Attachment B





Santa Barbara County Employees' Retirement System

Actuarial Valuation Report as of June 30, 2023

Produced by Cheiron

December 2023

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December 5, 2023

Board of Retirement Santa Barbara County Employees' Retirement System 130 Robin Hill Road, Suite 100 Goleta, California 93117

Dear Members of the Board,

At your request, we have conducted an actuarial valuation of the Santa Barbara County Employees' Retirement System (SBCERS, the System, the Fund, the Plan) as of June 30, 2023. This report contains information on the System's assets and liabilities and discloses employer and employee contribution levels. Your attention is called to the Foreword in which we refer to the general approach employed in the preparation of this report.

The purpose of this report is to present the results of the annual actuarial valuation of SBCERS. This report is for the use of the Retirement Board of Santa Barbara and its auditors in preparing financial reports in accordance with applicable law and accounting requirements.

Cheiron's report was prepared solely for the Retirement Board of Santa Barbara for the purposes described herein, except that the plan auditor may rely on this report solely for the purpose of completing an audit related to the matters herein. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

Sincerely, Cheiron

Anne D. Harper, FSA, EA, MAAA Principal Consulting Actuary Graham A. Schmidt, FSA, EA, MAAA, FCA Consulting Actuary

FOREWORD

Cheiron has performed the actuarial valuation of the Santa Barbara County Employees' Retirement System as of June 30, 2023. The valuation is organized as follows:

- In Section I, the **Executive Summary**, we describe the purpose of an actuarial valuation, summarize the key results found in this valuation, and disclose important trends.
- The Main Body of the report presents details on the System's
 - o Section II Disclosures Related to Risk
 - Section III Assets
 - Section IV Liabilities
 - Section V Contributions
 - o Section VI Annual Comprehensive Financial Reporting Information
- In the **Appendices**, we conclude our report with the following detailed information
 - o Appendix A Membership Information
 - o Appendix B Member Contribution Rates
 - o Appendix C Employer Contribution Rates with Member Cost-Sharing Adjustments
 - o Appendix D Statement of Current Actuarial Assumptions and Methods
 - Appendix E Summary of Plan Provisions
 - Appendix F Glossary

Future results may differ significantly from the current results presented in this report due to such factors as the following: plan experience different from that anticipated by the assumptions; changes in assumptions; and changes in plan provisions or applicable law.

In preparing our report, we relied on information (some oral and some written) supplied by the SBCERS staff. This information includes, but is not limited to, plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

Cheiron utilizes ProVal, an actuarial valuation application leased from Winklevoss Technologies (WinTech), to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this report. The deterministic and stochastic projections shown in this report were developed using R-Scan, our proprietary stochastic projection tool for assessing probabilities of different outcomes. We have relied on Cheiron colleagues who developed the tool, and we have used the tool in accordance with its purpose.



SECTION I – EXECUTIVE SUMMARY

The primary purpose of the actuarial valuation and this report is to measure, describe, and identify the following as of the valuation date:

- The funded status of the System,
- Past and expected trends in the funding progress of the System,
- Employer and employee contribution rates for Plan Year 2024-2025,
- Information required by the GFOA for the Annual Comprehensive Financial Report, and
- An assessment and disclosure of key risks.

The information required under GASB standards Nos. 67 and 68 is included in a separate report, with the report for the Plan's Fiscal Year Ending June 30, 2023 provided to SBCERS in October 2023.

In the balance of this Executive Summary, we present (A) the basis upon which this year's valuation was completed, (B) the key findings of this valuation including a summary of all key results, (C) an examination of the historical trends, and (D) the projected outlook for the System.

A. Valuation Basis

This valuation determines the employer contributions required for the employers' fiscal years beginning July 1, 2024.

The System's funding policy is to collect contributions from the employers and employees equal to the sum of:

- The normal cost under the Entry Age Normal Cost Method,
- Amortization of the Unfunded Actuarial Liability, and
- The Fund's expected administrative expenses.

The Unfunded Actuarial Liability payment is determined as the amount needed to fund the outstanding Unfunded Actuarial liability (UAL). Effective with the June 30, 2013 valuation, the UAL as of June 30, 2013, is amortized over a closed 17-year period (currently seven years), except for the additional UAL attributable to the creation of Safety Plan 6, which is being amortized over a separate closed period (currently five years).

Effective with the June 30, 2014 valuation, any new sources of UAL due to actuarial gains and losses, assumption changes, or method changes are amortized over a closed 19-year period, with a five-year ramp up and four-year ramp down of the amortization payment at the beginning and end of the amortization period and 10 years of level payments as a percentage of payroll between the ramping periods. The Board also adopted a policy to replace the smoothed Actuarial Value of Assets with the Market Value of Assets for valuation purposes. These amortization and funding policies in conjunction are a type of policy known as direct rate smoothing.

This valuation was prepared based on the plan provisions shown in Appendix E.



SECTION I – EXECUTIVE SUMMARY

This valuation was performed based on the economic and demographic assumptions and methods that were recommended in the Actuarial Experience Study performed by Cheiron as of June 30, 2022. More details on the rationale for the demographic and economic assumptions can be found in the Actuarial Experience Study report which was presented to the Board on December 7, 2022. A summary of the assumptions and methods used in the current valuation is shown in Appendix D.

B. Key Findings of this Valuation

The key results of the June 30, 2023 actuarial valuation are as follows:

- The actuarially determined employer contribution rate, net of employee cost-sharing, decreased from 39.48% of payroll to 38.86% of payroll. The rate decreased mainly due to higher than expected payroll used to determine the Unfunded Actuarial Liability payment.
- The return on Plan assets for June 30, 2023 was 7.2% net of investment expenses and assuming mid-year cash flows as compared to the 7.00% assumption. This produced an actuarial asset gain of \$6.5 million.
- The System's funded ratio, the ratio of the Market Value of Assets over the Actuarial Liability, increased from 82.7% last year to 83.9% as of June 30, 2023.
- The UAL is the excess of the System's Actuarial Liability over the Market Value of Assets. The System experienced a decrease in the UAL from \$816.9 million to \$790.8 million, a decrease of \$26.1 million. Table I-3 details the changes in UAL.
- The Actuarial Liability of the System increased more than expected. The experience losses were primarily due to higher than expected salaries and more retirements than expected. As a result, the System experienced a loss on the Actuarial Liability of \$30.3 million, less than a 1% increase as a percentage of the expected Actuarial Liability of \$4,892.6 million.
- Through collective bargaining agreements, certain legacy members began making employer pick-up contributions starting September 10, 2018. The cost-sharing contributions are estimated to offset the net employer contribution rates by 1.75% for FYE 2024 and 1.57% for FYE 2025. The impact of cost-sharing will continue to gradually decline as legacy members retire or leave the System.



SECTION I – EXECUTIVE SUMMARY

Below and on the following pages, we present Tables I-1, I-2, and I-3 which summarize the key results of the valuation with respect to SBCERS assets, Actuarial Liabilities, Unfunded Actuarial Liability, funded ratios, contribution rates, and membership. The results are shown and compared for both the current and prior plan year.

Table I-1 Santa Barbara County Employees' Retirement System Summary of Key Valuation Results (in thousands)						
Valuation Date Fiscal Year End	Ju	ne 30, 2022 2024	Ju	ne 30, 2023 2025	Change	
Actuarial Liability Market Value of Assets Unfunded Actuarial Liability (UAL)	\$ 	4,713,760 3,896,843 816,917	\$ 	4,922,924 4,132,090 790,834	4.4% 6.0% -3.2%	
Funding Ratio Employer Contribution Rate Estimated Impact of Employee Cost-Sharing Net Employer Contribution Rate	¥	82.7% 41.23% -1.75% 39.48%	Ψ	83.9% 40.43% -1.57% 38.86%	1.2% -0.80% <u>0.18%</u> -0.62%	

The key results in Table I-1 show that the Actuarial Liability increased by 4.4% and the Market Value of Assets increased by 6.0%. As a result, the funding ratio increased from 82.7% to 83.9%, an increase of 1.2%. Additionally, the Unfunded Actuarial Liability (UAL) decreased by \$26.1 million or -3.2% as of June 30, 2023.

The net employer contribution rate decreased 0.62% from 39.48% to 38.86% of payroll, with the estimated offset from employee cost-sharing decreasing by 0.18% as more legacy members retire or leave the System.

Based on estimated fiscal year 2024-25 payroll of \$441 million, the estimated employer contributions are \$171 million net of cost-sharing for the fiscal year ending June 30, 2025. Note that the estimated fiscal year payroll amount is based on projected payroll from the previous year's valuation dates (see Table I-2) rolled forward at the assumed payroll growth rate of 3.0% to the fiscal year in which the contribution rate applies.



SECTION I – EXECUTIVE SUMMARY

As shown in Table I-2 below, membership in SBCERS increased by 3.1%. Active membership increased by 2.6%, terminated/deferred members increased by 4.7%, and members receiving benefits increased by 3.1%. Total payroll increased by 6.1%, which is more than the assumed 3.0% increase. The average pay per active member also increased by 3.4%.

Table I-2 Membership Total						
	J	une 30, 2022	J	une 30, 2023	% Change	
Actives		4,279		4,389	2.6%	
Terminated Members		1,784		1,867	4.7%	
Members Receiving Benefits		5,075		5,231	3.1%	
Total Members	·	11,138		11,487	3.1%	
Ratio of Inactives to Active Members		1.60		1.62		
Active Member Projected Payroll	\$	403,732,358	\$	428,367,478	6.1%	
Average Pay per Active	\$	94,352	\$	97,600	3.4%	

Projected payroll is based on valuation data projected for next fiscal year using a full year of salary increases.



SECTION I – EXECUTIVE SUMMARY

Table I-3 Change in Unfunded Actuarial Liab (in thousands)	ility	
Unfunded Actuarial Liability, 6/30/2022	\$	816,917
Expected change in Unfunded Actuarial Liability Unfunded decrease due to actuarial asset gain ¹ Unfunded increase due to liability loss Total change in unfunded actuarial liability	\$ 	(49,731) (6,644) 30,292 (26,083)
Unfunded Actuarial Liability, 6/30/2023	\$	790,834

¹ Includes gain due to more contributions than expected due to the payroll increase offset by the contribution timing lag and administrative expenses.

The Unfunded Actuarial Liability (UAL) for SBCERS decreased by \$26.1 million, from \$816.9 million to \$790.8 million. Table I-3 above presents the specific components of the change in the UAL.

The expected decrease in the UAL of \$49.7 million is the amount of expected employer and employee contributions in excess of benefits expected to accrue for active members and interest on the UAL.

The actuarial asset gain, including the gain of \$0.2 million on the actual contributions being more than expected due to the large payroll increase offset by the contribution timing lag and the small expense loss of \$0.01, decreased the UAL by \$6.6 million.

The liability experience increased the UAL by \$30.3 million, of which \$20.7 million was due to active member salary increases.



SECTION I – EXECUTIVE SUMMARY

Employer Contributions Comparison

Thus far, the experience of the 2022-23 plan year has been presented in terms of the UAL and funded ratio. Table I-4 below compares the employer contribution rates and its components from the prior year to the current year. The employer contribution rate decreased by 0.62% for the June 30, 2023 valuation (after the impact of the employee cost-sharing). The employer normal cost decreased by 0.53%. The contribution component for the UAL amortization payment decreased by 0.26%.

Overall, the employee contributions, as a weighted average of payroll, increased by 0.21% of pay, decreasing the net employer portion of the normal cost rate. The impact of PEPRA members, most of whom have higher contribution rates, replacing legacy members increased the weighted average employee contribution rate by about 0.46% of pay.

These reductions to the employer contribution rate were slightly offset by a decrease of 0.18% in the employee cost-sharing rate. When the employee cost-sharing rate decreases, more of the contribution is paid by the employer, so a decrease in the employee cost-sharing rate translates to an increase in the employer contribution rate.

Table I-4 Contributions Rates by Components						
Valuation Year	2022	2023	Total			
Effective for Fiscal Year End	FYE 2024	FYE 2025	Change			
Gross Normal Cost	22.53%	22.21%	-0.32%			
Employee Contributions	<u>7.75%</u>	<u>7.96%</u>	<u>0.21%</u>			
Employer Normal Cost	14.78%	14.25%	-0.53%			
UAL Amortization Payment Employer Contribution Rate Estimated Impact of Employee Cost-Sharing Net Employer Contribution Rate	26.45%	26.19%	-0.26%			
	41.23%	40.43%	-0.80%			
	-1.75%	-1.57%	<u>0.18%</u>			
	39.48%	38.86%	-0.62%			



SECTION I – EXECUTIVE SUMMARY

Table I-5 summarizes the changes in the net employer contributions rate from the last valuation.

Employer Contribution I	Table I-5 Rate Reconciliat	ion (After Cost-	Sharing)	
	Normal Cost	UAL Payment	Total	Dollars
FYE 2024 Employer Contribution Rate	13.03%	26.45%	39.48%	\$164.2 M
Expected Changes				
DRS amortization phase-in	0.00%	0.41%	0.41%	
PEPRA new hires	-0.32%	0.00%	-0.32%	
Employee cost-sharing	0.11%	0.00%	0.11%	
Total Expected Change	-0.21%	0.41%	0.20%	
Expected FYE 2025 Employer Rate	12.82%	26.86%	39.68%	\$169.9 M
Additional impact of PEPRA new hires	-0.14%	0.00%	-0.14%	
Additional cost-sharing impact	0.07%	0.00%	0.07%	
Effect of payroll on UAL payments	0.00%	-0.76%	-0.76%	
Demographic experience	<u>-0.08%</u>	<u>0.12%</u>	0.04%	
Total Unexpected Change	-0.15%	-0.67%	-0.82%	
FYE 2025 Employer Contribution Rate	12.67%	26.19%	38.86%	\$171.4 M

A review of the changes in the employer contribution rate from the prior valuation shows that the FYE 2024 rate was expected to increase by 0.20%, but it decreased by 0.62% due to unexpected changes in the Plan's assets and demographics. The largest driver of the decrease in the employer contribution rate is the change due to the impact of higher than expected payroll on UAL payments. The effect of payroll led to a decrease in the contribution rate of 0.76%. The components of the contribution rate change are as follows:

- The expected direct rate smoothing (DRS) amortization phase-in from prior years increased the contribution rate by 0.41%. The increase is primarily due to the continued phase-in of the asset losses and assumption changes from the 2020 and 2022 valuations, partially offset by the continued phase-in of the large asset gain in the 2021 valuation. Please refer to Table V-2 for details of the UAL amortization payments and Appendix D Contribution Allocation Procedure (page 86), which describes the amortization policy in detail.
- PEPRA members now make up 52% of active member payroll. The average employee contribution rate continues to increase since most PEPRA members have higher employee contribution rates than the retiring or terminating legacy members they replace. PEPRA benefits are also lower than the legacy members' benefits. The expected impact of the increasing number of PEPRA members was a 0.32% of pay decrease in the employer contribution rate, but the actual impact was a 0.46% of pay decrease, for an additional 0.14% reduction.



SECTION I – EXECUTIVE SUMMARY

- When legacy members, who have bargained the employee cost-sharing, retire and are replaced by PEPRA members, there are fewer cost-sharing contributions as a percentage of total Plan payroll. The expected change in the cost-sharing contribution was a 0.11% of pay increase. But the actual cost-sharing decreased from 1.75% to 1.57%, increasing the net employer contribution rate by 0.18%, for an additional 0.07% increase.
- Payroll used to amortize unfunded liabilities was higher than expected by about \$12.5 million. As a result, the UAL payments are spread over a larger payroll base than expected, and the employer contribution rate, as a percentage of payroll, decreased by 0.76%.
- Asset experience produced an investment gain that decreased the contribution rate by 0.03% of pay. The assets of the Plan returned 7.2% (net of investment expenses), which is slightly higher than the assumed rate of 7.00%. The impact of the current year gain will continue to be phased-in to the employer contribution rates over the next four years, as provided for under the Plan's funding policy. See Table V-2 Development of Amortization Payment for more details.
- Other demographic experience produced a net increase in cost of about 0.04% of pay. The actuarial liability loss of \$30.3 million increased the UAL contribution rate by 0.12%, while other changes in demographics reduced the employers' normal cost rate by 0.08%.



SECTION I – EXECUTIVE SUMMARY

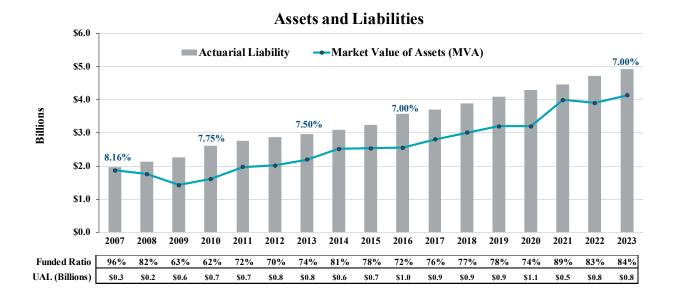
C. Historical Trends

For most retirement plans, the greatest attention is given to the current valuation results and in particular, the size of the current Unfunded Actuarial Liability and the employer contribution. However, it is important to remember that each valuation is merely a snapshot in the long-term progress of a pension fund. The current year's valuation should be judged relative to historical trends, as well as trends expected into the future.

Assets and Liabilities

The chart below compares the Market Value of Assets (MVA) to the Actuarial Liabilities. The percentage shown in the table below the graph is the ratio of the Market Value of Assets to the Actuarial Liability (the funded ratio). The large decrease in funded ratio from 2007 to 2009 was due to significant asset losses in 2008-2009. The funded ratio increased from 62% in 2010 to 72% in 2016, even though the discount rate was lowered from 7.75% to 7.00%.

The gradual increase in the funded ratio from 2016 to 2019, reaching 78%, was primarily due to asset gains during the period as well as significant contributions. The investment experience was the cause of the significant fluctuations in the funded ratio from 2020 to 2022. Finally, the increase from 82.7% to 83.9% in 2023 is due to the contribution levels, greater than the normal cost and interest on the UAL, that are paying down principal on the UAL.





SECTION I – EXECUTIVE SUMMARY

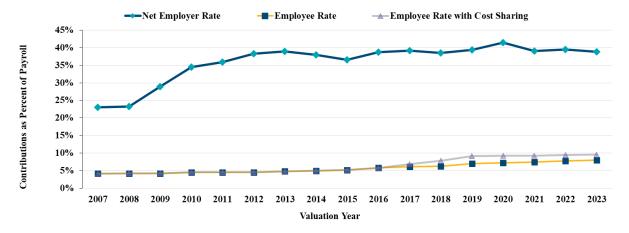
Contribution Trends

In the chart below, we present the historical trends for the SBCERS contribution rates. The employer contribution rates increased significantly between 2008 and 2013, as the investment losses from 2008-2009 were recognized over the period under the previous asset smoothing method. The employer rates have been more stable since 2013, ranging from 36.6% to 41.4%. The contribution stability is primarily due to the Plan's amortization policy which phases in the funding of all unexpected changes in the UAL over a five-year period.

In 2014, the employer rate decreased due to an asset method change that eliminated the actuarial asset smoothing and recognized deferred asset gains immediately and favorable asset experience, which continued to be phased-in over the next four years. In 2016, assumption changes increased the employer contribution rate. Subsequently, employer rates have been relatively stable with some volatility in 2020 and 2021 due to asset performance and the final year of the 2016 assumption change being phased-in 2020. The contribution rate increased only slightly in 2022 despite a large asset loss and assumption changes, due to the offsetting asset gains of 25.9% from 2021 continuing to be phased-in. The decrease in contribution rate in 2023 is driven primarily by higher than expected payroll used to determine the unfunded actuarial liability payment.

The average employee contribution rates were relatively stable from 2014 to 2016, increasing slightly as the Plan's economic assumptions have changed and PEPRA members were hired. Average employee contributions rates were consistently around 5% until about 2016 and have gradually increased as more PEPRA members are hired and cost-sharing contributions for legacy members have been bargained.

Historical Contribution Rates





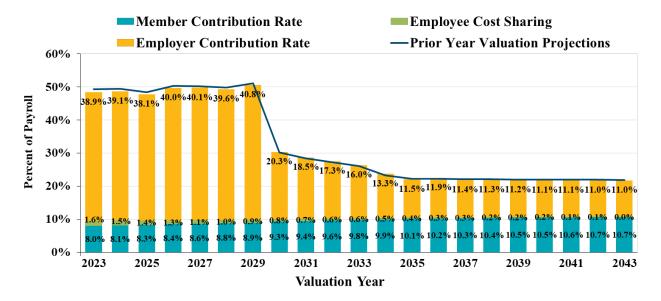
SECTION I – EXECUTIVE SUMMARY

D. Future Expected Financial Trends

The analysis of projected financial trends is an important component of this valuation. All the projections in this section are based on the current investment return assumption of 7.00%. We have assumed future payroll increases of 3.00% per year. The projections also assume that all other actuarial assumptions are met each year.

Projection of Contributions

The following graph shows the expected employer contribution rate – including the impact of expected offsets for additional employee cost-sharing contributions – based on achieving the 7.00% assumption **each year** for the next 20 years. This scenario is highly unlikely; even if the Plan does achieve an **average** return of 7.00% over this period, the returns in each given year will certainly vary.



The employer contribution rate after cost-sharing is approximately 38.9% of member payroll for the June 30, 2023 valuation. The overall experience, both for the assets and liabilities, during the FYE 2023 plan year was very close to expectations, so the 2023 projections are very similar to the projections from the prior plan year valuation. The employer rate is expected to be relatively stable for the next two years, then is expected to increase to 40.0% when the last year of the UAL amortization layers for the 2022 asset loss and assumption changes are fully phased-in.

After 2029, the total contribution rate is expected to drop significantly, when the remaining UAL as of June 30, 2013 is fully paid off. From 2030 to 2037 contribution rate decreases as amortization bases are phased out. After that point, employer contribution rates are expected to stabilize around 11%, the estimated normal cost rate. PEPRA mandates that employers must continue to contribute at least the normal cost rate unless the plan is 120% funded and has met certain other requirements.

