.75% compensation increases are assumed per annum for General and Safety, respectively.
Percent Married:	For all active and inactive members, 65% of male members and 55% of female members are assumed to be married at pre-retirement death or retirement.
Supplemental Disability Benefit:	45% of future General service connected (duty) disabled members are assumed to be eligible for this benefit; 70% of future General non-service connected (ordinary) disabled members are assumed to be eligible for this benefit.
Leave Cashouts:	Additional compensation amounts are expected to be received during a member’s final average earnings period. The percentages are as follows: • General Tier 1: 1.00% • Safety Tier 1: 2.00% • Tier 2: None

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.

Plan Year:	July 1 through June 30
Membership Eligibility:	All permanent employees of the County of San Bernardino or contracting district, scheduled to work 20 or more hours weekly, are eligible, subject to classification below:
General	All employees not eligible for Safety.
Safety	Employees in law enforcement and fire suppression.
Tier 1	All members with membership dates before January 1, 2013.
Tier 2	All members with membership dates on or after January 1, 2013.
Final Compensation for Benefit Determination:	
Tier 1	Highest consecutive twelve months of compensation earnable (§31462.1) (FAS1).
Tier 2	Highest consecutive thirty-six months of pensionable compensation (§7522.10(c), §7522.32 and §7522.34) (FAS3).
Compensation Limit:	
Tier 1	For members with membership dates on or after July 1, 1996, Compensation Earnable is limited to Internal Revenue Code Section 401(a)(17). The limit as of July 1, 2023 is $330,000. The limit is indexed for inflation on an annual basis.
Tier 2	Pensionable Compensation is limited to $175,250 for 2023. The limit is indexed for inflation on an annual basis.
Service:	Years of service (Yrs) are generally based on a member's employment during a period of time for which deductions are made from their compensation.

Section 4: Actuarial Valuation Basis

Service Retirement Eligibility:	
General Tier 1	Age 50 with 10 years of service, or age 70 regardless of service, or after 30 years regardless of age (§31672).
General Tier 2	Age 52 with 5 years of service (§7522.20(a)) or age 70 regardless of service (§31672.3).
Safety Tier 1	Age 50 with 10 years of service, or age 70 regardless of service, or after 20 years regardless of age (§31663.25).
Safety Tier 2	Age 50 with 5 years of service (§7522.25(d)) or age 70 regardless of service (§31672.3).

Benefit Formula:		
General Tier 1 (§31676.15)	**Retirement Age**	**Benefit Formula**
	50	1.49% x FAS1 x Yrs
	55	2.00% x FAS1 x Yrs
	60	2.62% x FAS1 x Yrs
	62	2.82% x FAS1 x Yrs
	65 and over	3.13% x FAS1 x Yrs
General Tier 2 (§7522.20(a))	**Retirement Age**	**Benefit Formula**
	52	1.00% x FAS3 x Yrs
	55	1.30% x FAS3 x Yrs
	60	1.80% x FAS3 x Yrs
	62	2.00% x FAS3 x Yrs
	65	2.30% x FAS3 x Yrs
	67 and over	2.50% x FAS3 x Yrs
Safety Tier 1 (§31664.1)	**Retirement Age**	**Benefit Formula**
	50 and over	3.00% x FAS1 x Yrs
Safety Tier 2 (§7522.25(d))	**Retirement Age**	**Benefit Formula**
	50	2.00% x FAS3 x Yrs
	55	2.50% x FAS3 x Yrs
	57 and over	2.70% x FAS3 x Yrs