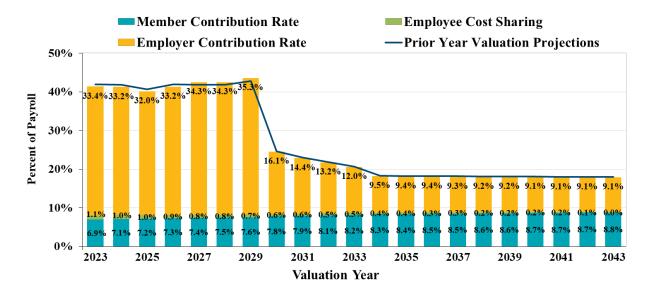


SECTION I – EXECUTIVE SUMMARY

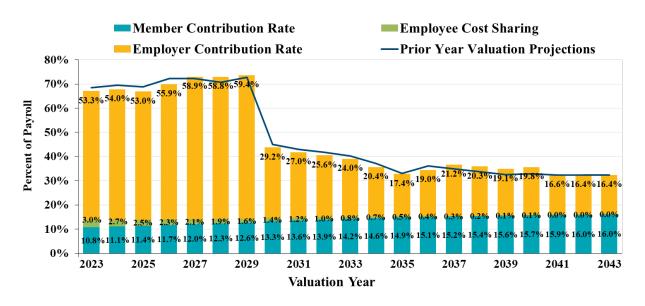
Employee contribution rates are projected to gradually increase as the PEPRA members become a larger proportion of the active member population over time. PEPRA employee contribution rates are 50% of the normal cost rate and are greater on average than for the legacy plans. However, the employee cost-sharing contributions — bargained for the legacy members only—are projected to decrease as legacy plan members retire.

The employer contribution rate projections are shown below and on the next page for each group: General, Safety, and Air Pollution Control District (APCD). All have similar patterns, since the primary driver is the investment returns, while the magnitude of contribution increases and decreases varies by group.

General Member Group



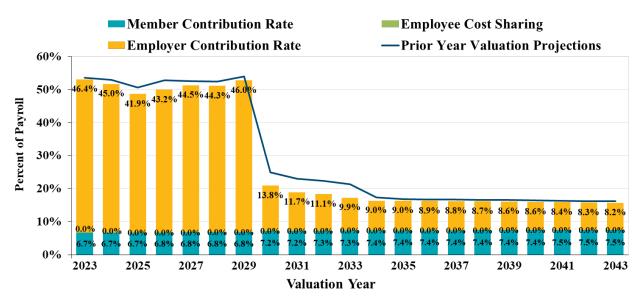
Safety Member Group





SECTION I – EXECUTIVE SUMMARY

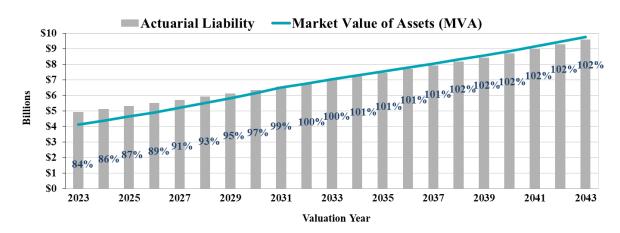
APCD Member Group



Please note that there is no employee cost-sharing for the APCD members.

Asset and Liability Projections:

In this section, we present our assessment of the implications of the June 30, 2023 valuation results in terms of benefit security (assets over liabilities). The following graph shows the projection of assets and liabilities assuming that assets will earn the 7.00% assumption each year during the projection period. The percentages along the graph represent the funded ratio or status of the System.



The projected funded ratio increases each year during the projection period, reaching 100% in 2032, assuming that all actuarial assumptions are achieved each year and employer and employee contributions are made based on actuarially determined rates.

However, as above, it is the **actual** return on System assets that will determine the future funding status and contribution rate to the Fund.



SECTION II – DISCLOSURES RELATED TO RISK

Actuarial valuations are based on a set of assumptions about future economic and demographic experience. These assumptions represent a reasonable estimate of future experience, but actual future experience will undoubtedly be different and may vary significantly. This section of the report is intended to identify the primary risks to the Plan, provide some background information about those risks, and provide an assessment of those risks.

Identification of Risks

The fundamental risk to a pension plan is that the contributions needed to pay the benefits become unaffordable. This is most likely to occur when the contributions needed to support the plan differ significantly from expectations. While there are a number of factors that could lead to contribution amounts deviating from expectations, we believe the primary risks are:

- Investment risk.
- Assumption change risk, and
- Contribution risk.

Other risks that we have not identified may also turn out to be important.

Investment Risk is the potential for investment returns to be different from expected. Lower investment returns than anticipated will increase the Unfunded Actuarial Liability necessitating higher contributions in the future unless there are other gains that offset these investment losses. The potential volatility of future investment returns is determined by the Plan's asset allocation and the affordability of the investment risk is determined by the amount of assets invested relative to the size of the plan sponsor or other contribution base.

Assumption change risk is the potential for the environment to change such that future valuation assumptions are different from the current assumptions. For example, declines in interest rates over the last three decades resulted in higher investment returns for fixed income investments, but lower expected future returns necessitating either a change in investment policy, a reduction in discount rate, or some combination of the two. However, interest rates over the last two years have increased, potentially mitigating the need to lower discount rates even further. Assumption change risk is an extension of the other risks identified, but rather than capturing the risk as it is experienced, it captures the cost of recognizing a change in environment when the current assumption is no longer reasonable.

Contribution risk is the potential for actual future contributions to deviate from expected future contributions. There are different sources of contribution risk such as the sponsor failing to make contributions in accordance with the funding policy. As another example, the contribution requirement might become a financial strain on the sponsor because of material changes in the contribution base (e.g., covered employees, covered payroll) that affects the amount of contributions the Plan can collect.



SECTION II - DISCLOSURES RELATED TO RISK

The chart below shows the components contributing to the Unfunded Actuarial Liability (UAL) from June 30, 2013 through June 30, 2023. Over the last 10 years, the UAL has decreased by approximately \$27 million. The asset method change (teal bar) of \$132 million and the contributions in excess of the "tread water" level (red bar, defined later in this section) of \$255 million have both decreased the UAL since June 30, 2013. The assumptions changes (purple bar) of \$274 million, the investment losses (gold bar) of \$63 million on the Market Value of Assets, and the net liability losses (gray bar) of \$22 million, result in a total UAL increase of \$359 million.

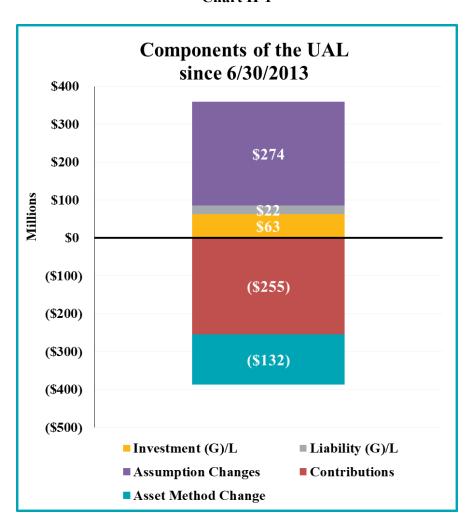


Chart II-1



SECTION II – DISCLOSURES RELATED TO RISK

Chart II-2 below details the annual sources of the UAL changes (colored bars) for the plan years ending June 30. The net UAL change for the year is represented by the blue diamonds.

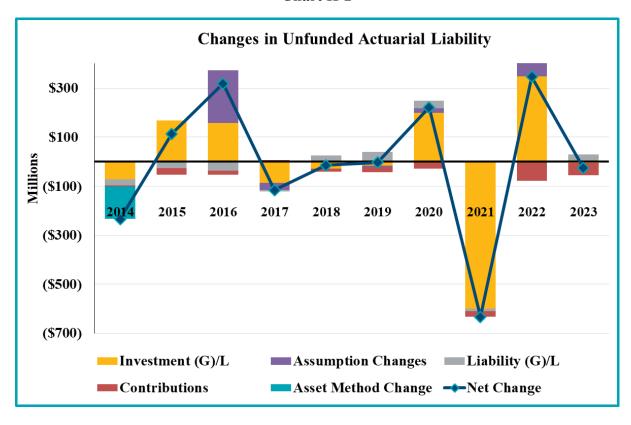


Chart II-2

The Board approved a change in the asset smoothing method effective with the June 30, 2014 actuarial valuation to eliminate the five-year smoothing of investment gains and losses when determining the funded ratio and calculating employer contribution rates. As of June 30, 2014, there were \$132 million in deferred asset gains that were immediately recognized when the Actuarial Value of Assets became the Market Value of Assets.

The average annual geometric market return over the 10-year period is 7.2%, however, the assumed rate of return was 7.5% until 2016 when it was lowered to 7.0%. Actuarial losses were slightly greater than the gains over the period.

The impact of all assumption changes is represented by the purple bars. The assumption changes effective with the 2017, 2019, and 2020 valuations were only demographic changes. The assumption changes effective with the July 1, 2022 valuation included both demographic and economic changes. In addition to several demographic changes, the most recent assumption changes include increases to expected future post-retirement cost-of-living adjustments. The expected rate of return of 7.00% has not been adjusted since the assumption changes effective with the June 30, 2016 valuation.



SECTION II – DISCLOSURES RELATED TO RISK

Each year the UAL is expected to increase for active benefits earned in the current year (the normal cost) and interest on the UAL. This expected increase is referred to as the tread water level.

If contributions are greater than the tread water level, the UAL is expected to decrease. Conversely, if contributions are less than the tread water level, the UAL is expected to increase. The amortization policy (as well as the contribution-timing lag) can affect whether or not the contributions exceed the tread water level. For example, the Board changed the amortization policy in 2013 to amortize the UAL over a closed 17-year period instead of a rolling period. Prior to this amortization policy change, contributions were slightly more than tread water level. However, contributions after the policy change have paid down the UAL substantially, by about \$255 million during the ten-year period after the policy change.

Table II-1

	Unfunded Actuarial Liability (UAL) Change by Source							
June 30,	Investment Experience	Liability Experience	Assumption and Method Changes	Contributions	Total UAL Change			
2014	(\$71,742,000)	(\$24,833,000)	$(\$132,340,000)^{-1}$	(\$4,829,000)	(233,744,000)			
2015	167,682,000	(25,874,000)	0	(27,587,000)	114,221,000			
2016	156,742,000	(35,903,000)	215,838,000	(18,022,000)	318,655,000			
2017	(86,209,000)	(6,600,000)	(29,684,000)	6,223,000	(116,270,000)			
2018	(28,015,000)	25,400,000	0	(12,265,000)	(14,880,000)			
2019	(15,690,000)	40,071,000	(7,455,000)	(20,530,000)	(3,604,000)			
2020	198,108,000	32,520,000	19,125,000	(28,461,000)	221,292,000			
2021	(600,018,000)	(11,363,000)	0	(22,322,000)	(633,703,000)			
2022	349,083,000	(1,844,000)	76,452,000	(76,868,000)	346,823,000			
2023	(6,469,000)	30,292,000	0	(49,905,000)	(26,082,000)			
Total	\$63,472,000	\$21,866,000	\$141,936,000	(\$254,566,000)	(\$27,292,000)			

¹ Asset Method Change from Actuarial Value to Market Value



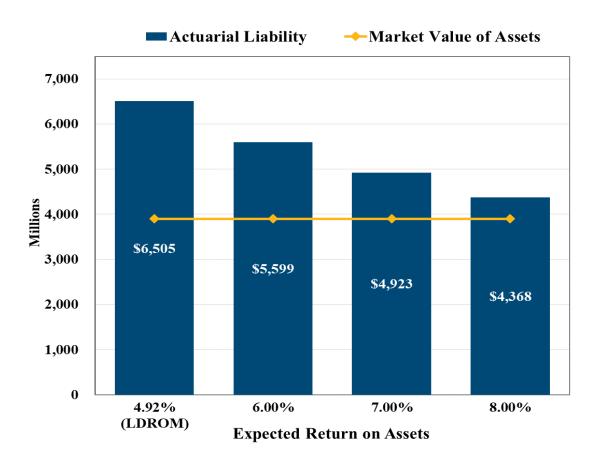
SECTION II – DISCLOSURES RELATED TO RISK

Assessing Costs and Risks

Sensitivity to Investment Returns

The chart below compares the Market Value of Assets (line) to the Actuarial Liabilities (bars) discounted at the current expected rate of return (7.00%) and at discount rates 100 basis points above and below the expected rate of return. In addition, we have added an additional measurement, the Low Default Risk Obligation Measure (LDROM), which is the Actuarial Liability using a discount rate derived from low-default-risk fixed income securities that approximately match the benefit payments of the plan.

Actuarial Liability versus Assets



If investments return 7.00% annually, the Plan will need approximately \$4.9 billion in assets today to pay the benefits associated with service earned to date, compared to current assets of \$4.1 billion. If investment returns are only 6.00%, the Plan would need approximately \$5.6 billion in assets today, and if investment returns are 8.00%, the Plan would need approximately \$4.4 billion in assets.



SECTION II – DISCLOSURES RELATED TO RISK

SBCERS invests in a diversified portfolio to achieve the best possible returns at an acceptable level of risk. SBCERS' average return over the last 30 years is 7.18%. Please refer to Table III-4 for the asset returns by year since 2004.

The lowest risk portfolio for a pension plan would be composed entirely of low-default-risk fixed income securities whose cash flows match the benefit cash flows of the plan. However, such a portfolio would have a lower expected rate of return (4.92% as of June 30, 2023) than the diversified portfolio (7.00%). The Low-Default-Risk Obligation Measure (LDROM) represents what the Actuarial Liability would be if SBCERS' assets were invested in such a portfolio. As of June 30, 2023, the LDROM is \$6.51 billion¹ compared to the Actuarial Liability of \$4.92 billion for SBCERS in total (General, Safety, and APCD employers). The \$1.59 billion difference can be viewed as the expected savings from taking on the investment risk of the diversified portfolio. Alternatively, it can be viewed as the potential cost of minimizing the investment risk.

If SBCERS were to invest in the LDROM portfolio and not a diversified portfolio, the funded status would be lower, and expected contribution requirements would increase. The security of SBCERS' pension benefits relies on the current assets, future investment earnings, and the ability and willingness of employers to make future contributions. If SBCERS were to invest in the LDROM portfolio, it would not change current assets, but it could potentially reduce future investment earnings, potentially changing the level of reliance on future employer contributions. However, investing in an LDROM portfolio would generate more predictable future investment earnings and future contributions.

¹ Based on a discount rate equal to the June 30, 2023 FTSE Pension Liability Index of 4.92%, and all other assumptions and methods as used to calculate the Actuarial Liability.

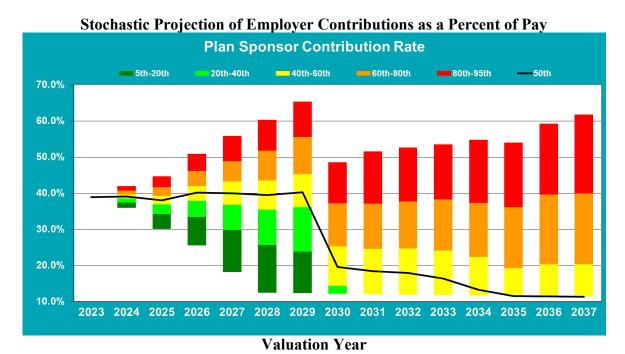


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SECTION II - DISCLOSURES RELATED TO RISK

Sensitivity to Investment Returns – Stochastic Projections

Stochastic projections serve to show the range of probable outcomes of various measurements. The graphs on this and the following page show the projected range of the employer contribution rate and of the funded ratio (i.e., the market assets divided by liabilities). The range in both scenarios is driven by the volatility of investment returns (assumed to be based on a 10.5% standard deviation of annual returns, as provided by the Plan's investment consultant). The stochastic projections of investment returns are based on an assumption that each future year's investment return is independent from all other years and is identically distributed according to a lognormal distribution. This assumption may result in an unrealistically wide range of compound investment returns over longer periods of time.



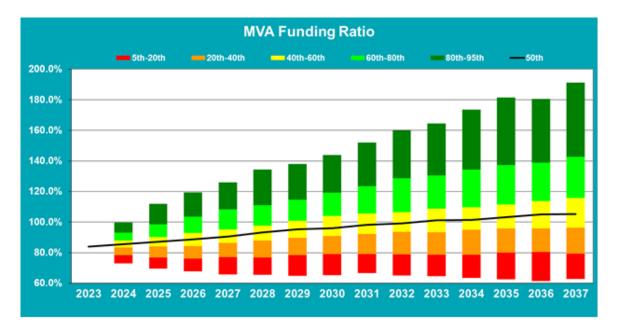
The stochastic projection of employer contributions as a percent of pay shows the probable range of future contribution rates. The baseline contribution rate (black line), which represents the median of the simulations using an average return of 7.00%, aligns closely with the projections discussed in subsection D of the Executive Summary of this report. In the most pessimistic scenario shown, the 95th percentile, the projected employer contribution rate is approximately 69% of pay in 2029. Conversely, in the most optimistic scenario shown, the 5th percentile, the projected employer contribution rate declines to about 11% in 2037 (the minimum allowed under law, since PEPRA requires that employers contribute an amount at least equal to their share of the normal cost, unless the plan becomes "super" funded).



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SECTION II – DISCLOSURES RELATED TO RISK

Stochastic Projection of Funded Ratio on a Market Value of Assets Basis



The graph above shows the projection of the funded ratio based on the market value of assets. While the median funded ratio (black line) is projected to be approximately 105% at the end of the 15-year period shown here, there is a wide range of potential outcomes. Good investment returns have the likelihood of bringing the funded ratio well over 100%. Due to the sound funding policy of the Plan, even in scenarios with significant unfavorable investment returns, the Plan is projected to remain over 60% funded, as long as the actuarially determined contributions continue to be made.

Contribution Risk

If contribution rates become a significant percentage of payroll, future salary increases and the hiring of new members are potentially at risk. When member payroll growth stagnates or even declines, the dollar level of contributions made to the Plan also stagnates or declines since contributions are based on payroll levels.

There is also a risk of the contribution rates increasing when payroll decreases since the Plan's funding policy amortizes the UAL as a level percentage of pay. This means that the UAL payments are designed to increase at the assumed payroll growth rate of 3.00%, so that the payment is expected to remain constant as a percentage of payroll. If payroll growth is less than the expected 3.00% or there is a decline in payroll, the UAL payments are spread over a smaller payroll base and the contribution rate as a percentage of pay increases, potentially making the Plan less affordable. This risk is particularly relevant for the APCD, as their UAL payment as a percentage of payroll is 78% of their total employer contribution rate.



SECTION II – DISCLOSURES RELATED TO RISK

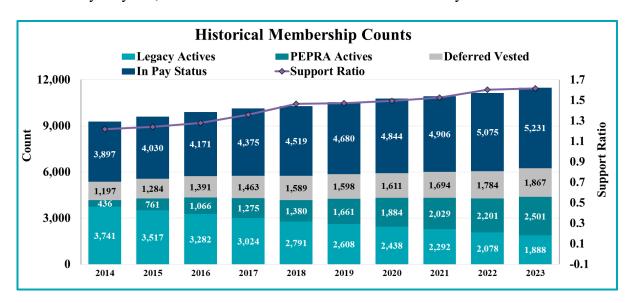
Plan Maturity Measures

The future financial condition of a mature pension plan is more sensitive to each of the risks identified above than a less mature plan. To assess each of these risks, it is important to understand the maturity of the plan and how it has changed over time.

Plan maturity can be measured in a variety of ways, but they all get at one basic dynamic – the larger the plan is compared to the contribution or revenue base that supports it; the more sensitive the plan will be to risk. The measures below have been selected as the most important in understanding the primary risks identified for the plan.

Inactives per Active (Support Ratio)

One simple measure of plan maturity is the ratio of the number of inactive members (those receiving benefits and those entitled to a deferred benefit) to the number of active members. The Support Ratio is expected to increase gradually as a plan matures. The chart below shows the growth in the Support Ratio from 2014 to 2023 as the number of active members has increased by only 5%, while the number of inactives has increased by almost 40%.



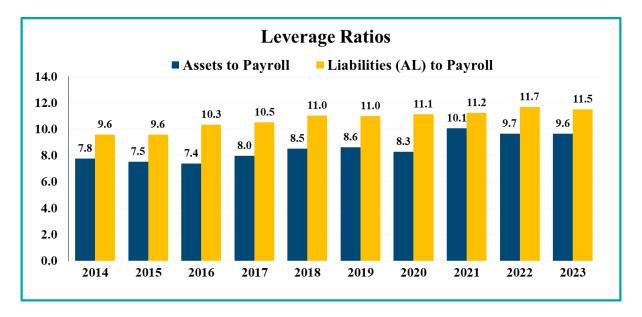


SECTION II – DISCLOSURES RELATED TO RISK

Leverage Ratios

Leverage or volatility ratios measure the size of the plan compared to its revenue base more directly. The asset leverage ratio is simply the Market Value of Assets divided by active member payroll and indicates the sensitivity of the Plan to investment returns. The liability leverage ratio is the ratio of plan's Actuarial Liability to active member payroll and indicates the sensitivity of the Plan to assumption changes or demographic experience.

The chart below shows the historical leverage ratios of the Plan. Both leverage ratios have increased since 2014.



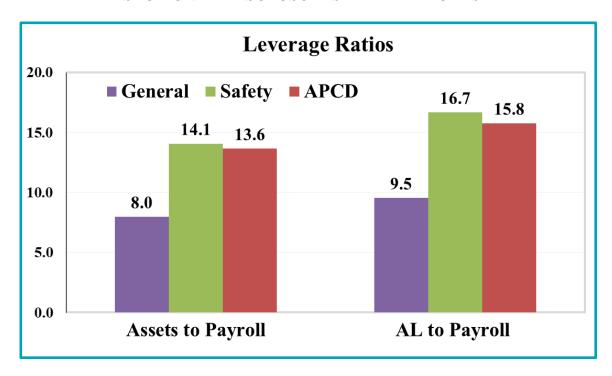
To appreciate the impact of the ratio of assets to payroll on plan cost, consider the situation for a new plan with almost no assets. Even if the assets suffer a bad year of investment returns, the impact on the plan cost is nil, because the asset level is so small.

As the Plan becomes better funded, the asset leverage ratio will increase, and if it was 100% funded, the asset leverage ratio for SBCERS would increase from 9.6 to 11.5 times payroll, or the Actuarial Liability (AL) leverage ratio.

We note that the ratio of both assets and liabilities to payroll, and therefore the sensitivity to investment returns, is higher for the Safety and APCD members compared to the General members. The Safety members have higher leverage ratios because of the higher benefit amounts and the earlier average retirement ages than General members. The APCD members have higher leverage ratios mainly because their support ratio – inactives to actives – is significantly higher (2.9 compared to 1.6 for General and 1.7 for Safety), and thus their payroll base is much smaller relative to their asset reserves and liabilities.



SECTION II - DISCLOSURES RELATED TO RISK



The General asset leverage ratio of 8.0 means that if the Plan's assets lose 10% of their value, which is a 17.00% actuarial loss compared to the expected return of 7.00%, the loss would be equivalent to 136% of payroll (17.00% times 8.0). Based on the current amortization policy and economic assumptions, the General contribution rate would ultimately increase by about 13% of payroll.

The same investment loss for the Safety group and APCD with asset leverage ratios around 14.0 would be equivalent to approximately 238% of payroll. The Safety and APCD contribution rates would ultimately increase by approximately 22%-23% of pay. Therefore, the employer contribution rates for the Safety and APCD employers will generally be much more volatile than those of the General employers.

More Detailed Assessment

While a more detailed assessment is always valuable to enhance the understanding of the risks identified above, we believe the scenarios illustrated above cover the primary risks facing the Plan at this time. We would be happy to provide the Board with a more in-depth analysis at their request.



SECTION III – ASSETS

Pension plan assets play a key role in the financial operation of the System and in the decisions the Board may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely affect employer contributions and the ultimate security of participants' benefits.

In this section, we present detailed information on System assets including:

- **Disclosure** of System assets as of June 30, 2022 and June 30, 2023,
- Statement of the **changes** in market values during the year,
- An allocation of the assets by reserve balances,
- An assessment of historical investment performance versus inflation, and
- An allocation of the assets between the **valuation subgroups**.

Disclosure

Only the Market Value of Assets is relevant for this actuarial valuation. It represents a snapshot value, which provides the principal basis for measuring financial performance from one year to the next.

As of June 30, 2014, a smoothed Actuarial Value of Assets is no longer used in the calculations of the Unfunded Actuarial Liability or funded status due to the implementation of the funding policy adopted by the Board in September 2014. This policy change was made in conjunction with the new 19-year layered amortization with phase-in of any unexpected changes in the Unfunded Actuarial Liability starting with the June 30, 2014 valuation.

Table III-1 on the next page discloses and compares the asset values as of June 30, 2022 and June 30, 2023.



SECTION III – ASSETS

Table II Statement of Assets a	Iarket Value	
Assets:	June 30, 2022	June 30, 2023
Cash and Cash Equivalents	\$ 27,858,581	\$ 41,121,871
Prepaid Expenses	5,875,751	9,584,134
Receivables:		
Contributions Receivable	10,328,573	11,259,383
Other	0	0
Accrued Interest	2,596,323	2,776,582
Dividends	4,184,490	4,958,539
Security Sales Pending	5,622,088	4,083,527
Total Receivables	\$ 22,731,474	\$ 23,078,031
Investments, at Market Value:		
Short Term Investments	53,503,207	33,587,502
Private Equity	536,428,714	575,753,381
Domestic Equity	647,512,605	742,604,837
Core Fixed Income	605,500,025	602,490,472
International Equity	340,188,189	399,593,043
Emerging Market Equity	247,858,317	259,484,278
Non-Core Fixed Income	253,407,879	282,548,539
Real Estate	450,075,726	456,311,069
Real Assets/Real Return	617,702,698	588,154,870
Private Credit	116,140,372	140,561,103
Total Investments	\$ 3,868,317,731	\$ 4,081,089,094
Other Assets:		
Collateral Held for Securities Lent	27,506,358	33,912,174
Total Assets	\$ 3,952,289,895	\$ 4,188,785,305
Liabilities:		
Accounts Payable	687,000	1,030,160
Benefits Payable	15,301,654	16,481,954
Collateral Held for Securities Lent	27,506,358	33,912,174
Other Payables	0	0
Security Purchases Pending	11,952,289	5,271,012
Total Liabilities	\$ 55,447,301	\$ 56,695,300
Market Value of Assets	\$ 3,896,842,594	\$ 4,132,090,005



SECTION III - ASSETS

Changes in Market Value

The components of asset change are:

- Contributions (employer and employee)
- Benefit payments
- Expenses (investment and administrative)
- Investment income (realized and unrealized)

Table III-2 below shows the components of change in the Market Value of Assets during the fiscal years ending June 30, 2022 and June 30, 2023.

Table III-2 Changes in Market Values						
Fiscal Year ending Fiscal Year ending						
<u>Additions</u>		June 30, 2022		June 30, 2023		
Contributions						
Employer's Contribution	\$	161,387,880	\$	157,306,924		
Members' Contributions	_	36,564,382		38,521,772		
Total Contributions	\$	197,952,261		195,828,696		
Net Investment Income						
Net Appreciation/(Depreciation) in						
Fair Value of Investments	\$	(88,162,207)	\$	252,628,608		
Interest		10,745,225		13,788,605		
Dividends		31,505,756		30,783,097		
Investment Expense		(25,001,408)		(19,955,519)		
Net Investment Income	\$	(70,912,634)	\$	277,244,791		
Securities Lending Income						
Securities Lent Income	\$	102,432	\$	815,993		
Securities Lent Expense		65,262		(460,083)		
Net Securities Lending Income	\$	167,694	\$	355,910		
Miscellaneous Income	\$	215,002	\$	184,150		
Total Additions	\$	127,422,323	\$	473,613,547		



SECTION III – ASSETS

Table III-2 Changes in Market Values (Continued)					
	F	Fiscal Year ending <u>June 30, 2022</u>		Fiscal Year ending June 30, 2023	
Deductions					
Benefit payments	\$	213,237,375	\$	229,393,136	
Refunds of Members' Contributions	_	2,079,048		2,562,820	
Total Benefit Payments	\$	215,316,423	\$	231,955,956	
Administrative & Other Expenses					
General Administrative Expenses	\$	5,518,981	\$	5,704,323	
Actuary Fees		144,110		330,075	
Fund Legal Fees		498,974		375,782	
Total Administrative & Other	\$	6,162,065	\$	6,410,180	
Expenses					
Total Deductions	\$	221,478,488	\$	238,366,136	
Net increase (Decrease)	\$	(94,056,164)	\$	235,247,411	
Net Assets Held in Trust for Pension B	enefits	S			
Beginning of Year	\$	3,990,898,759	\$	3,896,842,594	
End of Year	\$	3,896,842,594	\$	4,132,090,005	
Expected Return	\$	278,553,422	\$	271,315,351	
Actual Return		(70,529,938)		277,784,851	
Actuarial Gain/(Loss)	\$	(349,083,359)	\$	6,469,500	
Expected Return		7.00%		7.00%	
Approximate Return		-1.8%		7.2%	



SECTION III - ASSETS

Allocation of Reserve Balances

The following table shows the allocation of the assets among the various accounting reserves.

A new Interest Crediting and Undesignated Earnings Policy was established on August 25, 2010. In accordance with that policy, the Market Stabilization Account is based on the difference between the Market Value of Assets and the Actuarial Value of Assets. The Market Stabilization Account is zero under the current funding policy. The Contra Tracking Account was established with that policy. In effect, that account is the difference between the Actuarial Value of Assets, now equal to the Market Value of Assets, and the sum of the reserves in Table III-3, as long as that account is negative.

Table III-3 Allocation of Assets by Accounting Reserve Amounts for the Years Ended June 30, 2022 and June 30, 2023					
		FYE 2022		FYE 2023	
Member Deposit Reserve	\$	271,862,322	\$	294,062,612	
County and District Advance Reserve		1,238,871,872		1,286,795,613	
Retired Member Reserve		3,108,080,919		3,318,976,166	
Transferred Funds Reserve		252,018,327		269,968,333	
	\$	4,870,833,440	\$	5,169,802,724	
New Market Stabilization Reserve		0		0	
Contra Tracking Account		(973,990,846)		(1,037,712,719)	
Total Reserves	\$	3,896,842,594	\$	4,132,090,005	



SECTION III - ASSETS

Historical Investment Performance

The following table shows the historical annual asset returns on a market value basis, as well as the change in the Consumer Price Index (CPI) since 2004.

Net Return on A	Table III-4	Consumer Price Index
Year Ended June 30	Net Return at Market Value	Increase in Consumer Price Index ¹
2004	15.70%	3.3%
2005	9.90%	2.5%
2006	10.60%	4.3%
2007	16.60%	2.7%
2008	-7.20%	5.0%
2009	-19.20%	-1.4%
2010	13.40%	1.1%
2011	21.10%	3.6%
2012	1.80%	1.7%
2013	8.13%	1.8%
2014	15.00%	2.1%
2015	0.83%	0.1%
2016	1.30%	1.0%
2017	10.39%	1.6%
2018	8.00%	2.9%
2019	7.53%	1.6%
2020	0.78%	0.6%
2021	25.86%	5.4%
2022	-1.77%	9.1%
2023	7.17%	3.0%
Geometric Avera	ge	
5-Year	7.5%	3.9%
10-Year	7.2%	2.7%
20-Year	6.8%	2.6%

¹ Based on All Urban Consumers - U.S. City Average, June indices.



SECTION III - ASSETS

Allocation of Assets by Valuation Subgroup

The following table shows the allocation of the Market Value of Assets between the three valuation subgroups (General, Safety, and APCD). The assets are allocated to each subgroup based on its share of the Valuation Reserves maintained by SBCERS. The Market Value of Asset is used to calculate each subgroups' UAL and the resulting amortization payment.

Table III-5 Allocation of Assets by Subgroup for June 30, 2023 (in thousands)									
		General		Safety		APCD			Total
1.	Member Deposit Reserve	\$	210,669	\$	83,764	\$	(370)	\$	294,063
2.	County and District Advance Reserve		862,391		417,533		6,872		1,286,796
3.	Retired Member Reserve		1,884,526		1,380,623		53,827		3,318,976
4.	Transferred Funds Reserve		139,628	_	127,506		2,835		269,968
5.	Total Valuation Reserves $(1+2+3)$	\$	3,097,213	\$	2,009,425	\$	63,164	\$	5,169,803
6.	Percentage of Line 5, by Plan		59.91%		38.87%		1.22%		100.0%
7.	Market Value of Assets								4,132,090
8.	Allocated Market Value of Assets	\$	2,475,523	\$	1,606,082	\$	50,485	\$	4,132,090



SECTION IV – LIABILITIES

In this section, we present detailed information on System liabilities including:

- **Disclosure** of System liabilities at June 30, 2022 and June 30, 2023,
- Statement of **changes** in these liabilities during the year.

Disclosure

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the people ultimately using the figures and the purpose for which they are using them. Note that these liabilities are not appropriate for settlement purposes, including the purchase of annuities and the payment of lump sums.

- **Present Value of Future Benefits:** Used for measuring all future System obligations; the obligations of the System earned as of the valuation date and those to be earned in the future by current plan participants, under the current System provisions.
- Actuarial Liability: Used for funding calculations, this liability is calculated taking the Present Value of Future Benefits and subtracting the present value of future Member Contributions and future Employer Normal Costs under an acceptable actuarial funding method. The method used for this System is called the Entry Age Normal (EAN) funding method
- **Unfunded Actuarial Liability:** The excess of the Actuarial Liability over the Market Value of Assets.

Table IV-1 on the following page discloses each of these liabilities for the current and prior valuations. With respect to each disclosure, a subtraction of the appropriate value of Plan assets yields, for each respective type, a **net surplus**, or an **Unfunded Actuarial Liability**.



SECTION IV – LIABILITIES

,	Presen	t Value of Fut	ure :	able IV-1 Benefits and Ad thousands)	ctua	rial Liability		20, 2022		20, 2022
		General		Safety		APCD	Jı	une 30, 2023 Total	Ju	ne 30, 2022 Total
Present Value of Future Benefits		General		Safety		ArCD		Total		Total
Actives	\$	1,433,640	\$	887,532	\$	15,198	\$	2,336,370	\$	2,284,335
Terminated Vested	Ψ	142,259	Ψ	44,079	Ψ	2,090	Ψ	188,428	Ψ	189,681
Retirees		1,682,960		1,065,148		43,346		2,791,454		2,601,109
Disabled		54,874		137,247		0		192,121		189,551
Beneficiaries		95,142		98,418		3,345		196,905		184,330
Total Present Value of Future Benefits	\$	3,408,875	\$	2,232,424	\$	63,979	\$	5,705,278	\$	5,449,006
Actuarial Liability										
Total Present Value of Benefits	\$	3,408,875	\$	2,232,424	\$	63,979	\$	5,705,278	\$	5,449,006
Present Value of Future Normal Costs										
Employer Portion		267,672		208,991		3,233		479,896		462,550
Employee Portion		179,890		120,161		2,407		302,458		272,696
Actuarial Liability	\$	2,961,313	\$	1,903,272	\$	58,339	\$	4,922,924	\$	4,713,760
Market Value of Assets	\$	2,475,523	\$	1,606,082	\$	50,485	\$	4,132,090	\$	3,896,843
Funded Ratio		83.6%		84.4%		86.5%		83.9%		82.7%
Unfunded Actuarial Liability/(Surplus)	\$	485,790	\$	297,190	\$	7,854	\$	790,834	\$	816,917



SECTION IV – LIABILITIES

Changes in Liabilities

Each of the liabilities disclosed in the prior tables is expected to change at each valuation. The components of that change, depending upon which liability is analyzed, can include:

- New hires since the last valuation
- Benefits accrued since the last valuation
- Plan amendments increasing benefits
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Participants retiring, terminating, or dying at rates different than expected
- A change in actuarial or investment assumptions
- A change in the actuarial funding method

Unfunded liabilities will change because of all of the above, and also due to changes in System assets resulting from:

- Employer contributions different than expected
- Investment earnings different than expected
- A change in the method used to measure plan assets

	Table IV-2 Development of 2023 Experience Gain/(Loss) (in thousands)		
			Cost
1.	Unfunded Actuarial Liability (UAL) at June 30, 2022	\$	816,917
2.	Middle of year actuarial liability payment		(103,359)
3.	Interest to end of year on 1 and 2		53,628
4.	Assumption Changes		<u>-</u>
5.	Expected UAL at June 30, 2023 (1+2+3+4)	\$	767,186
6.	Actual Unfunded Liability at June 30, 2023		790,834
7.	Net Gain/(Loss): (5-6)	\$	(23,648)
8.	Portion of net gain/(loss) due to:		
	a. Investment experience gain	\$	6,469
	b. Salary increases more than expected		(20,709)
	c. Retirement experience		(10,964)
	d. Retiree COLAs more than expected		(2,887)
	e. Termination and disability experience		4,745
	f. Contribution timing lag and payroll more than expected		185
	g. Other experience	_	(487)
	h. Total gain/(loss)	\$	(23,648)



SECTION V – CONTRIBUTIONS

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level (if any) of contributions is needed to properly maintain the funding status of the System. Typically, the actuarial process will use a funding technique that will result in a pattern of contributions that are both stable and predictable.

For this System, the actuarial funding method used to determine the normal cost and the Unfunded Actuarial Liability is the Entry Age Normal (EAN) cost method. There are three primary components to the total contribution: the normal cost rate (employee and employer), the Unfunded Actuarial Liability rate (UAL rate), and assumed administrative expenses. Administrative expenses are split between employees and employers based on their share of the overall contributions.

The normal cost rate is determined in the following steps. First, an individual normal cost rate is determined by taking the value of each member's projected future benefits as of the member's entry age into the System. This value is then divided by the value of the member's expected future salary, also at entry age, producing a normal cost rate that should remain relatively constant over a member's career.

The total normal cost is computed by adding the expected dollar amount of each active member's normal cost for the current year – known as the Individual Entry Age Method. The total normal cost is adjusted with interest to the middle of the year, to reflect the fact that the normal cost contributions are paid throughout the year as member payroll payments are made. Finally, the total normal cost rate, calculated by dividing the total normal cost by expected payroll of the closed group, is reduced by the member contribution rate (including any applicable employee cost sharing) to produce the employer normal cost rate.

The Unfunded Actuarial Liability (UAL) is the difference between the EAN Actuarial Liability and the Market Value of Assets. The Unfunded Actuarial Liability payment is determined as the amount needed to fund the outstanding Unfunded Actuarial Liability resulting from the creation of Safety Plan 6 over five remaining years and the outstanding Unfunded Actuarial Liability as of June 30, 2013 over a closed period with seven years remaining, both as a level percentage of pay. Any subsequent unexpected change in the Unfunded Actuarial Liability after June 30, 2013 is amortized over 19 years that includes a five-year phase-in/out of the payments/credits for each annual layer.

The table on the following page presents the calculation of the contribution rates for the System for this valuation and compares the total contribution rate with the prior year rate. The tables on the following pages contain more details on the calculation of the UAL amortization payments, as well as details on the calculation of the contribution rates for each group and tier.



SECTION V – CONTRIBUTIONS

Table V-1 Development of the Net Employer Contribution Rate as of June 30, 2023 for FYE 2025									
		June 3	0, 2023		June 30, 2022				
	General	Safety	APCD	COMPOSITE	COMPOSITE				
1. Total Normal Cost Rate	18.22%	33.19%	16.70%	22.21%	22.53%				
2. Member Contribution Rate	<u>6.93%</u>	10.81%	6.68%	<u>7.96%</u>	<u>7.75%</u>				
3. Employer Normal Cost Rate (1-2)	11.29%	22.38%	10.02%	14.25%	14.78%				
4. UAL Amortization	22.85%	34.94%	36.10%	26.19%	<u>26.45%</u>				
5. Employer Contribution Rate (3+4)	34.14%	57.32%	46.12%	40.43%	41.23%				
6. Estimated Impact of Employee Cost-Sharing	-1.06%	-3.00%	0.00%	<u>-1.57%</u>	<u>-1.75%</u>				
7. Net Employer Contribution Rate (5+6)	33.08%	54.32%	46.12%	38.86%	39.48%				
Projected Payroll for FYE 2024	\$ 310,524,058	\$ 114,144,195	\$ 3,699,225	\$ 428,367,478	\$ 403,732,358				

The Member and Employer Contribution Rates have been explicitly loaded by 3.3% to account for anticipated administrative expenses.



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The table below presents the calculation of the UAL payments of the System as a dollar amount and as a percentage of pay under the amortization policy. The total UAL payment of the System is 26.19% as a percentage of pay, which is not the sum of the individual amortization bases, since the Safety Plan 6 UAL of 7.10% is paid only for members under Safety Plan 6. Once the (Gain)/Loss and Assumption bases are fully phased-in, the UAL payment from these sources will be 27.94% of pay.

If the UAL payment below of \$108,573,284 were calculated based on a single-equivalent period with the June 30, 2023 UAL of \$790,833,750, the number of years to fully pay off the unfunded liability would be nine years.

				Table V-2					
				of Amortization Pay					
			<i></i>	2023 Actuarial Va					
	Date	Initial	Initial Amortization	June 30, 2023 Outstanding	Remaining Amortization	Current Phase-In	Amortization	% of	% of Pay After
Type of Base	Established	Amount	Years	Balance	Years	Percentage	Amount	Pay ²	Phase-In ²
 Safety Plan 6 Base¹ 	6/30/2011	\$ 12,800,000	17	\$ 7,718,989	5	N/A	\$ 1,720,859	7.10%	7.10%
2. Remaining UAL	6/30/2013	803,940,900	17	538,943,240	7	N/A	89,025,918	21.47%	21.47%
3. (Gain)/Loss Base	6/30/2014	(227,291,825)	19	(193,904,936)	10	100%	(28,656,529)	-6.91%	-6.91%
4. (Gain)/Loss Base	6/30/2015	137,382,857	19	125,200,974	11	100%	16,737,424	4.04%	4.04%
5. (Gain)/Loss Base	6/30/2016	117,812,662	19	113,281,198	12	100%	13,869,921	3.34%	3.34%
6. Assumption Changes	6/30/2016	215,838,077	19	207,536,232	12	100%	25,410,318	6.13%	6.13%
7. (Gain)/Loss Base	6/30/2017	(83,693,202)	19	(84,457,324)	13	100%	(9,566,102)	-2.31%	-2.31%
8. Assumption Change	6/30/2017	(29,683,810)	19	(29,954,825)	13	100%	(3,392,848)	-0.82%	-0.82%
9. (Gain)/Loss Base	6/30/2018	869,981	19	913,821	14	100%	96,542	0.02%	0.02%
10. (Gain)/Loss Base	6/30/2019	25,594,711	19	27,791,475	15	100%	2,757,532	0.66%	0.66%
11. Assumption Change	6/30/2019	(7,455,037)	19	(8,094,894)	15	100%	(803,193)	-0.19%	-0.19%
12. (Gain)/Loss Base	6/30/2020	234,967,694	19	257,451,772	16	80%	19,662,162	4.74%	5.93%
13. Assumption Change	6/30/2020	19,124,525	19	20,954,552	16	80%	1,600,346	0.39%	0.48%
14. (Gain)/Loss Base	6/30/2021	(603,151,064)	19	(653,161,242)	17	60%	(36,751,346)	-8.86%	-14.77%
15. (Gain)/Loss Base	6/30/2022	339,628,618	19	356,676,764	18	40%	13,394,390	3.23%	8.08%
16. Assumption Change	6/30/2022	76,452,344	19	80,289,979	18	40%	3,015,154	0.73%	1.82%
17. (Gain)/Loss Base	6/30/2023	80,289,979	19	23,647,976	19	20%	452,736	0.11%	0.55%
Total				\$ 790,833,750			\$ 108,573,284	26.19%	27.94%

¹ Original amortization base for increase in benefits established in 6/30/2007 with a 15-year period. In 2011, the outstanding balance was re-amortized over a closed 17-year period.

² Includes explicit administrative expense load. Safety Plan 6 Base is shown as a percentage of the Safety Plan 6 payroll only.



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The table below and on the following two pages present the calculation of the UAL payments of the System as a dollar amount and as a percentage of pay under the amortization policy, broken out by group.

	Table V-2(a) General Development of Amortization Payment For the June 30, 2023 Actuarial Valuation											
	Type of Base	Date Established	Initial Amortization Years	June 30, 2023 Outstanding Balance	Remaining Amortization Years	Current Phase-In Percentage	Amortization Amount	% of Pay¹	% of Pay After Phase-In¹			
1.	Remaining UAL	6/30/2013	17	\$ 335,934,991	7	N/A	\$ 55,491,782	18.46%	18.46%			
2.	(Gain)/Loss Base	6/30/2014	19	(112,669,139)	10	100%	(16,650,976)	-5.54%	-5.54%			
3.	(Gain)/Loss Base	6/30/2015	19	79,258,629	11	100%	10,595,647	3.52%	3.52%			
4.	(Gain)/Loss Base	6/30/2016	19	71,246,321	12	100%	8,723,256	2.90%	2.90%			
5.	Assumption Changes	6/30/2016	19	133,977,982	12	100%	16,403,994	5.46%	5.46%			
6.	(Gain)/Loss Base	6/30/2017	19	(52,677,600)	13	100%	(5,966,555)	-1.98%	-1.98%			
7.	Assumption Change	6/30/2017	19	(18,787,459)	13	100%	(2,127,971)	-0.71%	-0.71%			
8.	(Gain)/Loss Base	6/30/2018	19	(4,747,718)	14	100%	(501,581)	-0.17%	-0.17%			
9.	(Gain)/Loss Base	6/30/2019	19	11,784,229	15	100%	1,169,257	0.39%	0.39%			
10.	Assumption Change	6/30/2019	19	19,606,011	15	100%	1,945,352	0.65%	0.65%			
11.	(Gain)/Loss Base	6/30/2020	19	153,547,519	16	80%	11,726,764	3.90%	4.88%			
12.	Assumption Change	6/30/2020	19	15,551,643	16	80%	1,187,713	0.40%	0.49%			
13.	(Gain)/Loss Base	6/30/2021	19	(392,831,004)	17	60%	(22,103,376)	-7.35%	-12.25%			
14.	(Gain)/Loss Base	6/30/2022	19	210,660,645	18	40%	7,911,003	2.63%	6.58%			
15.	Assumption Change	6/30/2022	19	10,076,862	18	40%	378,419	0.13%	0.31%			
16.	(Gain)/Loss Base	6/30/2023	19	25,857,850	19	20%	495,044	0.16%	0.82%			
	Total			\$ 485,789,761			\$ 68,677,773	22.85%	23.82%			

¹ Includes explicit administrative expense load.