Section 4: Actuarial Valuation Basis

Maximum Benefit:	
Tier 1	100% of Highest Average Compensation (§31676.15, §31664.1).
Tier 2	There is no final compensation limit on the maximum retirement benefit.
Ordinary Disability:	
Eligibility	Five years of service (§31720).
Benefit	For members entering before January 1, 1981, 1.8% per year of service (in most cases a minimum of 33% of Final Compensation) (§31727.3, §31727, and §31727.2). For members entering on or after January 1, 1981, 20% of Final Compensation, plus 2% of Final Compensation for each year of service in excess of five years, up to a maximum of 40%. For all members, 100% of the Service Retirement benefit will be paid, if greater.
Line-of-Duty Disability:	
Eligibility	No age or service requirements (§31720).
Benefit	50% of the Final Compensation or 100% of Service Retirement benefit, if greater (§31727.4).
Supplemental Disability:	
Eligibility	Must be a General member and incapable of gainful employment.
Benefit	$300 per month payable as long as the member is incapable of gainful employment. This benefit is not considered when calculating Cost-of-Living increases.
Pre-Retirement Death:	
All Members	
Eligibility	None.
Basic lump sum benefit	Refund of member contributions with interest, plus one month's compensation for each year of service, to a maximum of six months' compensation (§31781).
Line-of-Duty Death	50% of Final Compensation payable to spouse or minor children (§31787).
Vested Members	
Eligibility	Five years of service.
Basic benefit	60% of the greater of Service Retirement or Ordinary Disability Retirement benefit payable to surviving eligible spouse or eligible children (§31765.1, §31781.1), in lieu of the basic lump sum benefit above. An additional lump sum payment of one-year of compensation is paid if Line-of-Duty death for Safety member (§31787.6).

Section 4: Actuarial Valuation Basis

Death After Retirement:	
All Members	
Service Retirement or Ordinary Disability Retirement	Unless another option was selected at retirement, 60% of member's unmodified allowance continued to eligible spouse (§31760.1).
Line-of-Duty Disability	Unless another option was selected at retirement, 100% of member's unmodified allowance continued to eligible spouse (§31786).
Additional Death Benefit	A lump sum benefit of $750 is payable to the member's beneficiary for all post-retirement deaths (§31789.1). In addition, the Board of Retirement approved a discretionary $250 post-retirement lump sum death benefit (i.e., burial allowance) (§31789.13). This benefit is funded from undesignated excess earnings and is subject at all times to the availability of funds in the Burial Allowance reserve. This benefit is not valued in the actuarial valuation.
Withdrawal Benefits:	
Less than Five Years of Service	Refund of accumulated employee contributions with interest (§31628) or entitled to earned benefits commencing any time after eligible to retire (§31629.5) if eligible for benefits at a reciprocal system.
Five or More Years of Service	If contributions left on deposit, a member is entitled to earned benefits commencing at any time after eligible to retire (§31700). Service for eligibility includes service credited as an employee of a reciprocal system.
Post-retirement Cost-of-Living Benefits:	Annual adjustment based on Consumer Price Index to a maximum of 2% per year; excess "banked". There is a one-time 7% increase at retirement for members hired before August 19, 1975.
Member Contributions:	Refer to *Section 4, Exhibit 3* for specific rates.
General Tier 1	
Basic	Entry-age based rates that provide for an annuity at age 55 equal to 1/100 of FAS1 (§31621.6).
Cost-of-Living	Entry-age based rates that provide for one-half of future Cost-of-Living costs.
Safety Tier 1	
Basic	Entry-age based rates that provide for an annuity at age 50 equal to 1/100 of FAS1 (§31639.25).
Cost-of-Living	Entry-age based rates that provide for one-half of future Cost-of-Living costs.
General and Safety Tier 2	A flat rate that provide for 50% of total Normal Cost Rate.
Other Information:	Tier 1 members with 30 or more years of service are exempt from paying member contributions (§31625.2, §31625.3).

Section 4: Actuarial Valuation Basis

Changed Plan Provisions:	There have been no changes in plan provisions since the last valuation.

Note: The summary of major plan provisions is designed to outline principal plan benefits as interpreted for purposes of the actuarial valuation. 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.