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Table V-2(b) Safety Development of Amortization Payment For the June 30, 2023 Actuarial Valuation

			ror	tne June 30, 2023	Actuariai vaiu	ation			
	Type of Base	Date Established	Initial Amortization Years	June 30, 2023 Outstanding Balance	Remaining Amortization Years	Current Phase-In Percentage	Amortization Amount	% of Pay ²	% of Pay After Phase-In ²
1.	Safety Plan 6 Base ¹	6/30/2011	17	\$ 7,718,989	6	N/A	\$ 1,720,859	7.10%	7.10%
2.	Remaining UAL	6/30/2013	17	196,387,639	7	N/A	32,440,503	29.36%	29.36%
3.	(Gain)/Loss Base	6/30/2014	19	(79,039,381)	10	100%	(11,680,952)	-10.57%	-10.57%
4.	(Gain)/Loss Base	6/30/2015	19	44,127,317	11	100%	5,899,136	5.34%	5.34%
5.	(Gain)/Loss Base	6/30/2016	19	41,874,793	12	100%	5,127,065	4.64%	4.64%
6.	Assumption Changes	6/30/2016	19	71,074,383	12	100%	8,702,204	7.88%	7.88%
7.	(Gain)/Loss Base	6/30/2017	19	(29,892,552)	13	100%	(3,385,795)	-3.06%	-3.06%
8.	Assumption Change	6/30/2017	19	(10,807,498)	13	100%	(1,224,117)	-1.11%	-1.11%
9.	(Gain)/Loss Base	6/30/2018	19	4,808,646	14	100%	508,018	0.46%	0.46%
10.	(Gain)/Loss Base	6/30/2019	19	14,358,106	15	100%	1,424,643	1.29%	1.29%
11.	Assumption Change	6/30/2019	19	(28,250,408)	15	100%	(2,803,069)	-2.54%	-2.54%
12.	(Gain)/Loss Base	6/30/2020	19	100,772,516	16	80%	7,696,220	6.97%	8.71%
13.	Assumption Change	6/30/2020	19	5,309,812	16	80%	405,522	0.37%	0.46%
14.	(Gain)/Loss Base	6/30/2021	19	(251,421,805)	17	60%	(14,146,721)	-12.80%	-21.34%
15.	(Gain)/Loss Base	6/30/2022	19	141,797,277	18	40%	5,324,956	4.82%	12.05%
16.	Assumption Change	6/30/2022	19	69,809,721	18	40%	2,621,586	2.37%	5.93%
17.	(Gain)/Loss Base	6/30/2023	19	(1,437,754)	19	20%	(27,526)	<u>-0.02%</u>	<u>-0.12%</u>
	Total			\$ 297,189,801			\$ 38,602,534	34.94%	38.92%

¹ Original amortization base for increase in benefits established in 6/30/2007 with a 15-year period. In 2011, the outstanding balance was re-amortized over a closed 17-year period.



² Includes explicit administrative expense load. Safety Plan 6 Base is shown as a percentage of the Safety Plan 6 payroll only.

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Table V-2(c) APCD Development of Amortization Payment For the June 30, 2023 Actuarial Valuation

			ror	tne .	June 30, 2023	Actuarial Valu	ation				
	Type of Base	Date Established	Initial Amortization Years		ne 30, 2023 Outstanding Balance	Remaining Amortization Years	Current Phase-In Percentage	Aı	mortization Amount	% of Pay¹	% of Pay After Phase-In¹
1.	Remaining UAL	6/30/2013	17	\$	6,620,610	7	N/A	\$	1,093,633	30.54%	30.54%
2.	(Gain)/Loss Base	6/30/2014	19		(2,196,416)	10	100%		(324,601)	-9.06%	-9.06%
3.	(Gain)/Loss Base	6/30/2015	19		1,815,028	11	100%		242,641	6.78%	6.78%
4.	(Gain)/Loss Base	6/30/2016	19		160,084	12	100%		19,600	0.55%	0.55%
5.	Assumption Changes	6/30/2016	19		2,483,867	12	100%		304,120	8.49%	8.49%
6.	(Gain)/Loss Base	6/30/2017	19		(1,887,172)	13	100%		(213,751)	-5.97%	-5.97%
7.	Assumption Change	6/30/2017	19		(359,867)	13	100%		(40,761)	-1.14%	-1.14%
8.	(Gain)/Loss Base	6/30/2018	19		852,893	14	100%		90,105	2.52%	2.52%
9.	(Gain)/Loss Base	6/30/2019	19		1,649,140	15	100%		163,631	4.57%	4.57%
10.	Assumption Change	6/30/2019	19		549,503	15	100%		54,523	1.52%	1.52%
11.	(Gain)/Loss Base	6/30/2020	19		3,131,738	16	80%		239,178	6.68%	8.35%
12.	Assumption Change	6/30/2020	19		93,097	16	80%		7,110	0.20%	0.25%
13.	(Gain)/Loss Base	6/30/2021	19		(8,908,433)	17	60%		(501,250)	-14.00%	-23.33%
14.	(Gain)/Loss Base	6/30/2022	19		4,218,842	18	40%		158,431	4.42%	11.06%
15.	Assumption Change	6/30/2022	19		403,395	18	40%		15,149	0.42%	1.06%
16.	(Gain)/Loss Base	6/30/2023	19		(772,119)	19	20%		(14,782)	<u>-0.41%</u>	<u>-2.06%</u>
	Total			\$	7,854,188			\$	1,292,977	36.10%	34.11%

¹ Includes explicit administrative expense load.



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As discussed earlier, a portion of the UAL attributable to the implementation of Safety Plan 6 is being amortized over a separate period from the rest of UAL. Beginning with the 2011 actuarial valuation, the outstanding balance of the Safety Plan 6 UAL is being amortized over a closed 17-year period; five years are now remaining. The amortization payment for this separate base is applied only to the payroll of the Safety Plan 6 members.

Since the Safety Plan 6 is a closed group, its payroll has been declining over the last several years and the extra amortization payment rate as a percentage of payroll has been increasing. It will continue to increase in future years since the Plan 6 payroll is expected to continue to decrease while the amortization payment amount will increase with assumed wage growth of 3.00%.

Table V-3 below contains the details of the calculations of the Safety UAL rates for the Plan 6 members.

Table V-3 Development of Safety UAL Amortization	ı Rat	es
June 30, 2023 Plan 6 Outstanding Balance	\$	7,718,989
5-year amortization factor		0.222938
Safety Plan 6 closed payroll	\$	25,048,714
Middle of year payment		1,720,859
Extra Plan 6 UAL Amortization Rate		6.87%
- including Administrative Expense Load		7.10%
Safety UAL less Extra Plan 6	\$	289,470,812
Middle of year payment		36,881,675
Total Safety Payroll		114,144,195
UAL Rate without Extra Plan 6		32.31%
- including Administrative Expense Load		33.38%
UAL Rate - Plan 6 including Admin Expense Load		40.48%



SECTION V – CONTRIBUTIONS

Tables V-4 through V-7 show the calculations of the employer contribution rates for each group and tier, as well as a comparison to the prior year rates.

Development of the General N	et Employe		Table V-4	June 30, 202.	3 for FYE 20	25 (Prior to	Cost-Sharing		
							PEPRA Plan		
	5A	5B	5C	Plan 2	Plan 7	2% COLA	3% COLA	LAFCO ¹	Total
Current Year									
A. Basic Employer Normal Cost Rate	9.63%	8.19%	10.73%	3.54%	12.59%	7.01%	7.18%	7.18%	8.39%
B. COLA Normal Cost Rate	4.24%	5.00%	4.60%	0.00%	3.61%	<u>1.47%</u>	2.02%	2.02%	<u>2.90%</u>
C. Employer Normal Cost Rate	13.87%	13.19%	15.33%	3.54%	16.20%	8.48%	9.20%	9.20%	11.29%
D. Basic UAL Contribution Rate	15.47%	15.47%	15.47%	15.47%	15.47%	15.47%	15.47%	0.49%	15.47%
E. COLA UAL Contribution Rate	7.38%	7.38%	7.38%	7.38%	7.38%	<u>7.38%</u>	7.38%	0.24%	<u>7.38%</u>
F. UAL Contribution Rate	22.85%	22.85%		·			22.85%	0.73%	22.85%
G. Total June 30, 2023 Contribution Rate (C+F)	36.72%	36.04%	38.18%	26.39%	39.05%	31.33%	32.05%	9.93%	34.14%
Projected Payroll for FYE 2024 (in thousands)	\$ 18,117	\$ 38,004	\$ 72,613	\$ 262	\$ 11,274	\$ 160,255	\$ 9,737	\$ 264	\$ 310,524
Prior Year									
A. Basic Employer Normal Cost Rate	9.58%	8.54%	10.93%	3.32%	12.73%	7.02%	7.30%	7.30%	8.67%
B. COLA Normal Cost Rate	4.22%	5.13%	4.66%	0.00%	3.65%	<u>1.47%</u>	2.05%	2.05%	<u>3.10%</u>
C. Employer Normal Cost Rate	13.80%	13.67%	15.59%	3.32%	16.38%	8.49%	9.35%	9.35%	11.77%
D. Basic UAL Contribution Rate	15.90%	15.90%	15.90%	15.90%	15.90%	15.90%	15.90%	n/a	15.90%
E. COLA UAL Contribution Rate	7.44%	<u>7.44%</u>	7.44%	7.44%	7.44%	<u>7.44%</u>	<u>7.44%</u>	n/a	<u>7.44%</u>
F. UAL Contribution Rate	23.34%	23.34%	23.34%	23.34%	23.34%	23.34%	23.34%	n/a	23.34%
G. Total June 30, 2022 Contribution Rate (C+F)	37.14%	37.01%	38.93%	26.66%	39.72%	31.83%	32.69%	9.35%	35.11%
Projected Payroll for FYE 2023 (in thousands)	\$ 22,640	\$ 38,102	\$ 75,687	\$ 328	\$ 11,435	\$ 133,671	\$ 8,349	\$ 141	\$ 290,353

¹ Beginning with the Plan Year July 1, 2020, LAFCO was a new employer and paid only the normal cost rate since there was no additional UAL as of June 30, 2021. As of the June 30, 2023 valuation, there are three new General UAL payments equal to 2.92% of General payroll and the recommended phase-in for the LAFCO UAL payment is 25% of the UAL payment, or 0.73%.



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Table V-5 Development of the Safety Net Employer Contribution Rate as of June 30, 2023 for FYE 2025 (Prior to Cost Sharing)														
		4A		4B		4C		6A		6B	I	PEPRA		Total
Current Year														
A. Basic Employer Normal Cost Rate		19.12%		20.23%		17.91%		25.69%		19.57%		11.51%		15.43%
B. COLA Normal Cost Rate		<u>9.49%</u>		<u>11.12%</u>		<u>8.83%</u>		<u>10.67%</u>		<u>9.94%</u>		4.07%		<u>6.95%</u>
C. Employer Normal Cost Rate		28.61%		31.35%		26.74%		36.36%		29.51%		15.58%		22.38%
D. Basic UAL Contribution Rate		20.81%		20.81%		20.81%		25.24%		25.24%		20.81%		21.79%
E. COLA UAL Contribution Rate		<u>12.57%</u>		<u>12.57%</u>		<u>12.57%</u>		<u>15.24%</u>		<u>15.24%</u>		<u>12.57%</u>		<u>13.15%</u>
F. UAL Contribution Rate		33.38%		33.38%		33.38%		40.48%		40.48%		33.38%		34.94%
G. Total June 30, 2023 Contribution Rate (C+F)		61.99%		64.73%		60.12%		76.84%		69.99%		48.96%		57.32%
Projected Payroll for FYE 2024 (in thousands)	\$	2,762	\$	1,822	\$	31,162	\$	597	\$	24,451	\$	53,350	\$	114,144
Prior Year														
A. Basic Employer Normal Cost Rate		19.17%		20.02%		17.90%		20.88%		19.55%		11.52%		15.69%
B. COLA Normal Cost Rate		9.27%		10.69%		8.84%		9.76%		9.93%		4.07%		<u>7.13%</u>
C. Employer Normal Cost Rate		28.44%		30.71%		26.74%		30.64%		29.48%		15.59%		22.82%
D. Basic UAL Contribution Rate		20.64%		20.64%		20.64%		24.87%		24.87%		20.64%		21.63%
E. COLA UAL Contribution Rate		<u>12.17%</u>		<u>12.17%</u>		12.17%		<u>14.66%</u>		<u>14.66%</u>		<u>12.17%</u>		<u>12.75%</u>
F. UAL Contribution Rate		32.81%		32.81%		32.81%		39.53%		39.53%		32.81%		34.38%
G. Total June 30, 2022 Contribution Rate (C+F)		61.25%		63.52%		59.55%		70.17%		69.01%		48.40%		57.20%
Projected Payroll for FYE 2023 (in thousands)	\$	3,041	\$	1,650	\$	32,051	\$	1,180	\$	24,479	\$	47,356	\$	109,757



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Table V-6 Development of the APCD Net Employer Contribution Rate as of June 30, 2023 for FYE 2025 (Prior to Cost Sharing

Development of the APCD Net Employer Contribution	on Rate as of Ju	ne 30, 2023 for	FYE 2025 (Pr	ior to Cost Sh	aring)
	Plan 1	Plan 2	Plan 7	PEPRA	Total
Current Year					
A. Basic Employer Normal Cost Rate	6.80%	7.45%	12.59%	5.74%	7.33%
B. COLA Normal Cost Rate	<u>3.57%</u>	<u>5.07%</u>	<u>3.61%</u>	<u>1.26%</u>	<u>2.69%</u>
C. Employer Normal Cost Rate	10.37%	12.52%	16.20%	7.00%	10.02%
D. Basic UAL Contribution Rate	23.51%	23.51%	23.51%	23.51%	23.51%
E. COLA UAL Contribution Rate	<u>12.59%</u>	<u>12.59%</u>	<u>12.59%</u>	<u>12.59%</u>	<u>12.59%</u>
F. UAL Contribution Rate	36.10%	36.10%	36.10%	36.10%	36.10%
G. Total June 30, 2023 Contribution Rate (C+F)	46.47%	48.62%	52.30%	43.10%	46.12%
Projected Payroll for FYE 2024 (in thousands)	\$ 329	\$ 842 \$	478 \$	2,051 \$	3,699
Prior Year					
A. Basic Employer Normal Cost Rate	6.85%	7.67%	12.75%	5.87%	7.56%
B. COLA Normal Cost Rate	3.57%	<u>5.18%</u>	3.65%	1.28%	3.00%
C. Employer Normal Cost Rate	10.42%	12.85%	16.40%	7.15%	10.56%
D. Basic UAL Contribution Rate	23.53%	23.53%	23.53%	23.53%	23.53%
E. COLA UAL Contribution Rate	<u>11.99%</u>	<u>11.99%</u>	<u>11.99%</u>	<u>11.99%</u>	<u>11.99%</u>
F. UAL Contribution Rate	35.52%	35.52%	35.52%	35.52%	35.52%
G. Total June 30, 2022 Contribution Rate (C+F)	45.94%	48.37%	51.92%	42.67%	46.08%
Projected Payroll for FYE 2023 (in thousands)	\$ 318 5	\$ 1,089 \$	454 \$	1,761 \$	3,622



SECTION V – CONTRIBUTIONS

Table V-7 Development of the PEPRA Member and Net Employer Contribution Rates as of June 30, 2023 for FYE 2025

as a		23 for FYE 202			
		General			
	2% COLA	3% COLA	LAFCO	Safety	APCD
Current Year					
Basic Member Contribution Rate	7.01%	7.18%	7.18%	11.51%	5.74%
COLA Member Contribution Rate	<u>1.47%</u>	<u>2.02%</u>	2.02%	4.07%	<u>1.26%</u>
Member Contribution Rate	8.48%	9.20%	9.20%	15.58%	7.00%
Basic Employer Normal Cost Rate	7.01%	7.18%	7.18%	11.51%	5.74%
COLA Employer Normal Cost Rate	<u>1.47%</u>	2.02%	2.02%	4.07%	1.26%
Employer Normal Cost Rate	8.48%	9.20%	9.20%	15.58%	7.00%
Basic UAL Contribution Rate	15.47%	15.47%	0.49%	20.81%	23.51%
COLA UAL Contribution Rate	<u>7.38%</u>	<u>7.38%</u>	0.24%	<u>12.57%</u>	<u>12.59%</u>
Employer UAL Contribution Rate	22.85%	22.85%	0.73%	33.38%	36.10%
Employer Contribution Rate	31.33%	32.05%	9.93%	48.96%	43.10%
Prior Year					
Basic Member Contribution Rate	7.01%	7.30%	7.30%	11.52%	5.87%
COLA Member Contribution Rate	<u>1.47%</u>	<u>2.05%</u>	2.05%	4.07%	<u>1.28%</u>
Member Contribution Rate	8.48%	9.35%	9.35%	15.59%	7.15%
Basic Employer Normal Cost Rate	7.02%	7.30%	7.30%	11.52%	5.87%
COLA Employer Normal Cost Rate	1.47%	2.05%	2.05%	4.07%	1.28%
Employer Normal Cost Rate	8.49%	9.35%	9.35%	15.59%	7.15%
Basic UAL Contribution Rate	15.90%	15.90%	n/a	20.64%	23.53%
COLA UAL Contribution Rate	<u>7.44%</u>	<u>7.44%</u>	n/a	12.17%	<u>11.99%</u>
Employer UAL Contribution Rate	23.34%	23.34%	n/a	32.81%	35.52%
Employer Contribution Rate	31.83%	32.69%	9.35%	48.40%	42.67%



SECTION VI – ANNUAL COMPREHENSIVE FINANCIAL REPORTING INFORMATION

GASB 67 became effective June 30, 2014 for the Plan and GASB 68 became effective for the fiscal year ending June 30, 2015 for the Employers. The disclosures needed to satisfy the GASB requirements can be found in the SBCERS GASB 67/68 Report as of June 30, 2023.

In accordance with Government Finance Officers Association (GFOA) and their recommended checklist for Annual Comprehensive Financial Reports, the Schedule of Funded Liabilities by Type (formerly known as the Solvency Test), Actuarial Analysis of Financial Experience, and the Schedule of Funding Progress disclosures are included below.

						Tab	le VI-1			
	SCHEDULE OF FUNDED LIABILITIES BY TYPE (dollars in thousands)									
(A) (B) (C) Remaining Portion of Actuarial										
Valuation Date		Active Member		Retirees And	,	Active Members'	Donouted		Liabilities Cove	
June 30,		itributions	В	eneficiaries		Liabilities	Reported Assets ¹	(A)	by Reported As (B)	(C)
2023	\$	294,063	\$	3,368,908	\$	1,259,953	\$ 4,132,090	100%	100%	37%
2022		271,862		3,164,672		1,277,226	3,896,843	100%	100%	36%
2021		254,026		2,875,477		1,331,489	3,990,899	100%	100%	65%
2020		230,743		2,774,353		1,292,632	3,193,932	100%	100%	15%
2019		217,070		2,610,235		1,253,333	3,198,134	100%	100%	30%
2018		203,168		2,463,993		1,220,966	3,002,019	100%	100%	27%
2017		187,084		2,295,926		1,219,287	2,801,307	100%	100%	26%
2016		183,954		2,142,873		1,244,971	2,554,539	100%	100%	18%
2015		178,233		1,926,975		1,125,926	2,532,529	100%	100%	38%
2014		174,958		1,822,654		1,100,403	2,513,630	100%	100%	47%

Actuarial Value of Assets. As of June 30 2014, the Actuarial Value of Assets is the Market Value of Assets.

The Schedule of Funded Liabilities by Type shows the portion of actuarial liabilities for active member contributions, inactive members, and the employer-financed portion of the active members that are covered by the Actuarial Value of Assets. As of June 30, 2016, the assumed rate of investment return was reduced from 7.50% to 7.00%.



SECTION VI – ANNUAL COMPREHENSIVE FINANCIAL REPORTING INFORMATION

Table VI-2 ACTUARIAL ANALYSIS OF FINANCIAL EXPERIEN (dollars in thousands)	CE	
Unfunded Actuarial Liability (UAL) as of June 30, 2022	\$	816,917
Expected Change in UAL Assumption Changes		(49,731) 0
Actuarial (Gains) or Losses During the Year		
Asset Return (Greater) or Less than Expected	\$	(6,469)
Salary Increases Greater or (Less) than Expected		20,709
All Other (Including Demographic Experience)		9,408
Total Changes	\$	(26,083)
Unfunded Actuarial Liability (UAL) as of June 30, 2023	\$	790,834

Table VI-3 Schedule of Funding Progress										
Actuarial Valuation Date	Actuarial Value of Assets ¹	Actuarial Liability (AL)	lollars in thousands Unfunded AL	Funded Ratio	Covered Payroll	Unfunded AL as a % of Covered Payroll				
June 30, 2023	\$ 4,132,090	\$ 4,922,924	\$ 790,834	83.9%	\$ 428,367	184.6%				
June 30, 2022	3,896,843	4,713,760	816,917	82.7%	403,732	202.3%				
June 30, 2021	3,990,899	4,460,991	470,092	89.5%	397,040	118.4%				
June 30, 2020	3,193,932	4,297,728	1,103,796	74.3%	386,137	285.9%				
June 30, 2019	3,198,134	4,080,639	882,505	78.4%	370,936	237.9%				
June 30, 2018	3,002,019	3,888,126	886,107	77.2%	353,016	251.0%				
June 30, 2017	2,801,307	3,702,297	900,990	75.7%	351,829	256.1%				
June 30, 2016	2,554,539	3,356,333	801,794	76.1%	346,975	231.1%				
June 30, 2015	2,532,529	3,231,134	698,605	78.4%	336,982	207.3%				
June 30, 2014	2,513,630	3,098,014	584,384	81.1%	323,831	180.5%				

¹As of June 30, 2014 the Actuarial Value of Assets is the Market Value of Assets.



APPENDIX A – MEMBERSHIP INFORMATION

The data for this valuation was provided by the System staff as of June 30, 2023. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

SBCERS' Membership

SBCERS Weinbersinp			
As of June 30, 2022 and 2023		2022	2023
Members Now Receiving Benefit	S		
Serv	ice Retirement	4,139	4,272
Disa	bility Retirement	285	278
Bene	eficiaries and Survivors	651	681
Subt	otal	5,075	5,231
Active Members			
Activ	ve Vested Members	3,049	3,001
Activ	ve Nonvested Members	1,230	1,388
Subt	otal	4,279	4,389
Deferred Vested and Inactive Me	1,784	1,867	
Total Membership		11,138	11,487

	Schedu	ule of Aver	age Benefit	Payments				
Years of Service Credit								
June 30, 2023	0-4	5-9	10-14	15-19	20-24	25-29	30+	
Average Monthly Benefit	\$860	\$1,443	\$2,171	\$3,228	\$4,389	\$6,146	\$8,355	
Average Annual Benefit	10,320	17,316	26,052	38,736	52,668	73,752	100,260	
Number of Members in Pay Status	442	834	1,026	771	718	591	849	



APPENDIX A – MEMBERSHIP INFORMATION

Schedule of Active Member Valuation Data

Valuation Date	Plan	Active Members	Aı	nnual Salary ¹	Average ¹	% Increase in Average Salary
June 30, 2023	General	3,417	\$	308,774,545	\$ 90,364	6.47%
	Safety	939		111,118,603	118,337	4.52%
	APCD	33		3,536,235	107,159	2.17%
	Total	4,389	\$	423,429,383	96,475	5.84%

¹Based on salary data provided in the June 30, 2023 valuation data for FYE 2023.

	Sched	ule	of Retirees &	& Beneficiaries	Add	led to and	Removed	fro	om Retireme	nt Payroll		
	Ado	ded	to rolls	Removed	Removed from rolls		Rolls at end of year					
Fiscal Year	Number	A	Annual Allowance ¹	Number	A	Annual Allowance	Number		Annual Allowance	% Increase in Retiree Allowance	A	Average Annual lowance
2014	203	\$	6,842,058	-79	\$	2,112,523	3,897	\$	132,766,493	4.8%	\$	34,069
2015	241	\$	9,044,486	-108	\$	2,627,746	4,030	\$	141,193,001	6.3%	\$	35,016
2016	244	\$	9,705,939	-103	\$	2,534,190	4,171	\$	149,683,889	6.0%	\$	35,886
2017	314	\$	13,124,187	-110	\$	3,255,813	4,375	\$	162,510,138	8.6%	\$	37,146
2018	270	\$	10,896,350	-126	\$	3,280,607	4,519	\$	174,765,068	7.5%	\$	38,673
2019	294	\$	12,466,673	-133	\$	4,484,686	4,680	\$	187,679,334	7.4%	\$	40,102
2020	269	\$	11,952,403	-105	\$	3,671,844	4,844	\$	201,478,012	7.4%	\$	41,593
2021	208	\$	8,791,425	-146	\$	5,740,837	4,906	\$	208,961,900	3.7%	\$	42,593
2022	320	\$	15,793,183	-151	\$	5,131,256	5,075	\$	225,793,228	8.1%	\$	44,491
2023	317	\$	15,059,037	-161	\$	5,252,581	5,231	\$	242,115,926	7.2%	\$	46,285

¹ Annual allowance added during the year does not include COLAs granted in year to continuing retirees and beneficiaries.



APPENDIX A – MEMBERSHIP INFORMATION

SBCERS Membership - Active Members as of June 30, 2023 Average Average **Monthly** Vesting Annual Salary¹ Average Age Salary¹ Count Service Group General Members Plan 2 3 \$253,000 \$7,028 62.0 30.0 Plan 5A 179 17,772,000 57.3 8,274 29.4 Plan 5B 51.6 274 36,984,000 11,248 19.0 Plan 5C 859 72,318,000 51.0 7,016 19.1 Plan 7 100 11,231,000 46.0 9,359 13.8 **PEPRA** 39.7 2,002 170,216,000 7,085 4.1 **Total** 3,417 \$308,774,000 44.6 \$7,530 10.7 **APCD Members** Plan 1 3 59.7 \$318,000 \$8,833 33.3 Plan 2 6 812,000 44.2 11,278 14.3

462,000

1,944,000

\$3,536,000

\$2,656,000

30,519,000

24,867,000

50,451,000

\$111,119,000

\$423,429,000

1,751,000

875,000

46.0

33.5

38.9

52.9

48.6

46.9

59.6

46.6

34.8

40.9

43.8

12,833

7,714

\$8,930

\$13,020

12,160

10,869

14,583

10,737

8,796

9,861

\$8,040

3

<u>21</u>

33

17

12

5

234

193

<u>478</u>

939

4,389



Plan 7

Total

Safety Members Plan 4A

Plan 4B

Plan 4C

Plan 6A

Plan 6B

PEPRA

Total

Total Actives

PEPRA

18.7

4.5

10.2

21.6

21.3

19.0

30.2

18.4

4.8

11.8

11.0

¹Based on salary data provided in the June 30, 2023 valuation data for FYE 2023.

APPENDIX A – MEMBERSHIP INFORMATION

SBCERS Membership - Schedule of Active Member Valuation Data

Valuation Date	Plan	Count	Annual Salary ¹	Average Annual Salary ¹	Increase in Average Salary
June 30, 2017	General	3,315	\$242,037,608	\$73,013	2.51%
	APCD	35	2,886,965	\$82,485	5.19%
	Safety	<u>949</u>	91,187,124	\$96,088	2.30%
	Total	4,299	\$336,111,696	\$78,184	2.78%
June 30, 2018	General	3,212	\$246,464,767	\$76,732	5.09%
	APCD	30	2,585,875	\$86,196	4.50%
	Safety	<u>929</u>	91,508,536	\$98,502	2.51%
	Total	4,171	\$340,559,179	\$81,649	4.43%
June 30, 2019	General	3,293	\$254,877,894	\$77,400	0.87%
ŕ	APCD	32	2,917,484	\$91,171	5.77%
	Safety	<u>944</u>	95,991,720	\$101,686	3.23%
	Total	4,269	\$353,787,098	\$82,874	1.50%
June 30, 2020	General	3,327	\$268,092,934	\$80,581	4.11%
	APCD	33	3,116,418	\$94,437	3.58%
	Safety	<u>962</u>	101,475,166	\$105,484	3.74%
	Total	4,322	\$372,684,519	\$86,230	4.05%
June 30, 2021	General	3,327	\$275,536,788	\$82,818	2.78%
	APCD	34	3,415,541	\$100,457	6.37%
	Safety	<u>960</u>	105,176,155	\$109,558	3.86%
	Total	4,321	\$384,128,484	\$88,898	3.09%
June 30, 2022	General	3,321	\$281,864,557	\$84,873	2.48%
	APCD	33	3,461,291	\$104,888	4.41%
	Safety	<u>925</u>	104,730,974	\$113,223	3.35%
	Total	4,279	\$390,056,822	\$91,156	2.54%
June 30, 2023	General	3,417	\$308,774,545	\$90,364	6.47%
	APCD	33	3,536,235	\$107,159	2.17%
	Safety	<u>939</u>	111,118,603	\$118,337	4.52%
	Total	4,389	\$423,429,383	\$96,475	5.84%

¹Based on salary data provided in the valuation census data.



APPENDIX A – MEMBERSHIP INFORMATION

SBCERS Membership – Deferred Vested Members as of June 30, 2023

SBCERS Membership Deferred Vested and Inactive Members as of June 30, 2023									
Group	Count	Average Age							
General Members	Count	1150							
Plan 2	14	62.6							
Plan 5A	105	58.9							
Plan 5B	382	52.4							
Plan 5C	330	47.6							
Plan 7	79	46.1							
PEPRA	681	39.2							
Total	1,591	45.9							
APCD Members									
Plan 1	3	58.0							
Plan 2	9	42.6							
PEPRA	7_	38.1							
Total	19	43.4							
Safety Members									
Plan 4A	3	54.0							
Plan 4B	35	50.3							
Plan 4C	41	44.3							
Plan 6A	10	60.1							
Plan 6B	65	42.9							
PEPRA	103	35.6							
Total	257	42.0							
Total Inactives	1,867	45.4							



APPENDIX A – MEMBERSHIP INFORMATION

SBCERS Membership – Members in Pay Status as of June 30, 2023

SBCERS Me	mbership –	- Member	s in Pay Stat	us as of June 3	30, 2023
Group	Count	Average Current Age	Average Retirement Age ¹	Monthly Allowances	Average Monthly Benefit
General Members					
Plan 1	522	84.6	56.9	\$995,100	\$1,906
Plan 2	69	72.6	61.6	55,700	807
Plan 3	6	70.7	56.4	7,800	1,298
Plan 4A	160	80.3	59.0	433,200	2,708
Plan 4B	4	77.8	55.6	1,300	334
Plan 5A	1,889	70.8	59.5	7,828,400	4,144
Plan 5B	473	69.0	60.7	1,149,100	2,429
Plan 5C	676	67.0	61.6	1,694,500	2,507
Plan 7	17	63.0	61.3	20,200	1,191
Plan 8	<u>36</u>	64.7	62.7	<u>36,400</u>	1,011
Total	3,852	72.1	59.8	\$12,221,700	\$3,173
APCD Members					
Plan 1	58	69.7	58.4	\$243,000	\$4,190
Plan 2	<u>18</u>	68.4	60.2	<u>48,800</u>	2,711
Total	76	69.4	58.9	\$291,800	\$3,840
Safety Members					
Plan 1	245	79.8	54.6	\$1,202,900	\$4,910
Plan 2	18	78.9	53.9	46,100	2,559
Plan 3	3	66.7	0.0	9,300	3,092
Plan 4A	305	70.0	56.1	2,491,400	8,168
Plan 4B	119	68.9	55.8	418,800	3,519
Plan 4C	166	62.3	57.2	740,500	4,461
Plan 4D	2	68.0	63.0	8,700	4,338
Plan 6A	294	63.1	53.5	2,093,000	7,119
Plan 6B	147	57.3	54.8	642,900	4,373
Plan 8	<u>4</u>	60.8	60.3	<u>9,100</u>	2,280
Total	1,303	67.9	55.3	\$7,662,700	\$5,881
Total in Pay Status	5,231	71.0	58.8	\$20,176,200	\$3,857

 $^{^{1}}$ For healthy retired members only, excludes disabled members and beneficiaries.



APPENDIX A – MEMBERSHIP INFORMATION

SBCERS Membership – Members in Pay Status as of June 30, 2023

	Count	Monthly Allowances	Average Monthly Benefit
General Members			
Healthy	3,261	\$11,049,700	\$3,388
Disabled	125	336,700	2,694
Beneficiaries	466	835,300	1,792
Total	3,852	\$12,221,700	\$3,173
APCD Members			
Healthy	68	\$271,300	\$3,990
Disabled	0	0	0
Beneficiaries	8	20,500	2,563
Total	76	\$291,800	\$3,840
Safety Members			
Healthy	943	\$6,175,300	\$6,549
Disabled	153	768,100	5,020
Beneficiaries	207	719,300	3,475
Total	1,303	\$7,662,700	\$5,881
Total in Pay Status	5,231	\$20,176,200	\$3,857



APPENDIX A – MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Count and Average Salary as of June 30, 2023 All Members

Count

	Years of Service										
Age	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	Total Count	
Under 25	40	45	0	0	0	0	0	0	0	85	
25-29	80	243	49	0	0	0	0	0	0	372	
30-34	69	281	237	27	0	0	0	0	0	614	
35-39	35	173	257	139	46	0	0	0	0	650	
40-44	28	111	168	116	194	39	1	0	0	657	
45-49	15	68	93	55	134	153	35	1	0	554	
50-54	15	66	62	39	109	168	95	25	0	579	
55-59	14	60	58	37	73	88	77	41	14	462	
60-64	4	28	62	29	44	43	37	26	21	294	
65 & Over	4	9	26	16	25	23	8	6	5	122	
Total Count	304	1,084	1,012	458	625	514	253	99	40	4,389	



APPENDIX A – MEMBERSHIP INFORMATION

Salary

				Y	ears of Ser	vice				Average
Age	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	Salary ¹
Under 25	\$65,523	\$64,308	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$64,880
25-29	64,934	71,446	91,746	0	0	0	0	0	0	72,719
30-34	77,616	78,175	92,404	104,664	0	0	0	0	0	84,769
35-39	73,793	83,085	95,117	100,670	100,764	0	0	0	0	92,354
40-44	82,558	90,530	99,019	100,883	104,417	105,854	71,059	0	0	99,169
45-49	100,349	92,570	104,304	99,491	108,134	112,407	122,109	105,991	0	106,571
50-54	103,324	91,318	93,534	96,572	99,911	112,734	122,000	106,932	0	105,760
55-59	95,844	95,711	110,225	113,975	99,247	103,396	111,511	106,282	108,761	104,989
60-64	126,353	119,331	120,755	116,903	99,556	99,525	102,843	96,995	102,779	108,399
65 & Over	63,165	90,491	124,208	107,627	107,608	110,317	88,236	80,062	109,684	106,399
Average Salary ¹	\$76,383	\$81,979	\$98,897	\$102,815	\$103,341	\$109,303	\$114,752	\$102,415	\$105,736	\$96,475

¹Based on salary data provided in the June 30, 2023 valuation data for FYE 2023.



APPENDIX A – MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Count as of June 30, 2023 General Members

Count

				Ye	ears of Se	rvice				
Age	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	Total Count
Under 25	30	34	0	0	0	0	0	0	0	64
25-29	58	191	27	0	0	0	0	0	0	276
30-34	53	222	151	13	0	0	0	0	0	439
35-39	31	150	187	94	27	0	0	0	0	489
40-44	23	100	141	82	123	28	1	0	0	498
45-49	15	66	82	39	90	89	19	1	0	401
50-54	15	60	58	33	78	116	63	20	0	443
55-59	13	55	49	36	63	77	66	36	14	409
60-64	4	26	60	24	43	42	37	24	21	281
65 & Over	4	8	25	16	24	22	8	6	4	117
Total Count	246	912	780	337	448	374	194	87	39	3,417



APPENDIX A – MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Average Salary as of June 30, 2023 General Members

Salary

				Ye	ars of Ser	vice				Average
Age	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	Salary ¹
Under 25	\$60,754	\$57,101	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$58,814
25-29	60,267	65,382	82,075	0	0	0	0	0	0	65,940
30-34	66,799	72,412	84,070	96,981	0	0	0	0	0	76,472
35-39	73,290	81,153	88,279	92,506	83,725	0	0	0	0	85,704
40-44	83,703	89,084	96,126	91,967	92,615	97,819	71,059	0	0	92,631
45-49	100,349	91,522	103,490	95,425	101,462	93,436	107,980	105,991	0	98,151
50-54	103,324	89,334	89,526	94,785	89,331	102,706	106,058	93,310	0	96,298
55-59	94,014	93,141	106,877	112,775	94,099	97,527	104,037	99,528	108,761	100,371
60-64	126,353	116,330	121,289	109,732	97,951	99,692	102,843	96,045	102,779	107,148
65 & Over	63,165	85,038	119,645	107,627	101,499	108,851	88,236	80,062	89,655	102,749
Average Salary ¹	\$73,541	\$78,744	\$95,073	\$97,218	\$94,482	\$99,091	\$104,030	\$95,870	\$103,581	\$90,364

¹Based on salary data provided in the June 30, 2023 valuation data for FYE 2023.



APPENDIX A – MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Count as of June 30, 2023 Safety Members

Count

				Ye	ears of Sei	rvice				
Age	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	Total Count
Under 25	9	10	0	0	0	0	0	0	0	19
25-29	21	50	20	0	0	0	0	0	0	91
30-34	16	57	82	14	0	0	0	0	0	169
35-39	4	20	68	45	16	0	0	0	0	153
40-44	5	11	26	34	68	11	0	0	0	155
45-49	0	2	10	15	44	64	16	0	0	151
50-54	0	6	4	6	31	52	32	5	0	136
55-59	1	5	8	1	10	10	11	4	0	50
60-64	0	2	2	4	1	1	0	0	0	10
65 & Over	0	1	1	0	1	1	0	0	1	5
Total Count	56	164	221	119	171	139	59	9	1	939



APPENDIX A – MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Average Salary as of June 30, 2023 Safety Members

Salary

				,	Years of Se	rvice				Average
Age	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	Salary ¹
Under 25	\$78,958	\$88,328	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$83,889
25-29	78,428	93,794	103,376	0	0	0	0	0	0	92,354
30-34	113,447	101,553	106,958	111,798	0	0	0	0	0	106,150
35-39	77,693	98,560	113,308	117,725	125,048	0	0	0	0	112,976
40-44	77,290	103,674	114,610	122,385	124,158	126,305	0	0	0	119,354
45-49	0	127,152	107,685	109,929	121,782	138,789	138,888	0	0	128,763
50-54	0	111,157	151,642	106,403	126,531	135,105	153,386	161,418	0	136,583
55-59	119,630	123,989	131,817	157,161	131,681	135,085	156,354	168,257	0	140,237
60-64	0	158,337	104,750	154,836	168,593	92,492	0	0	0	140,660
65 & Over	0	134,123	238,287	0	254,211	142,567	0	0	189,802	191,798
Average Salary ¹	\$89,100	\$100,397	\$111,804	\$118,384	\$125,521	\$135,851	\$150,008	\$164,458	\$189,802	\$118,337

¹Based on salary data provided in the June 30, 2023 valuation data for FYE 2023.



APPENDIX A – MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Count as of June 30, 2023 APCD Members

Count

				Ye	ears of Sei	vice				
Age	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	Total Count
Under 25	1	1	0	0	0	0	0	0	0	2
25-29	1	2	2	0	0	0	0	0	0	5
30-34	0	2	4	0	0	0	0	0	0	6
35-39	0	3	2	0	3	0	0	0	0	8
40-44	0	0	1	0	3	0	0	0	0	4
45-49	0	0	1	1	0	0	0	0	0	2
50-54	0	0	0	0	0	0	0	0	0	0
55-59	0	0	1	0	0	1	0	1	0	3
60-64	0	0	0	1	0	0	0	2	0	3
65 & Over	0	0	0	0	0	0	0	0	0	0
Total Count	2	8	11	2	6	1	0	3	0	33



APPENDIX A – MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Average Salary as of June 30, 2023 APCD Members

Salary

					Years of Se	rvice				Average
Age	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	Salary ¹
Under 25	\$87,684	\$69,139	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$78,412
25-29	52,196	91,862	105,999	0	0	0	0	0	0	89,583
30-34	0	51,608	108,642	0	0	0	0	0	0	89,631
35-39	0	76,530	116,022	0	124,595	0	0	0	0	104,427
40-44	0	0	101,513	0	140,834	0	0	0	0	131,003
45-49	0	0	137,262	101,513	0	0	0	0	0	119,387
50-54	0	0	0	0	0	0	0	0	0	0
55-59	0	0	101,513	0	0	238,414	0	101,513	0	147,146
60-64	0	0	0	137,262	0	0	0	108,400	0	118,021
65 & Over	0	0	0	0	0	0	0	0	0	0
Average Salary ¹	\$69,940	\$73,209	\$110,809	\$119,387	\$132,714	\$238,414	\$0	\$106,105	\$0	\$107,159

¹Based on salary data provided in the June 30, 2023 valuation data for FYE 2023.



APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Retired Members by Age and Retirement Year as of June 30, 2023 All Members

				Bene	fit Effective	Date				Total	Average Monthly
Age	Pre-1985	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-2023	Count	Benefit
Under 35	0	0	0	3	0	0	0	2	2	7	\$894
35-39	0	0	0	0	1	0	1	2	3	7	\$2,011
40-44	0	0	0	0	0	1	0	3	3	7	\$3,077
45-49	0	0	0	0	3	0	4	11	15	33	\$3,372
50-54	0	0	0	2	2	0	9	43	104	160	\$3,510
55-59	0	0	2	2	3	7	24	156	177	371	\$3,729
60-64	0	0	0	6	11	34	170	249	270	740	\$4,216
65-69	0	0	1	14	27	184	275	368	210	1,079	\$4,089
70-74	2	2	2	22	106	233	273	252	56	948	\$4,002
75-79	13	6	15	86	197	269	186	96	44	912	\$4,072
80-84	14	2	45	101	126	104	38	43	27	500	\$3,602
85-89	9	17	37	59	51	30	16	14	19	252	\$2,800
90-94	9	19	33	28	15	7	9	16	12	148	\$2,459
95-99	9	10	14	3	5	1	5	3	3	53	\$2,527
100 & Over	7	3	1	1	2	0	0	0	0	14	\$2,433
Total Count	63	59	150	327	549	870	1,010	1,258	945	5,231	
Avg Monthly Benefit	\$2,469	\$2,595	\$2,695	\$3,221	\$3,606	\$4,003	\$3,916	\$4,035	\$4,145		\$3,857



APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Retired Members by Age and Retirement Year as of June 30, 2023 General Members

				Benef	fit Effective	Date				Total	Average Monthly
Age	Pre-1985	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-2023	Count	Benefit
Under 35	0	0	0	3	0	0	0	0	2	5	\$668
35-39	0	0	0	0	1	0	0	0	2	3	\$869
40-44	0	0	0	0	0	1	0	0	1	2	\$1,008
45-49	0	0	0	0	2	0	2	5	4	13	\$1,600
50-54	0	0	0	1	1	0	4	10	51	67	\$1,610
55-59	0	0	2	1	2	3	8	75	110	201	\$2,180
60-64	0	0	0	5	6	17	88	159	230	505	\$3,302
65-69	0	0	1	8	19	117	179	301	193	818	\$3,417
70-74	1	1	2	17	77	156	241	219	52	766	\$3,555
75-79	1	4	7	60	119	227	162	83	31	694	\$3,428
80-84	2	1	36	53	104	93	34	31	16	370	\$2,857
85-89	3	11	29	51	48	27	11	13	14	207	\$2,566
90-94	9	18	32	26	13	5	8	15	10	136	\$2,422
95-99	9	10	14	3	3	1	5	3	3	51	\$2,558
100 & Over	7	3	1	1	2	0	0	0	0	14	\$2,433
Total Count	32	48	124	229	397	647	742	914	719	3,852	
Avg Monthly Benefit	\$1,788	\$2,343	\$2,207	\$2,199	\$2,640	\$3,169	\$3,325	\$3,457	\$3,546		\$3,173



APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Retired Members by Age and Retirement Year as of June 30, 2023 Safety Members