Exhibit 3: Member Contribution Rates

General Tier 1 Members' Contribution Rates (Refundable Basis) Based on the June 30, 2023 Actuarial Valuation (as a % of monthly payroll)

Entry Age	Basic	Total	Entry Age	Basic	Total
16	7.25%	8.76%	36	10.15%	12.28%
17	7.37%	8.90%	37	10.34%	12.51%
18	7.50%	9.06%	38	10.53%	12.74%
19	7.62%	9.21%	39	10.73%	12.99%
20	7.75%	9.37%	40	10.94%	13.24%
21	7.88%	9.52%	41	11.15%	13.50%
22	8.01%	9.68%	42	11.36%	13.75%
23	8.14%	9.84%	43	11.56%	13.99%
24	8.28%	10.01%	44	11.75%	14.23%
25	8.42%	10.18%	45	11.90%	14.41%
26	8.56%	10.35%	46	12.00%	14.53%
27	8.70%	10.52%	47	12.09%	14.64%
28	8.85%	10.70%	48	12.19%	14.76%
29	9.00%	10.88%	49	12.27%	14.86%
30	9.15%	11.07%	50	12.32%	14.92%
31	9.31%	11.26%	51	12.35%	14.95%
32	9.47%	11.46%	52	12.35%	14.95%
33	9.63%	11.65%	53	12.18%	14.75%
34	9.80%	11.86%	54 & Over	12.10%	14.65%
35	9.98%	12.08%			

Interest:	7.25% per annum
COLA:	2.00%
Administrative Expense	0.23% of payroll added to Basic rates.
Mortality:	See *Section 4, Exhibit 1*
Salary Increase:	Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit 1*)
COLA Loading Factor:	21.49%, applied to Basic rates prior to adjustment for administrative expenses.

Note: These rates are determined before any pickups by the employer, if any.

Section 4: Actuarial Valuation Basis

Exhibit 3: Member Contribution Rates (continued)

General Tier 1 Members' Contribution Rates (Nonrefundable Basis) Based on the June 30, 2023 Actuarial Valuation (as a % of monthly payroll)

Entry Age	Basic	Total	Entry Age	Basic	Total
16	7.04%	8.50%	36	9.85%	11.92%
17	7.16%	8.64%	37	10.04%	12.15%
18	7.28%	8.80%	38	10.22%	12.37%
19	7.40%	8.94%	39	10.42%	12.61%
20	7.52%	9.10%	40	10.62%	12.85%
21	7.65%	9.24%	41	10.83%	13.11%
22	7.78%	9.40%	42	11.03%	13.35%
23	7.90%	9.55%	43	11.22%	13.58%
24	8.04%	9.72%	44	11.41%	13.82%
25	8.17%	9.88%	45	11.55%	13.99%
26	8.31%	10.05%	46	11.65%	14.11%
27	8.45%	10.21%	47	11.74%	14.21%
28	8.59%	10.39%	48	11.83%	14.33%
29	8.74%	10.56%	49	11.91%	14.43%
30	8.88%	10.75%	50	11.96%	14.49%
31	9.04%	10.93%	51	11.99%	14.51%
32	9.19%	11.13%	52	11.99%	14.51%
33	9.35%	11.31%	53	11.83%	14.32%
34	9.51%	11.51%	54 & Over	11.75%	14.22%
35	9.69%	11.73%			

Interest:	7.25% per annum
COLA:	2.00%
Administrative Expense	0.23% of payroll added to Basic rates.
Mortality:	See *Section 4, Exhibit 1*
Salary Increase:	Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit 1*)
COLA Loading Factor:	21.49%, applied to Basic rates prior to adjustment for administrative expenses.
Refundability Factor:	1.03

Note: These rates are determined before any pickups by the employer, if any.