				Bene	fit Effective	Date				Total	Average Monthly
Age	Pre-1985	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-2023	Count	Benefit
Under 35	0	0	0	0	0	0	0	2	0	2	\$1,457
35-39	0	0	0	0	0	0	1	2	1	4	\$2,868
40-44	0	0	0	0	0	0	0	3	2	5	\$3,904
45-49	0	0	0	0	1	0	2	6	11	20	\$4,525
50-54	0	0	0	1	1	0	5	33	52	92	\$4,904
55-59	0	0	0	1	1	4	15	79	64	164	\$5,674
60-64	0	0	0	1	5	16	75	87	37	221	\$6,347
65-69	0	0	0	6	8	61	90	62	13	240	\$6,433
70-74	1	1	0	5	28	75	27	27	4	168	\$5,921
75-79	12	2	8	26	76	38	18	12	13	205	\$6,235
80-84	12	1	9	48	21	10	4	12	11	128	\$5,764
85-89	6	6	8	8	2	1	5	1	4	41	\$3,930
90-94	0	1	1	2	1	2	1	1	2	11	\$3,143
95-99	0	0	0	0	2	0	0	0	0	2	\$1,733
100 & Over	0	0	0	0	0	0	0	0	0	0	\$0
Total Count	31	11	26	98	146	207	243	327	214	1,303	
Avg Monthly Benefit	\$3,171	\$3,698	\$5,022	\$5,610	\$6,267	\$6,670	\$5,750	\$5,626	\$6,125		\$5,881



APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Retired Members by Age and Retirement Year as of June 30, 2023 APCD Members

				Bene	fit Effective	Date				Total	Average Monthly
Age	Pre-1985	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-2023	Count	Benefit
Under 35	0	0	0	0	0	0	0	0	0	0	\$0
35-39	0	0	0	0	0	0	0	0	0	0	\$0
40-44	0	0	0	0	0	0	0	0	0	0	\$0
45-49	0	0	0	0	0	0	0	0	0	0	\$0
50-54	0	0	0	0	0	0	0	0	1	1	\$2,646
55-59	0	0	0	0	0	0	1	2	3	6	\$2,472
60-64	0	0	0	0	0	1	7	3	3	14	\$3,554
65-69	0	0	0	0	0	6	6	5	4	21	\$3,478
70-74	0	0	0	0	1	2	5	6	0	14	\$5,458
75-79	0	0	0	0	2	4	6	1	0	13	\$4,286
80-84	0	0	0	0	1	1	0	0	0	2	\$2,936
85-89	0	0	0	0	1	2	0	0	1	4	\$3,366
90-94	0	0	0	0	1	0	0	0	0	1	\$63
95-99	0	0	0	0	0	0	0	0	0	0	\$0
100 & Over	0	0	0	0	0	0	0	0	0	0	\$0
Total Count	0	0	0	0	6	16	25	17	12	76	
Avg Monthly Benefit	\$0	\$0	\$0	\$0	\$2,797	\$3,181	\$3,643	\$4,500	\$4,712		\$3,840



APPENDIX A – MEMBERSHIP INFORMATION

Reconciliation of System Membership since Prior Valuation All Members

	Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
June 30, 2022	4,279	1,784	68	217	4,139	651	11,138
New Entrants	589	0	0	0	0	0	589
Rehires	29	(27)	0	0	(2)	0	0
Duty Disabilities	(4)	(1)	0	6	(1)	0	0
Ordinary Disabilities	(1)	0	1	0	0	0	0
Retirements	(186)	(57)	0	0	243	0	0
Retirements from one plan with service in another	0	0	0	0	4	0	4
Vested Terminations	(104)	104	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	(1)	(1)	(1)	(42)	45	0
Non-Vested Terminations and Death without beneficiary	(143)	139	(2)	(10)	(71)	0	(87)
Transfers	0	0	0	0	0	0	0
Beneficiary Deaths	0	0	0	0	0	(30)	(30)
Domestic Relations Orders	0	(2)	0	0	0	14	12
Withdrawals Paid	(70)	(71)	0	0	0	0	(141)
Data Corrections	0	(1)	0	0	2	2	3
Benefit Expired	0	0	0	0	0	(1)	(1)
June 30, 2023	4,389	1,867	66	212	4,272	681	11,487



APPENDIX A – MEMBERSHIP INFORMATION

Reconciliation of System Membership since Prior Valuation General Members

	Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
June 30, 2022	3,321	1,504	58	74	3,162	444	8,563
New Entrants	501	0	0	0	0	0	501
Rehires	25	(24)	0	0	(1)	0	0
Duty Disabilities	(1)	(1)	0	3	(1)	0	0
Ordinary Disabilities	0	0	0	0	0	0	0
Retirements	(148)	(44)	0	0	192	0	0
Retirements from one plan with service in another	0	0	0	0	4	0	4
Vested Terminations	(93)	93	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	(1)	(1)	0	(33)	35	0
Non-Vested Terminations and Death without beneficiary	(122)	118	(2)	(7)	(64)	0	(77)
Transfers	(7)	0	0	0	0	0	(7)
Beneficiary Deaths	0	0	0	0	0	(24)	(24)
Domestic Relations Orders	0	(1)	0	0	0	9	8
Withdrawals Paid	(59)	(55)	0	0	0	0	(114)
Data Corrections	0	2	0	0	2	2	6
Benefit Expired	0	0	0	0	0	0	0
June 30, 2023	3,417	1,591	55	70	3,261	466	8,860



APPENDIX A – MEMBERSHIP INFORMATION

Reconciliation of System Membership since Prior Valuation Safety Members

	Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
June 30, 2022	925	260	10	143	912	199	2,449
New Entrants	83	0	0	0	0	0	83
Rehires	4	(3)	0	0	(1)	0	0
Duty Disabilities	(3)	0	0	3	0	0	0
Ordinary Disabilities	(1)	0	1	0	0	0	0
Retirements	(37)	(11)	0	0	48	0	0
Retirements from one plan with service in another	0	0	0	0	0	0	0
Vested Terminations	(11)	11	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	(1)	(9)	10	0
Non-Vested Terminations and Death without beneficiary	(20)	20	0	(3)	(7)	0	(10)
Transfers	9	0	0	0	0	0	9
Beneficiary Deaths	0	0	0	0	0	(6)	(6)
Domestic Relations Orders	0	(1)	0	0	0	5	4
Withdrawals Paid	(10)	(16)	0	0	0	0	(26)
Data Corrections	0	(3)	0	0	0	0	(3)
Benefit Expired	0	0	0	0	0	(1)	(1)
June 30, 2023	939	257	11	142	943	207	2,499



APPENDIX A – MEMBERSHIP INFORMATION

Reconciliation of System Membership since Prior Valuation APCD Members

	Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
June 30, 2022	33	20	0	0	65	8	126
New Entrants	5	0	0	0	0	0	5
Rehires	0	0	0	0	0	0	0
Duty Disabilities	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0
Retirements	(1)	(2)	0	0	3	0	0
Retirements from one plan with service in another	0	0	0	0	0	0	0
Vested Terminations	0	0	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	0	0
Non-Vested Terminations and Death without beneficiary	(1)	1	0	0	0	0	0
Transfers	(2)	0	0	0	0	0	(2)
Beneficiary Deaths	0	0	0	0	0	0	0
Domestic Relations Orders	0	0	0	0	0	0	0
Withdrawals Paid	(1)	0	0	0	0	0	(1)
Data Corrections	0	0	0	0	0	0	0
Benefit Expired	0	0	0	0	0	0	0
June 30, 2023	33	19	0	0	68	8	128



APPENDIX B – MEMBER CONTRIBUTION RATES

Plan/Tier	Code Section	Member Contribution Provides Average Annuity	FAS Period
General 5A	31621.5	1/200th of Final Average Salary (FAS) at age 60	1 year
General 5B	31621.2	1/100th of Final Average Salary (FAS) at age 60	1 year
General 5C	31621.5	1/200th of Final Average Salary (FAS) at age 60	3 year
General 2	NA	NA	3 year
General 7	31621.4	1/240th of Final Average Salary (FAS) at age 60	3 year
APCD 1	31621.6 & 31581.1	1/2 x 1/100th of Final Average Salary (FAS) at age 55	1 year
APCD 2	31621.6	1/100th of Final Average Salary (FAS) at age 55	1 year
Safety 4A & 6A		1/2 x 3/200th of Final Average Salary (FAS) at age 55	1 year
Safety 4B		3/200th of Final Average Salary (FAS) at age 55	1 year
Safety 4C & 6B		1/2 x 3/200th of Final Average Salary (FAS) at age 55	3 year



APPENDIX B – MEMBER CONTRIBUTION RATES

		Gen	eral		AP	CD		Safety	
Entry Age	5A	5B	5C	7	1	2	4A & 6A	4B	4C & 6B
16	3.02%	6.03%	2.92%	2.43%	3.54%	7.07%	5.88%	11.75%	5.65%
17	3.02%	6.03%	2.92%	2.43%	3.54%	7.07%	5.88%	11.75%	5.65%
18	3.02%	6.03%	2.92%	2.43%	3.54%	7.07%	5.88%	11.75%	5.65%
19	3.02%	6.03%	2.92%	2.43%	3.54%	7.07%	5.88%	11.75%	5.65%
20	3.02%	6.03%	2.92%	2.43%	3.54%	7.07%	5.88%	11.75%	5.65%
21	3.08%	6.16%	2.98%	2.49%	3.61%	7.23%	5.98%	11.95%	5.75%
22	3.15%	6.30%	3.05%	2.54%	3.69%	7.38%	6.08%	12.15%	5.84%
23	3.22%	6.43%	3.11%	2.59%	3.77%	7.54%	6.18%	12.36%	5.94%
24	3.29%	6.57%	3.18%	2.65%	3.85%	7.70%	6.28%	12.56%	6.04%
25	3.36%	6.71%	3.25%	2.71%	3.93%	7.86%	6.39%	12.77%	6.14%
26	3.43%	6.86%	3.32%	2.77%	4.02%	8.03%	6.49%	12.99%	6.24%
27	3.50%	7.01%	3.39%	2.82%	4.10%	8.20%	6.60%	13.20%	6.35%
28	3.58%	7.16%	3.46%	2.88%	4.19%	8.38%	6.71%	13.42%	6.45%
29	3.65%	7.31%	3.54%	2.95%	4.28%	8.55%	6.82%	13.65%	6.56%
30	3.73%	7.46%	3.61%	3.01%	4.37%	8.74%	6.94%	13.87%	6.67%
31	3.81%	7.62%	3.69%	3.07%	4.46%	8.92%	7.05%	14.10%	6.78%
32	3.89%	7.78%	3.77%	3.14%	4.56%	9.11%	7.17%	14.34%	6.90%
33	3.97%	7.95%	3.85%	3.21%	4.65%	9.31%	7.29%	14.58%	7.01%
34	4.06%	8.12%	3.93%	3.27%	4.75%	9.50%	7.41%	14.82%	7.13%
35	4.15%	8.29%	4.01%	3.34%	4.85%	9.70%	7.54%	15.07%	7.25%
36	4.23%	8.47%	4.10%	3.41%	4.95%	9.91%	7.66%	15.32%	7.37%
37	4.32%	8.65%	4.18%	3.49%	5.06%	10.11%	7.79%	15.58%	7.49%
38	4.42%	8.83%	4.27%	3.56%	5.16%	10.32%	7.92%	15.85%	7.62%
39	4.51%	9.02%	4.36%	3.63%	5.27%	10.54%	8.06%	16.12%	7.75%
40	4.60%	9.21%	4.45%	3.71%	5.38%	10.75%	8.20%	16.40%	7.89%
41	4.70%	9.40%	4.54%	3.79%	5.48%	10.96%	8.35%	16.69%	8.03%
42	4.80%	9.60%	4.64%	3.86%	5.59%	11.17%	8.50%	16.99%	8.17%
43	4.90%	9.80%	4.73%	3.94%	5.69%	11.38%	8.65%	17.30%	8.32%
44	5.00%	10.00%	4.83%	4.02%	5.79%	11.58%	8.82%	17.63%	8.47%
45	5.10%	10.20%	4.92%	4.10%	5.89%	11.78%	8.98%	17.96%	8.62%
46	5.20%	10.40%	5.01%	4.18%	5.99%	11.99%	9.15%	18.30%	8.77%
47	5.30%	10.60%	5.10%	4.25%	6.10%	12.19%	9.32%	18.65%	8.90%
48	5.40%	10.80%	5.19%	4.33%	6.20%	12.39%	9.49%	18.98%	9.02%
49 50	5.50%	10.99%	5.28%	4.40%	6.29%	12.57%	9.64%	19.27%	9.12%
	5.59%	11.18%	5.37%	4.47%	6.36%	12.72%	9.76%	19.53%	9.14%
51 52	5.69% 5.79%	11.38%	5.45%	4.54%	6.41% 6.45%	12.83%	9.85% 9.85%	19.71%	9.14%
		11.57%	5.53%	4.61%		12.90%		19.71%	9.14%
53 54	5.88%	11.76%	5.61%	4.67%	6.45%	12.91%	9.85%	19.71%	9.34%
54 55	5.97% 6.04%	11.93% 12.07%	5.66% 5.70%	4.72% 4.75%	6.45% 6.45%	12.91% 12.91%	9.85% 9.85%	19.71% 19.71%	9.65% 9.65%
56	6.04%	12.07%	5.70% 5.72%	4.73% 4.77%	6.45%	12.91%	9.85% 9.85%	19.71%	9.65% 9.65%
57	6.09%	12.17%	5.72%	4.77%	6.45%	12.91%	9.85% 9.85%	19.71%	9.65% 9.65%
58	6.12%	12.24%	5.90%	4.77%	6.45%	12.91%	9.85%	19.71%	9.65% 9.65%
58 59	6.12%	12.25%	5.90% 6.10%	5.08%	6.45%	12.91%	9.85% 9.85%	19.71%	9.65% 9.65%
60	6.12%	12.25%	6.10%	5.08%	6.45%	12.91%	9.85%	19.71%	9.65% 9.65%
00	0.1270	12.2370	0.10%	3.08%	0.43%	12.9170	9.03%	17./170	9.03%

Assumptions:

Interest: 7.00%

Salary: 2022 Valuation Scale (Service based, includes wage inflation at 3.00%)

Unisex Public General 2010 Above-Median Income and Public Safety 2010 Above-Median Income Healthy Annuitant Mortality: Mortality Tables projected to 2047 using Scale 80% of MP-2020 (blended 30% Male / 70% Female for General/APCD,

and blended 80% Male / 20% Female for Safety)

Administrative Rates have been loaded by 3.3% to account for expected administrative expenses allocated to the members

expenses:



APPENDIX B – MEMBER CONTRIBUTION RATES

PEPRA Member Contribution Rates effective as of the June 30, 2023 Valuation For the Fiscal Year July 1, 2024 through June 30, 2025

		PEPRA Rates		
2 0/ COT 1	General	X A P.C.O.		A D.C.D.
2% COLA	3% COLA	LAFCO	Safety	APCD
8.48%	9.20%	9.20%	15.58%	7.00%
Assumptions:				
Interest:	7.00%			
Salary:	2022 Scale ((Service based, in	cludes wage inflati	on at 3.00%)
Mortality:	normal cost. the actuaria Income and Tables with	Thus, the mortal al valuation (Pu Public Safety 20	ity rates are the sar blic General 201 10 Above-Median rtality improvement	50% of the actual me as those used in 10 Above-Median Income Mortality nts projected from
Administrative expenses:		•	3.30% to account ed to the members.	t for the expected



APPENDIX B – MEMBER CONTRIBUTION RATES

Member Cost-Sharing/Pick-Up Contributions by Bargaining Group Estimated Rate During July 1, 2024 to June 30, 2025 (Non-PEPRA Plans Only)

Bargaining Unit	Union	Employer Contribution Offset ¹	Additional Member Contribution ¹
10, 11	Union of American Physicians & Dentists	2.48%	2.50%
12, 13	Fire Fighters Local 2046	5.97%	6.00%
14, 15	Deputy Sheriffs' Association - Safety	5.97%	6.00%
14, 15	Deputy Sheriffs' Association - non-Safety	2.48%	2.50%
17	Deputy District Attorneys	2.48%	2.50%
18, 19	Probation Peace Officers	5.97%	6.00%
20	Deputy Public Defenders	2.48%	2.50%
21, 22	SEIU Local 721	2.48%	2.50%
23, 24, 25, 26, 27	SEIU Local 620	2.48%	2.50%
28, 29	Engineers & Technicians	2.48%	2.50%
30	Civil Attorneys Association	2.48%	2.50%
32	Confidential	2.48%	2.50%
35, 40, 41, 42, 43	Unrepresented Managers (including CEO)	2.47%	2.49%
36	Unrepresented Confidential Attorneys	2.48%	2.50%
38	Board of Supervisors	2.48%	2.50%
44	Sheriff Managers Association	5.97%	6.00%

¹ Contribution rates shown are the estimated rates to be made during the Plan Year, based on the actual timing and amount of cost-sharing, and not the effective rate at the beginning of the Plan Year.



APPENDIX B – MEMBER CONTRIBUTION RATES

All General Bargaining Units Except for Unrepresented Managers (incl CEO) (35,40,41,42,43)

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Lilletti (J -	,	

	Effective July 1, 2025											
		Plan 5A			Plan 5B			Plan 5C			Plan 7	
Entry Age	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total
16	3.02%	2.50%	5.52%	6.03%	2.50%	8.53%	2.92%	2.50%	5.42%	2.43%	2.50%	4.93%
17	3.02%	2.50%	5.52%	6.03%	2.50%	8.53%	2.92%	2.50%	5.42%	2.43%	2.50%	4.93%
18	3.02%	2.50%	5.52%	6.03%	2.50%	8.53%	2.92%	2.50%	5.42%	2.43%	2.50%	4.93%
19	3.02%	2.50%	5.52%	6.03%	2.50%	8.53%	2.92%	2.50%	5.42%	2.43%	2.50%	4.93%
20	3.02%	2.50%	5.52%	6.03%	2.50%	8.53%	2.92%	2.50%	5.42%	2.43%	2.50%	4.93%
21	3.08%	2.50%	5.58%	6.16%	2.50%	8.66%	2.98%	2.50%	5.48%	2.49%	2.50%	4.99%
22	3.15%	2.50%	5.65%	6.30%	2.50%	8.80%	3.05%	2.50%	5.55%	2.54%	2.50%	5.04%
23	3.22%	2.50%	5.72%	6.43%	2.50%	8.93%	3.11%	2.50%	5.61%	2.59%	2.50%	5.09%
24	3.29%	2.50%	5.79%	6.57%	2.50%	9.07%	3.18%	2.50%	5.68%	2.65%	2.50%	5.15%
25	3.36%	2.50%	5.86%	6.71%	2.50%	9.21%	3.25%	2.50%	5.75%	2.71%	2.50%	5.21%
26	3.43%	2.50%	5.93%	6.86%	2.50%	9.36%	3.32%	2.50%	5.82%	2.77%	2.50%	5.27%
27	3.50%	2.50%	6.00%	7.01%	2.50%	9.51%	3.39%	2.50%	5.89%	2.82%	2.50%	5.32%
28	3.58%	2.50%	6.08%	7.16%	2.50%	9.66%	3.46%	2.50%	5.96%	2.88%	2.50%	5.38%
29	3.65%	2.50%	6.15%	7.31%	2.50%	9.81%	3.54%	2.50%	6.04%	2.95%	2.50%	5.45%
30	3.73%	2.50%	6.23%	7.46%	2.50%	9.96%	3.61%	2.50%	6.11%	3.01%	2.50%	5.51%
31	3.81%	2.50%	6.31%	7.62%	2.50%	10.12%	3.69%	2.50%	6.19%	3.07%	2.50%	5.57%
32	3.89%	2.50%	6.39%	7.78%	2.50%	10.28%	3.77%	2.50%	6.27%	3.14%	2.50%	5.64%
33	3.97%	2.50%	6.47%	7.95%	2.50%	10.45%	3.85%	2.50%	6.35%	3.21%	2.50%	5.71%
34	4.06%	2.50%	6.56%	8.12%	2.50%	10.62%	3.93%	2.50%	6.43%	3.27%	2.50%	5.77%
35	4.15%	2.50%	6.65%	8.29%	2.50%	10.79%	4.01%	2.50%	6.51%	3.34%	2.50%	5.84%
36	4.23%	2.50%	6.73%	8.47%	2.50%	10.97%	4.10%	2.50%	6.60%	3.41%	2.50%	5.91%
37	4.32%	2.50%	6.82%	8.65%	2.50%	11.15%	4.18%	2.50%	6.68%	3.49%	2.50%	5.99%
38	4.42%	2.50%	6.92%	8.83%	2.50%	11.33%	4.27%	2.50%	6.77%	3.56%	2.50%	6.06%
39	4.51%	2.50%	7.01%	9.02%	2.50%	11.52%	4.36%	2.50%	6.86%	3.63%	2.50%	6.13%
40	4.60%	2.50%	7.10%	9.21%	2.50%	11.71%	4.45%	2.50%	6.95%	3.71%	2.50%	6.21%
41	4.70%	2.50%	7.20%	9.40%	2.50%	11.7176	4.54%	2.50%	7.04%	3.79%	2.50%	6.29%
42	4.80%	2.50%	7.30%	9.60%	2.50%	12.10%	4.64%	2.50%	7.14%	3.86%	2.50%	6.36%
43	4.90%	2.50%	7.40%	9.80%	2.50%	12.10%	4.73%	2.50%	7.23%	3.94%	2.50%	6.44%
44	5.00%	2.50%	7.50%	10.00%	2.50%	12.50%	4.83%	2.50%	7.33%	4.02%	2.50%	6.52%
45	5.10%	2.50%	7.60%	10.00%	2.50%	12.70%	4.92%	2.50%	7.42%	4.10%	2.50%	6.60%
46	5.20%	2.50%	7.70%	10.40%	2.50%	12.70%	5.01%	2.50%	7.51%	4.10%	2.50%	6.68%
47	5.30%	2.50%	7.80%	10.40%	2.50%	13.10%	5.10%	2.50%	7.60%	4.25%	2.50%	6.75%
48	5.40%	2.50%	7.90%	10.80%	2.50%	13.30%	5.19%	2.50%	7.69%	4.33%	2.50%	6.83%
49	5.50%	2.50%	8.00%	10.80%	2.50%	13.49%	5.28%	2.50%	7.78%	4.40%	2.50%	6.90%
50	5.59%	2.50%	8.09%	11.18%	2.50%	13.49%	5.37%	2.50%	7.87%	4.47%	2.50%	6.97%
51	5.69%	2.50%	8.19%	11.18%	2.50%	13.88%	5.45%	2.50%	7.95%	4.47%	2.50%	7.04%
52	5.79%	2.50%	8.29%	11.57%	2.50%	14.07%		2.50%	8.03%	4.54%	2.50%	7.04%
53	5.88%	2.50%	8.29%	11.76%	2.50%	14.07%	5.53%	2.50%		4.61%	2.50%	7.11% 7.17%
53 54	5.88%	2.50%	8.38% 8.47%	11.76%			5.61%		8.11% 8.16%			7.17% 7.22%
54 55	5.97% 6.04%		8.47% 8.54%		2.50%	14.43%	5.66%	2.50%		4.72%	2.50%	
	l	2.50%		12.07%	2.50%	14.57%	5.70%	2.50%	8.20%	4.75%	2.50%	7.25%
56 57	6.09%	2.50%	8.59%	12.17%	2.50%	14.67%	5.72%	2.50%	8.22%	4.77%	2.50%	7.27%
57 59	6.12%	2.50%	8.62%	12.24%	2.50%	14.74%	5.72%	2.50%	8.22%	4.77%	2.50%	7.27%
58	6.12%	2.50%	8.62%	12.25%	2.50%	14.75%	5.90%	2.50%	8.40%	4.92%	2.50%	7.42%
59	6.12%	2.50%	8.62%	12.25%	2.50%	14.75%	6.10%	2.50%	8.60%	5.08%	2.50%	7.58%
60	6.12%	2.50%	8.62%	12.25%	2.50%	14.75%	6.10%	2.50%	8.60%	5.08%	2.50%	7.58%

Members do not pay COLA contributions

Assumptions:

Interest: 7.00%

Salary: 2022 Valuation Scale (Service based, includes wage inflation at 3.00%)

Unisex Mortality: Public General 2010 Above-Median Income - PUBG-2010(A) - Retiree Mortality Table, projected to 2047 using 80% of Scale MP-2020

(blended 30% Male / 70% Female)

Administrative expenses: Rates have been loaded by 3.30% to account for expected administrative expenses allocated to the members.



APPENDIX B – MEMBER CONTRIBUTION RATES

					Effectiv	e July 1, 2	023					
		Plan 5A			Plan 5B		Plan 5C				Plan 7	
Entry Age	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total
16	3.02%	2.49%	5.51%	6.03%	2.49%	8.52%	2.92%	2.49%	5.41%	2.43%	2.49%	4.92%
17	3.02%	2.49%	5.51%	6.03%	2.49%	8.52%	2.92%	2.49%	5.41%	2.43%	2.49%	4.929
18	3.02%	2.49%	5.51%	6.03%	2.49%	8.52%	2.92%	2.49%	5.41%	2.43%	2.49%	4.929
19	3.02%	2.49%	5.51%	6.03%	2.49%	8.52%	2.92%	2.49%	5.41%	2.43%	2.49%	4.929
20	3.02%	2.49%	5.51%	6.03%	2.49%	8.52%	2.92%	2.49%	5.41%	2.43%	2.49%	4.929
21	3.08%	2.49%	5.57%	6.16%	2.49%	8.65%	2.98%	2.49%	5.47%	2.49%	2.49%	4.989
22	3.15%	2.49%	5.64%	6.30%	2.49%	8.79%	3.05%	2.49%	5.54%	2.54%	2.49%	5.039
23	3.22%	2.49%	5.71%	6.43%	2.49%	8.92%	3.11%	2.49%	5.60%	2.59%	2.49%	5.089
24	3.29%	2.49%	5.78%	6.57%	2.49%	9.06%	3.18%	2.49%	5.67%	2.65%	2.49%	5.14
25	3.36%	2.49%	5.85%	6.71%	2.49%	9.20%	3.25%	2.49%	5.74%	2.71%	2.49%	5.209
26	3.43%	2.49%	5.92%	6.86%	2.49%	9.35%	3.32%	2.49%	5.81%	2.77%	2.49%	5.269
27	3.50%	2.49%	5.99%	7.01%	2.49%	9.50%	3.39%	2.49%	5.88%	2.82%	2.49%	5.319
28	3.58%	2.49%	6.07%	7.16%	2.49%	9.65%	3.46%	2.49%	5.95%	2.88%	2.49%	5.37
29	3.65%	2.49%	6.14%	7.31%	2.49%	9.80%	3.54%	2.49%	6.03%	2.95%	2.49%	5.44
30	3.73%	2.49%	6.22%	7.46%	2.49%	9.95%	3.61%	2.49%	6.10%	3.01%	2.49%	5.50
31	3.81%	2.49%	6.30%	7.62%	2.49%	10.11%	3.69%	2.49%	6.18%	3.07%	2.49%	5.56
32	3.89%	2.49%	6.38%	7.78%	2.49%	10.27%	3.77%	2.49%	6.26%	3.14%	2.49%	5.63
33	3.97%	2.49%	6.46%	7.95%	2.49%	10.44%	3.85%	2.49%	6.34%	3.21%	2.49%	5.70
34	4.06%	2.49%	6.55%	8.12%	2.49%	10.61%	3.93%	2.49%	6.42%	3.27%	2.49%	5.76
35	4.15%	2.49%	6.64%	8.29%	2.49%	10.78%	4.01%	2.49%	6.50%	3.34%	2.49%	5.83
36	4.23%	2.49%	6.72%	8.47%	2.49%	10.96%	4.10%	2.49%	6.59%	3.41%	2.49%	5.90
37	4.32%	2.49%	6.81%	8.65%	2.49%	11.14%	4.18%	2.49%	6.67%	3.49%	2.49%	5.98
38	4.42%	2.49%	6.91%	8.83%	2.49%	11.32%	4.27%	2.49%	6.76%	3.56%	2.49%	6.05
39	4.51%	2.49%	7.00%	9.02%	2.49%	11.51%	4.36%	2.49%	6.85%	3.63%	2.49%	6.129
40	4.60%	2.49%	7.09%	9.21%	2.49%	11.70%	4.45%	2.49%	6.94%	3.71%	2.49%	6.20
41	4.70%	2.49%	7.19%	9.40%	2.49%	11.89%	4.54%	2.49%	7.03%	3.79%	2.49%	6.28
42	4.80%	2.49%	7.29%	9.60%	2.49%	12.09%	4.64%	2.49%	7.13%	3.86%	2.49%	6.35
43	4.90%	2.49%	7.39%	9.80%	2.49%	12.29%	4.73%	2.49%	7.22%	3.94%	2.49%	6.43
44	5.00%	2.49%	7.49%	10.00%	2.49%	12.49%	4.83%	2.49%	7.32%	4.02%	2.49%	6.51
45	5.10%	2.49%	7.59%	10.20%	2.49%	12.69%	4.92%	2.49%	7.41%	4.10%	2.49%	6.599
46	5.20%	2.49%	7.69%	10.40%	2.49%	12.89%	5.01%	2.49%	7.50%	4.18%	2.49%	6.67
47	5.30%	2.49%	7.79%	10.60%	2.49%	13.09%	5.10%	2.49%	7.59%	4.25%	2.49%	6.749
48	5.40%	2.49%	7.89%	10.80%	2.49%	13.29%	5.19%	2.49%	7.68%	4.33%	2.49%	6.829
49	5.50%	2.49%	7.99%	10.99%	2.49%	13.48%	5.28%	2.49%	7.77%	4.40%	2.49%	6.89
50	5.59%	2.49%	8.08%	11.18%	2.49%	13.67%	5.37%	2.49%	7.86%	4.47%	2.49%	6.96
51	5.69%	2.49%	8.18%	11.38%	2.49%	13.87%	5.45%	2.49%	7.94%	4.54%	2.49%	7.039
52	5.79%	2.49%	8.28%	11.57%	2.49%	14.06%	5.53%	2.49%	8.02%	4.61%	2.49%	7.10
53	5.88%	2.49%	8.37%	11.76%	2.49%	14.25%	5.61%	2.49%	8.10%	4.67%	2.49%	7.169
54	5.97%	2.49%	8.46%	11.93%	2.49%	14.42%	5.66%	2.49%	8.15%	4.72%	2.49%	7.219
55	6.04%	2.49%	8.53%	12.07%	2.49%	14.56%	5.70%	2.49%	8.19%	4.75%	2.49%	7.24
56	6.09%	2.49%	8.58%	12.17%	2.49%	14.66%	5.72%	2.49%	8.21%	4.77%	2.49%	7.26
57	6.12%	2.49%	8.61%	12.24%	2.49%	14.73%	5.72%	2.49%	8.21%	4.77%	2.49%	7.26
58	6.12%	2.49%	8.61%	12.25%	2.49%	14.74%	5.90%	2.49%	8.39%	4.92%	2.49%	7.419
59	6.12%	2.49%	8.61%	12.25%	2.49%	14.74%	6.10%	2.49%	8.59%	5.08%	2.49%	7.579
60	6.12%	2.49%	8.61%	12.25%	2.49%	14.74%	6.10%	2.49%	8.59%	5.08%	2.49%	7.57

Members do not pay COLA contributions

Assumptions:

Interest: 7.00%

Salary: 2022 Valuation Scale (Service based, includes wage inflation at 3.00%)

Unisex Mortality: Public General 2010 Above-Median Income - PUBG-2010(A) - Retiree Mortality Table, projected to 2047 using 80% of Scale MP-2020

(blended 30% Male / 70% Female)

Administrative expenses: Rates have been loaded by 3.30% to account for expected administrative expenses allocated to the members.



APPENDIX B – MEMBER CONTRIBUTION RATES

Fire Fighters Local 2046 (12,13), Deputy Sheriffs' Association - Safety (14,15) Probation Peace Officers (18,19), Sheriffs Managers Association (44)

Effective July 1, 2023

Safe CostShari		Plan 4A & 6A			Plan 4B			Plan 4C & 6B	
Entry Age	Basic	Cost Sharing	Total	Basic	Cost Sharing	Total	Basic	Cost Sharing	Total
16	5.88%	6.00%	11.88%	11.75%	6.00%	17.75%	5.65%	6.00%	11.65%
17	5.88%	6.00%	11.88%	11.75%	6.00%	17.75%	5.65%	6.00%	11.65%
18	5.88%	6.00%	11.88%	11.75%	6.00%	17.75%	5.65%	6.00%	11.65%
19	5.88%	6.00%	11.88%	11.75%	6.00%	17.75%	5.65%	6.00%	11.65%
20	5.88%	6.00%	11.88%	11.75%	6.00%	17.75%	5.65%	6.00%	11.65%
21	5.98%	6.00%	11.98%	11.95%	6.00%	17.95%	5.75%	6.00%	11.75%
22	6.08%	6.00%	12.08%	12.15%	6.00%	18.15%	5.84%	6.00%	11.84%
23	6.18%	6.00%	12.18%	12.36%	6.00%	18.36%	5.94%	6.00%	11.94%
24	6.28%	6.00%	12.28%	12.56%	6.00%	18.56%	6.04%	6.00%	12.04%
25 26	6.39%	6.00%	12.39%	12.77%	6.00%	18.77%	6.14%	6.00%	12.14%
26	6.49%	6.00%	12.49%	12.99%	6.00%	18.99%	6.24%	6.00%	12.24%
27 28	6.60%	6.00%	12.60%	13.20%	6.00%	19.20%	6.35%	6.00%	12.35%
	6.71%	6.00%	12.71%	13.42%	6.00%	19.42%	6.45%	6.00%	12.45%
29 30	6.82% 6.94%	6.00% 6.00%	12.82%	13.65% 13.87%	6.00% 6.00%	19.65%	6.56% 6.67%	6.00% 6.00%	12.56% 12.67%
30 31	7.05%	6.00%	12.94% 13.05%	13.87%	6.00%	19.87% 20.10%	6.78%	6.00%	12.67%
32 33	7.17% 7.29%	6.00%	13.17%	14.34% 14.58%	6.00%	20.34%	6.90%	6.00%	12.90%
33 34	7.41%	6.00% 6.00%	13.29% 13.41%	14.38%	6.00% 6.00%	20.58% 20.82%	7.01% 7.13%	6.00% 6.00%	13.01% 13.13%
34 35	7.54%	6.00%	13.41%	14.82%	6.00%	20.82%	7.15%	6.00%	13.15%
35 36	7.66%	6.00%	13.66%	15.32%	6.00%	21.07%	7.23%	6.00%	13.25%
36 37	7.79%	6.00%	13.79%	15.52%	6.00%	21.52%	7.49%	6.00%	13.49%
38	7.92%	6.00%	13.79%	15.85%	6.00%	21.85%	7.49%	6.00%	13.49%
39	8.06%	6.00%	14.06%	16.12%	6.00%	22.12%	7.75%	6.00%	13.75%
40	8.20%	6.00%	14.20%	16.1276	6.00%	22.40%	7.89%	6.00%	13.75%
41	8.35%	6.00%	14.35%	16.69%	6.00%	22.69%	8.03%	6.00%	14.03%
42	8.50%	6.00%	14.50%	16.99%	6.00%	22.99%	8.17%	6.00%	14.17%
43	8.65%	6.00%	14.65%	17.30%	6.00%	23.30%	8.32%	6.00%	14.32%
44	8.82%	6.00%	14.82%	17.63%	6.00%	23.63%	8.47%	6.00%	14.47%
45	8.98%	6.00%	14.98%	17.96%	6.00%	23.96%	8.62%	6.00%	14.62%
46	9.15%	6.00%	15.15%	18.30%	6.00%	24.30%	8.77%	6.00%	14.77%
47	9.32%	6.00%	15.32%	18.65%	6.00%	24.65%	8.90%	6.00%	14.90%
48	9.49%	6.00%	15.49%	18.98%	6.00%	24.98%	9.02%	6.00%	15.02%
49	9.64%	6.00%	15.64%	19.27%	6.00%	25.27%	9.12%	6.00%	15.12%
50	9.76%	6.00%	15.76%	19.53%	6.00%	25.53%	9.14%	6.00%	15.14%
51	9.85%	6.00%	15.85%	19.71%	6.00%	25.71%	9.14%	6.00%	15.14%
52	9.85%	6.00%	15.85%	19.71%	6.00%	25.71%	9.14%	6.00%	15.14%
53	9.85%	6.00%	15.85%	19.71%	6.00%	25.71%	9.34%	6.00%	15.34%
54	9.85%	6.00%	15.85%	19.71%	6.00%	25.71%	9.65%	6.00%	15.65%
55	9.85%	6.00%	15.85%	19.71%	6.00%	25.71%	9.65%	6.00%	15.65%
56	9.85%	6.00%	15.85%	19.71%	6.00%	25.71%	9.65%	6.00%	15.65%
57	9.85%	6.00%	15.85%	19.71%	6.00%	25.71%	9.65%	6.00%	15.65%
58	9.85%	6.00%	15.85%	19.71%	6.00%	25.71%	9.65%	6.00%	15.65%
59	9.85%	6.00%	15.85%	19.71%	6.00%	25.71%	9.65%	6.00%	15.65%
60	9.85%	6.00%	15.85%	19.71%	6.00%	25.71%	9.65%	6.00%	15.65%

Members do not pay COLA contributions

Assumptions:

Interest: 7.00%

Salary: 2022 Valuation Scale (Service based, includes wage inflation at 3.00%)

Unisex Public Safety 2010 Above-Median Income – PUBS-2010(A) – Retiree Mortality Table, projected to 2047 using 80% of

Mortality: Scale MP-2020 (blended 80% Male / 20% Female)

Administrative Rates have been loaded by 3.30% to account for expected administrative expenses allocated to the members.

expeneses:



APPENDIX B – MEMBER CONTRIBUTION RATES

Safety Unrepresented Managers (35,40,41,42,43) Effective July 1, 2023 Plan 4A & 6A Plan 4B Plan 4C & 6B **Entry Age Cost Sharing** Basic **Cost Sharing** Basic **Cost Sharing** Basic **Total** Total Total 8.37% 11.75% 14.24% 8.14% 16 5.88% 2.49% 2.49% 5.65% 2.49% 2.49% 17 5.88% 2.49% 8.37% 11.75% 14.24% 5.65% 2.49% 8.14% 18 5.88% 2.49% 8.37% 11.75% 2.49% 14.24% 5.65% 2.49% 8.14% 19 5.88% 2.49% 8.37% 11.75% 2.49% 14.24% 5.65% 2.49% 8.14% 20 5.88% 2.49% 8.37% 11.75% 2.49% 14.24% 5.65% 2.49% 8.14% 21 5.98% 2.49% 8.47% 11.95% 2.49% 14.44% 5.75% 2.49% 8.24% 22 6.08% 2.49% 8.57% 12.15% 2.49% 14.64% 5.84% 2.49% 8.33% 23 6.18% 2.49% 8.67% 12.36% 2.49% 14.85% 5.94% 2.49% 8.43% 24 6.28% 2.49% 8.77% 12.56% 2.49% 15.05% 6.04% 2.49% 8.53% 25 6.39% 2.49% 12.77% 2.49% 15.26% 6.14% 2.49% 8.88% 8.63% 26 6.49% 2.49% 8.98% 12.99% 2.49% 15.48% 6.24% 2.49% 8.73% 27 6.60% 2.49% 9.09% 13.20% 2.49% 15.69% 6.35% 2.49% 8.84% 28 6.71% 2.49% 9.20% 13.42% 2.49% 15.91% 6.45% 2.49% 8.94% 29 6.82% 2.49% 9.31% 13.65% 2.49% 16.14% 6.56% 2.49% 9.05% 30 6.94% 2.49% 9.43% 13.87% 2.49% 16.36% 6.67% 2.49% 9.16% 31 7.05% 2.49% 9.54% 14.10% 2.49% 16.59% 6.78% 2.49% 9.27% 32 7.17% 2.49% 9.66% 14.34% 2.49% 16.83% 6.90% 2.49% 9.39% 33 7.29% 2.49% 9.78% 14.58% 2.49% 17.07% 7.01% 2.49% 9.50% 34 7.41% 2.49% 9.90% 14.82% 2.49% 17.31% 7.13% 2.49% 9.62% 35 7.54% 2.49% 10.03% 15.07% 2.49% 17.56% 7.25% 2.49% 9.74% 36 7.66% 2.49% 10.15% 15.32% 2.49% 17.81% 7.37% 2.49% 9.86% 37 7.79% 2.49% 10.28% 15.58% 2.49% 18.07% 7.49% 2.49% 9.98% 38 7.92% 2.49% 10.41% 15.85% 2.49% 18.34% 7.62% 2.49% 10.11% 39 8.06% 2.49% 10.55% 16.12% 2.49% 18.61% 7.75% 2.49% 10.24% 40 8.20% 2.49% 10.69% 16.40% 2.49% 18.89% 7.89% 2.49% 10.38% 41 8.35% 2.49% 10.84% 16.69% 2.49% 19.18% 8.03% 2.49% 10.52% 42 8.50% 2.49% 10.99% 16.99% 2.49% 19.48% 8.17% 2.49% 10.66% 43 8.32% 8.65% 2.49% 11.14% 17.30% 2.49% 19.79% 2.49% 10.81% 44 2.49% 20.12% 8.47% 8.82% 2.49% 11.31% 17.63% 2.49% 10.96% 45 8.98% 2.49% 11.47% 17.96% 2.49% 20.45% 8.62% 2.49% 11.11% 46 9.15% 2.49% 11.64% 18.30% 2.49% 20.79% 8.77% 2.49% 11.26% 47 9.32% 2.49% 11.81% 18.65% 2.49% 21.14% 8.90% 2.49% 11.39% 48 9.49% 2.49% 11.98% 18.98% 2.49% 21.47% 9.02% 2.49% 11.51% 49 9.64% 2.49% 12.13% 19.27% 2.49% 21.76% 9.12% 2.49% 11.61% 50 9.76% 2.49% 12.25% 19.53% 2.49% 22.02% 9.14% 2.49% 11.63% 51 2.49% 2.49% 22.20% 9.14% 2.49% 9.85% 12.34% 19.71% 11.63% 52 9.85% 2.49% 12.34% 19.71% 2.49% 22.20% 9.14% 2.49% 11.63% 53 9.85% 2.49% 12.34% 19.71% 2.49% 22.20% 9.34% 2.49% 11.83% 54 9.85% 2.49% 12.34% 19.71% 2.49% 22.20% 9.65% 2.49% 12.14% 55 2.49% 12.34% 19.71% 2.49% 22.20% 9.65% 2.49% 12.14% 9.85% 56 9.85% 2.49% 12.34% 19.71% 2.49% 22.20% 9.65% 2.49% 12.14% 57 2.49% 12.34% 19.71% 2.49% 22.20% 9.65% 2.49% 12.14% 9.85% 58 9.85% 2.49% 12.34% 19.71% 2.49% 22.20% 9.65% 2.49% 12.14%

Members do not pay COLA contributions

9.85%

9.85%

Assumptions:

59

Interest: 7.00%

Salary: 2022 Valuation Scale (Service based, includes wage inflation at 3.00%)

12.34%

12.34%

Unisex Public Safety 2010 Above-Median Income – PUBS-2010(A) – Retiree Mortality Table, projected to 2047 using 80% of

2.49%

2.49%

22.20%

22.20%

9.65%

9.65%

2.49%

2.49%

12.14%

12.14%

Mortality: Scale MP-2020 (blended 80% Male / 20% Female)

2.49%

2.49%

Administrative Rates have been loaded by 3.30% to account for expected administrative expenses allocated to the members.