Exhibit 3: Member Contribution Rates (continued)

Safety Tier 1 Members' Contribution Rates (Refundable Basis) Based on the June 30, 2023 Actuarial Valuation (as a % of monthly payroll)

Entry Age	Basic	Total	Entry Age	Basic	Total
16	8.89%	12.32%	36	11.92%	16.55%
17	9.02%	12.50%	37	12.12%	16.83%
18	9.14%	12.67%	38	12.32%	17.11%
19	9.27%	12.85%	39	12.47%	17.32%
20	9.40%	13.03%	40	12.56%	17.45%
21	9.53%	13.21%	41	12.61%	17.51%
22	9.67%	13.41%	42	12.65%	17.57%
23	9.80%	13.59%	43	12.69%	17.63%
24	9.94%	13.79%	44	12.72%	17.67%
25	10.09%	14.00%	45	12.77%	17.74%
26	10.23%	14.19%	46	12.81%	17.79%
27	10.38%	14.40%	47	12.88%	17.89%
28	10.53%	14.61%	48	12.85%	17.85%
29	10.69%	14.83%	49 & Over	12.59%	17.49%
30	10.85%	15.06%			
31	11.01%	15.28%			
32	11.18%	15.52%			
33	11.36%	15.77%			
34	11.54%	16.02%			
35	11.73%	16.29%			

Interest:	7.25% per annum
COLA:	2.00%
Administrative Expense	0.23% of payroll added to Basic rates.
Mortality:	See *Section 4, Exhibit 1*
Salary Increase:	Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit 1*)
COLA Loading Factor:	39.62%, applied to Basic rates prior to adjustment for administrative expenses

Note: These rates are determined before any pickups by the employer, if any.

Exhibit 3: Member Contribution Rates (continued)

Safety Tier 1 Members' Contribution Rates (Nonrefundable Basis) Based on the June 30, 2023 Actuarial Valuation (as a % of monthly payroll)

Entry Age	Basic	Total	Entry Age	Basic	Total
16	8.80%	12.20%	36	11.80%	16.39%
17	8.93%	12.38%	37	12.00%	16.66%
18	9.05%	12.54%	38	12.20%	16.94%
19	9.18%	12.72%	39	12.35%	17.15%
20	9.31%	12.90%	40	12.44%	17.28%
21	9.44%	13.08%	41	12.49%	17.34%
22	9.57%	13.28%	42	12.52%	17.40%
23	9.70%	13.46%	43	12.56%	17.46%
24	9.84%	13.65%	44	12.59%	17.50%
25	9.99%	13.86%	45	12.64%	17.56%
26	10.13%	14.05%	46	12.68%	17.61%
27	10.28%	14.26%	47	12.75%	17.71%
28	10.43%	14.47%	48	12.72%	17.67%
29	10.58%	14.68%	49 & Over	12.47%	17.32%
30	10.74%	14.91%			
31	10.90%	15.13%			
32	11.07%	15.37%			
33	11.25%	15.61%			
34	11.43%	15.86%			
35	11.61%	16.13%			

Interest:	7.25% per annum
COLA:	2.00%
Administrative Expense	0.23% of payroll added to Basic rates.
Mortality:	See *Section 4, Exhibit 1*
Salary Increase:	Inflation (2.50%) + Across-the-Board Increase (0.50%) + Merit (See *Section 4, Exhibit 1*)
COLA Loading Factor:	39.62%, applied to Basic rates prior to adjustment for administrative expenses.
Refundability Factor:	1.01

Note: These rates are determined before any pickups by the employer, if any.

Exhibit 3: Member Contribution Rates (continued)

Tier 2 Members' Contribution Rates (Refundable Basis) Based on the June 30, 2023 Actuarial Valuation (as a % of monthly payroll)

All Entry Ages	Basic	COLA	Total
County General and Superior Court	7.21%	1.53%	8.74%
Safety	11.91%	3.15%	15.06%
SCAQMD	6.45%	1.39%	7.84%
Other General	7.10%	1.51%	8.61%

Note: The Tier 2 member contribution rate is 50% of the Normal Cost rate. The Basic rates shown above also include an administrative expense load of 0.23% of payroll.

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