19.71%

19.71%

expeneses:



APPENDIX C – EMPLOYER CONTRIBUTION RATES WITH MEMBER COST-SHARING ADJUSTMENTS

General Employer Contribution Rates after Member Cost-Sharing All Bargaining Units Except for Unrepresented Managers (incl CEO) (35,40,41,42,43)

	5A	5B	5C	Plan 7
June 30, 2022 Contribution Rate for FYE 2024	37.14%	37.01%	38.93%	39.72%
Adjusted Member Cost-Sharing Contributions	<u>-2.48%</u>	<u>-2.48%</u>	<u>-2.48%</u>	<u>-2.48%</u>
Net Employer Rate Effective July 1, 2023	34.66%	34.53%	36.45%	37.24%
June 30, 2023 Contribution Rate for FYE 2025	36.72%	36.04%	38.18%	39.05%
Adjusted Member Cost-Sharing Contributions	<u>-2.48%</u>	<u>-2.48%</u>	<u>-2.48%</u>	<u>-2.48%</u>
Net Employer Rate Effective July 1, 2024	34.24%	33.56%	35.70%	36.57%

General Employer Contribution Rates after Member Cost-Sharing Unrepresented Managers (including CEO) (35, 40, 41, 42, 43)

	5A	5B	5C	Plan 7
June 30, 2022 Contribution Rate for FYE 2024	37.14%	37.01%	38.93%	39.72%
Adjusted Member Cost-Sharing Contributions	<u>-2.47%</u>	<u>-2.47%</u>	<u>-2.47%</u>	<u>-2.47%</u>
Net Employer Rate Effective July 1, 2023	34.67%	34.54%	36.46%	37.25%
June 30, 2023 Contribution Rate for FYE 2025	36.72%	36.04%	38.18%	39.05%
Adjusted Member Cost-Sharing Contributions	<u>-2.47%</u>	<u>-2.47%</u>	<u>-2.47%</u>	<u>-2.47%</u>
Net Employer Rate Effective July 1, 2024	34.25%	33.57%	35.71%	36.58%



APPENDIX C – EMPLOYER CONTRIBUTION RATES WITH MEMBER COST-SHARING ADJUSTMENTS

Safety Employer Contribution Rates after Member Cost-Sharing								
Fire Fighters Local 2046 (12, 13) and Deputy Sheriffs' Association (14, 15), Probation Peace Officers (18,19) and Sheriff Managers Association (44)								
	4A	4B	4C	6A	6B			
June 30, 2022 Contribution Rate for FYE 2024	61.25%	63.52%	59.55%	70.17%	69.01%			
Adjusted Member Cost-Sharing Contributions	<u>-5.97%</u>	<u>-5.97%</u>	<u>-5.97%</u>	<u>-5.97%</u>	<u>-5.97%</u>			
Net Employer Rate Effective July 1, 2023	55.28%	57.55%	53.58%	64.20%	63.04%			
June 30, 2023 Contribution Rate for FYE 2025	61.99%	64.73%	60.12%	76.84%	69.99%			
Adjusted Member Cost-Sharing Contributions	<u>-5.97%</u>	<u>-5.97%</u>	<u>-5.97%</u>	<u>-5.97%</u>	<u>-5.97%</u>			
Net Employer Rate Effective July 1, 2024	56.02%	58.76%	54.15%	70.87%	64.02%			

Safety Employer Contribution Rates after Member Cost-Sharing								
Unrepresented Safety I	Managers (35, 4	10, 41, 42, 4	3)					
	4 A	4B	4C	6A	6B			
June 30, 2022 Contribution Rate for FYE 2024	61.25%	63.52%	59.55%	70.17%	69.01%			
Adjusted Member Cost-Sharing Contributions	<u>-2.47%</u>	-2.47%	<u>-2.47%</u>	<u>-2.47%</u>	-2.47%			
Net Employer Rate Effective July 1, 2023	58.78%	61.05%	57.08%	67.70%	66.54%			
June 30, 2023 Contribution Rate for FYE 2025	61.99%	64.73%	60.12%	76.84%	69.99%			
Adjusted Member Cost-Sharing Contributions	<u>-2.47%</u>	<u>-2.47%</u>	<u>-2.47%</u>	<u>-2.47%</u>	<u>-2.47%</u>			
Net Employer Rate Effective July 1, 2024	59.52%	62.26%	57.65%	74.37%	67.52%			



APPENDIX D – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

Contribution Allocation Procedure

The contribution allocation procedure primarily consists of an actuarial cost method, an asset valuation method, and an amortization method as described below. This contribution allocation procedure, combined with reasonable assumptions, produces a Reasonable Actuarially Determined Contribution as defined in Actuarial Standard of Practice No. 4. The contribution allocation procedure was selected to balance benefit security, intergenerational equity, and the stability of actuarially determined contributions. The selection also considered the demographics of plan members, the funding goals and objectives of the Board, and the need to accumulate assets to make benefit payments when due. There were no changes to the contribution allocation procedures from the prior valuation.

1. Actuarial Cost Method

The actuarial valuation is prepared using the Entry Age Actuarial Cost Method (CERL 31453.5). Under the principles of this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit (until maximum retirement age). For members who transferred between plans, entry age is based on original entry into the system. The normal cost for the Plan is based on the sum of the individual normal costs for each member (Individual Entry Age Method).

2. Amortization Method

The UAL (or Surplus Funding) is amortized as a percentage of the projected salaries of present and future members of SBCERS. Effective with the June 30, 2013 valuation, the UAL as of June 30, 2013 is amortized over a closed 17-year period, except for the additional UAL attributable to the creation of Safety Plan 6, which is being amortized over a separate closed period (currently five years). Effective with the June 30, 2014 valuation, any new sources of UAL due to actuarial gains and losses, assumption changes, or method changes is amortized over a closed 19-year period, with five-year ramp up period at the beginning of the period, a four-year ramp down at the end of the period, and 10 years of level payments as a percentage of payroll. This new method is a type of direct rate smoothing method.

The single equivalent amortization period is nine years. As of June 30, 2023, it would take approximately nine years to fully pay off the total Unfunded Actuarial Liability based on the current UAL payment increasing as a level percentage of payroll.

3. Asset Valuation Method

As of June 30, 2014, the Market Value of Assets is used to determine the System's UAL. A smoothed Actuarial Value of Assets is no longer used.



APPENDIX D – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

Actuarial Assumptions

The assumptions used in this report reflect the results of an experience study performed by Cheiron covering the period from July 1, 2019 through June 30, 2022. More details on the rationale for the demographic and economic assumptions can be found in the Actuarial Experience Study report that will be presented to the Board on December 7, 2022. The combined effect of the assumptions is expected to have no significant bias for the purpose of this measurement.

1. Rate of Return

Assets are assumed to earn 7.00%, net of investment expenses.

2. Low-Default-Risk Obligation Measure Discount Rate (effective June 30, 2023)

The discount rate used to calculate the Low-Default-Risk Obligation Measure (LDROM) is the FTSE Pension Liability Index as of the valuation date. This index was selected because it reflects the types of fixed-income securities the Plan would likely invest in if the Trustees wanted to match cash flows. The rate for this valuation is 4.92%.

3. Administrative Expenses

Administrative expenses are assumed to be \$6.59 million for the next year, to be split between employees and employers based on their share of the overall contributions. This is equivalent to a 3.30% load to both the member and employer contribution rates. Administrative expenses are assumed to increase by the assumed wage inflation of 3.00% each year.

4. Cost-of-Living

The cost-of-living as measured by the Consumer Price Index (CPI) will increase at the rate of 2.75% per year. This assumption is also used for increasing the compensation limit that applies to PEPRA members.

5. Post Retirement COLA

For members who are currently in pay status, benefits are assumed to increase at the rate of 2.9% per year for General Plans 5, Safety Plans 4, 6 and 8 (PEPRA), and APCD Plans 1 and 2. For future retirees in these groups, benefits are assumed to increase at the rate of 2.6% per year. For General Plan 8 (PEPRA), if their employer had not implemented General Plan 7 prior to January 1, 2013, benefits are assumed to increase at the rates described above.



APPENDIX D – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

For all members, benefits are assumed to increase at the rate of 2.00% per year for General Plans 7, APCD Plan 8 (PEPRA), and General Plan 8 (PEPRA) members for whom their employer had implemented General Plan 7 prior to January 1, 2013.

For members in General Plan 2, benefits amounts are assumed to remain constant after retirement.

6. Internal Revenue Code Section 415 Limit

The Internal Revenue Code Section 415 maximum benefit limitations are not reflected in the valuation for funding purposes. Any limitation is reflected in a member's benefit after retirement.

7. Internal Revenue Code Section 401(a)(17)

The Internal Revenue Code Section 401(a)(17) maximum compensation limitation is not reflected in the valuation for funding purposes. Any limitation is reflected in a member's benefit after retirement.

8. Social Security Wage Base

General Plan 2 members have their benefits offset by an assumed Social Security Benefit. For projecting the Social Security Benefit, the annual Social Security Wage Base increase is assumed to be 2.75% per year.

9. Interest on Member Contributions

The annual credited interest rate on member contributions is assumed to be 3.25%. As of June 30, 2008, the credited interest rate each six-month period is the semi-annual yield of the five-year Treasury note as of the last business day of the interest-crediting period.

10. Sick Leave Service Credit Upon Retirement

Upon retirement, members are entitled to turn their sick leave balances into service credit for retirement benefits. Members are limited to one year of service credit. For safety plan members, a 2.25% load was applied to the expected years of service at retirement for sick leave service credit. For general plan members, the load was 1.25%.



APPENDIX D – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

11. Family Composition

Percentage married for all active members who retire, become disabled, or die during active service is shown in the table below. Male members are assumed to be three years older than their spouses and female members are assumed to be one year younger than their spouses.

Percentage Married				
Gender	Percentage			
Males	75%			
Females	60%			

12. Vacation Cash Out

Any cash outs of vacation during the final average salary period affecting the calculation of a retirement benefit are recognized at the time of retirement. There is no pre-recognition of potential costs included in the valuation.



APPENDIX D – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

13. Increases in Pay

Wage inflation component: 3.00%

Additional longevity and promotion component:

Longev	ity and Promotic	on Increases
Service	General	Safety
0	4.75%	7.25%
1	4.00%	5.00%
2	3.25%	5.00%
3	2.75%	3.25%
4	2.25%	2.50%
5	1.75%	2.00%
6	1.50%	1.60%
7	1.25%	1.30%
8	1.20%	1.20%
9	1.10%	1.10%
10	1.00%	1.00%
11	0.90%	1.00%
12	0.80%	1.00%
13	0.70%	1.00%
14	0.60%	1.00%
15	0.55%	1.00%
16	0.50%	1.00%
17	0.48%	1.00%
18	0.46%	1.00%
19	0.44%	1.00%
20	0.42%	1.00%
21	0.40%	1.00%
22	0.38%	1.00%
23	0.38%	1.00%
24	0.38%	1.00%
25	0.38%	1.00%
26	0.38%	1.00%
27	0.38%	1.00%
28	0.38%	1.00%
29	0.38%	1.00%
30+	0.38%	1.00%

Increases are compound rather than additive.



APPENDIX D – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

14. Rates of Termination

Sample rates of termination are shown in the following table. The 1.30% rate of termination continues for Safety PEPRA members with 20 or more years of service who are not eligible to retire.

Rates of Termination							
Service	General	Safety					
0	20.00%	9.00%					
1	14.00%	7.00%					
2	10.00%	5.00%					
3	8.00%	4.50%					
4	7.00%	4.00%					
5	7.00%	3.75%					
6	6.00%	3.50%					
7	6.00%	3.25%					
8	6.00%	3.00%					
9	5.00%	2.25%					
10	4.50%	2.00%					
11	3.50%	1.50%					
12	3.00%	1.30%					
13	3.00%	1.30%					
14	2.75%	1.30%					
15	2.75%	1.30%					
16	2.75%	1.30%					
17	2.50%	1.30%					
18	2.50%	1.30%					
19	2.50%	1.30%					
20	1.50%	0.00%					
21	1.50%						
22	1.50%						
23	1.50%						
24	1.50%						
25	1.50%						
26	1.50%						
27	1.50%						
28	1.50%						
29	1.50%						
30	0.00%						

Termination rates do not apply once a member is eligible for retirement.



APPENDIX D – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

15. Withdrawal

Rates of withdrawal apply to active Members who terminate their employment and withdraw their member contributions, forfeiting entitlement to future Plan benefits.

Rates of Withdrawal							
Service	General	Safety					
0	100.00%	100.00%					
1	100.00%	100.00%					
2	100.00%	100.00%					
3	100.00%	100.00%					
4	100.00%	100.00%					
5	15.00%	10.00%					
6	15.00%	10.00%					
7	15.00%	10.00%					
8	15.00%	10.00%					
9	15.00%	10.00%					
10	15.00%	5.00%					
11	15.00%	5.00%					
12	15.00%	5.00%					
13	15.00%	5.00%					
14	15.00%	5.00%					
15	5.00%	0.00%					
16	5.00%	0.00%					
17	5.00%	0.00%					
18	5.00%	0.00%					
19	5.00%	0.00%					
20	5.00%	0.00%					
21	5.00%	0.00%					
22	5.00%	0.00%					
23	5.00%	0.00%					
24	5.00%	0.00%					
25	0.00%	0.00%					
26	0.00%	0.00%					
27	0.00%	0.00%					
28	0.00%	0.00%					
29	0.00%	0.00%					
30	0.00%	0.00%					



APPENDIX D – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

Former members with contributions on deposit who commence benefits from deferred vested status are assumed to receive a retirement benefit commencing at the following ages:

General Plans 5, 7, and 8 (PEPRA) Members:	Age 58
General Plan 2 Members:	Age 60
Safety Plans 4 and 8 (PEPRA) Members:	Age 55
Safety Plan 6 Members:	Age 50
APCD Members:	Age 58

16. Reciprocal Transfers

30% of vested terminated General (except Plan 2) and 35% of vested terminated Safety Members that leave their member contributions on deposit with the Plan are assumed to be reciprocal.

Reciprocal members are assumed to remain with the reciprocal agency until retirement, and receive annual salary increases of:

General & APCD Members: 3.375% Safety Members: 4.000%

Reciprocal members are assumed to commence retirement benefits at the following ages:

General Plans 5, 7, and 8 (PEPRA) Members:	Age 62
General Plan 2 Members:	Age 60
Safety Plans 4 and 8 (PEPRA) Members:	Age 55
Safety Plan 6 Members:	Age 55
APCD Members:	Age 62



APPENDIX D – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

17. Rates of Disability

General member rates are based on the sex distinct 2021 CalPERS Non-Industrial Disability Miscellaneous Public Agency rates.

Safety members are based on the 2021 CalPERS Public Agency County Peace Officer Industrial Disability rates.

Representative disability rates of active participants are shown below.

Rates of Disability							
	General Safety						
Age	Males	Females					
20	0.007%	0.004%	0.042%				
25	0.007%	0.009%	0.131%				
30	0.017%	0.033%	0.249%				
35	0.035%	0.065%	0.370%				
40	0.091%	0.119%	0.513%				
45	0.149%	0.185%	0.672%				
50	0.154%	0.193%	0.919%				
55	0.139%	0.129%	1.505%				
60	0.124%	0.094%	1.740%				
65	0.109%	0.083%	2.093%				
70	0.097%	0.054%	2.624%				
75	0.097%	0.035%	3.421%				
80	0.097%	0.035%	7.621%				

60% of General disabilities and 100% of Safety disabilities are assumed to be service-related.



APPENDIX D – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

18. Rates of Mortality for Healthy Lives

Mortality rates for General active members are based on the sex distinct Public General 2010 Above-Median Income Employee Mortality Table, with generational mortality improvements projected from 2010 using 80% of Projection Scale MP-2020, without adjustment.

Non-duty related mortality rates for Safety active members are based on the sex distinct Public Safety 2010 Above-Median Income Employee Mortality Table, with generational mortality improvements projected from 2010 using 80% of Projection Scale MP-2020, without adjustment.

Safety active members are also subject to the 2021 CalPERS Preretirement Industrial Mortality Table for duty-related deaths, with generational improvements projected from 2017 using 80% of Projection Scale MP-2020.

Mortality rates for healthy General annuitants are based on the sex distinct Public General 2010 Above-Median Income Retiree Mortality Table, with generational mortality improvements projected from 2010 using 80% of Projection Scale MP-2020.

Mortality rates for Safety annuitants are based the sex distinct Public Safety 2010 Above-Median Income Retiree Mortality Table, with generational improvements projected from 2010 using 80% of Projection Scale MP-2020.

19. Rates of Mortality for Retired Disabled Lives

Mortality rates for General disabled retirees are differentiated by type of disability retirement.

- a) General disabled retirees with duty disabilities are valued with mortality rates based on the 2021 CalPERS Industrial Disabled Annuitant Mortality Table, with generational improvements projected from 2017 using 80% of Projection Scale MP-2020.
- b) General disabled retirees with non-duty disabilities are valued with mortality rates based on the 2021 CalPERS Non-Industrial Disabled Annuitant Mortality Table, with generational improvements projected from 2017 using 80% of Projection Scale MP-2020.
- c) Mortality rates for General active members assumed to become disabled are valued using the previously stated assumption that 60% of General disabilities are service related (e.g., duty or industrial). The mortality rates used for this group are a blend of 60% of the table described in (a) above and 40% of the table described in (b) above, with generational improvements projected from 2017 using 80% of Projection Scale MP-2020.



APPENDIX D – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

d) Mortality rates for Safety disabled retirees are based on 2021 CalPERS Industrial Disabled Annuitant Mortality Table, with generational improvements projected from 2017 using 80% of Projection Scale MP-2020.

20. Benefit Payment Timing

End of the month.

21. Benefit Load for Part-Time Employees

A load is applied to benefits for part-time active members who worked less than 2,080 in the previous plan year to better reflect their projected benefits at retirement. The loads are calculated on an individual basis based upon the participant's age, service, and hours worked.

Members not identified as part-time but who work fewer than 2,080 hours are assumed to be on a leave of absence. For these members, salaries are annualized only for purposes of determining benefits and liabilities.



APPENDIX D – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

22. Rates of Retirement

Rates of retirement are based on age and service according to the following table. The rates for Safety PEPRA members are the same as the Safety Plan 4 rates.

					Rates of B	Retirement					
								S	afety		
		General		General	- PEPRA		Plan 4			Plan 6	
Age	Svc < 20	20-29	Svc >= 30	Svc < 25	Svc >= 25	Svc < 20	20-29	Svc >= 30	Svc < 20	20-29	Svc >= 30
< 38	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
38	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.50%	3.00%	0.00%	3.00%	3.00%
39	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.50%	3.00%	0.00%	3.00%	3.00%
40	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.50%	3.00%	0.00%	3.00%	3.00%
41	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.50%	3.00%	0.00%	3.00%	3.00%
42	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.50%	3.00%	0.00%	3.00%	3.00%
43	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.50%	3.00%	0.00%	3.00%	3.00%
44	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.50%	3.00%	0.00%	3.00%	3.00%
45	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.50%	3.00%	0.00%	3.00%	3.00%
46	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.50%	3.00%	0.00%	3.00%	3.00%
47	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.50%	3.00%	0.00%	3.00%	3.00%
48	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.50%	3.00%	0.00%	3.00%	3.00%
49	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.50%	3.00%	0.00%	15.00%	50.00%
50	2.00%	2.00%	10.00%	0.00%	0.00%	3.00%	2.50%	5.00%	10.00%	25.00%	50.00%
51	2.50%	2.50%	4.00%	0.00%	0.00%	3.00%	2.50%	5.00%	10.00%	15.00%	20.00%
52	2.50%	2.50%	4.00%	2.00%	3.00%	3.00%	2.50%	5.00%	10.00%	15.00%	20.00%
53	4.00%	4.00%	4.00%	2.00%	2.00%	3.00%	5.00%	5.00%	7.50%	15.00%	20.00%
54	4.00%	4.00%	5.00%	3.00%	3.50%	10.00%	10.00%	30.00%	7.50%	15.00%	30.00%
55	4.00%	5.00%	10.00%	3.00%	7.00%	10.00%	25.00%	50.00%	7.50%	15.00%	35.00%
56	4.00%	5.00%	10.00%	3.00%	7.00%	10.00%	15.00%	25.00%	7.50%	15.00%	35.00%
57	7.00%	7.00%	10.00%	4.50%	6.00%	10.00%	15.00%	25.00%	10.00%	25.00%	35.00%
58	7.00%	7.00%	10.00%	4.50%	6.00%	10.00%	15.00%	40.00%	10.00%	25.00%	35.00%
59	7.00%	7.00%	15.00%	5.00%	10.00%	10.00%	30.00%	40.00%	15.00%	25.00%	35.00%
60	7.00%	10.00%	15.00%	5.00%	10.00%	10.00%	30.00%	40.00%	15.00%	25.00%	35.00%
61	15.00%	20.00%	30.00%	12.50%	15.00%	25.00%	30.00%	40.00%	20.00%	25.00%	35.00%
62	20.00%	30.00%	40.00%	15.00%	25.00%	25.00%	30.00%	40.00%	20.00%	25.00%	35.00%
63	15.00%	25.00%	40.00%	10.00%	25.00%	15.00%	30.00%	40.00%	10.00%	25.00%	35.00%
64	25.00%	25.00%	40.00%	15.00%	20.00%	15.00%	30.00%	40.00%	10.00%	25.00%	35.00%
65	30.00%	40.00%	50.00%	20.00%	30.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
66	30.00%	40.00%	50.00%	20.00%	30.00%						
67	26.00%	33.00%	40.00%	35.00%	40.00%						
68	26.00%	33.00%	40.00%	20.00%	30.00%						
69	26.00%	33.00%	40.00%	20.00%	30.00%						
70	26.00%	33.00%	40.00%	20.00%	30.00%						
71	26.00%	33.00%	40.00%	20.00%	30.00%						
72	26.00%	33.00%	40.00%	20.00%	30.00%						
73	26.00%	33.00%	40.00%	20.00%	30.00%						
74	26.00%	33.00%	40.00%	20.00%	30.00%						
75	100.00%	100.00%	100.00%	100.00%	100.00%						

23. Changes Since Last Valuation

The LDROM discount rate assumption was added.



APPENDIX E – SUMMARY OF PLAN PROVISIONS

All actuarial calculations are based on our understanding of the statutes governing the SBCERS as contained in the County Employees' Retirement Law (CERL) of 1937, with provisions adopted by the County Board of Supervisors, a district Board of Directors, or the SBCERS Board, effective through June 30, 2023. The benefit and contribution provisions of this law are summarized below, (along with corresponding references to the State Code). This summary does not attempt to cover all the detailed provisions of the law.

There have been no changes to the Plan provisions since the prior valuation.

A. Membership in Retirement Plans

The County has established several defined benefit tiers based primarily on a member's date of entry into SBCERS and in some cases, bargaining unit. There are two types of SBCERS members:

Safety members: Employees whose principal duty is active law enforcement or active fire suppression are eligible to be Safety members. Membership in a particular tier depends upon date of entry to the system and bargaining unit.

General members: All non-Safety employees are eligible to be General members. Membership in a particular tier depends primarily upon date of entry to the system. General members employed by Santa Barbara County Air Pollution Control District (APCD) are in APCD Plan 1, APCD Plan 2, General Plan 7, or General Plan 8 depending upon their date of entry to the system.

APCD Plan 1: APCD employees hired on or before July 3, 1995.

APCD Plan 2: APCD employees hired after July 3, 1995.

General Plan 2: Employees hired on or before June 30, 1999, who elected to join

General Plan 2. Once vested, Plan 2 members have a one-time election to defer accrued Plan 2 benefits and enter a contributory plan in effect at the time of election. Contributions are based upon age at

time of transfer.

Safety Plan 4A &

General Plan 5A: General employees hired before October 10, 1994, who did not elect

to join General Plan 2, and some Safety employees hired before

October 10, 1994.

Safety Plan 4B &

General Plan 5B: Employees in certain bargaining units hired on or after October 10, 1994.

Some employees are in Safety Plan 4B without regard to hire date.



APPENDIX E – SUMMARY OF PLAN PROVISIONS

General Plan 5C: Members in certain bargaining units hired on or after October 10, 1994.

Members in those bargaining units transferred from Plan 5B on

March 10, 2008.

General Plan 7: County General employees hired on or after June 25, 2012, and other

new non-PEPRA General hires for employers that have adopted Plan 7.

Safety Plan 4C: Members in certain bargaining units who were hired on or after

October 10, 1994. All members in certain bargaining units. Members in

those bargaining units transferred from Plan 4B on July 3, 2006.

Safety Plan 6A: Members in certain bargaining units hired prior to October 10, 1994.

Members in those bargaining units transferred from Plan 4A on

February 25, 2008.

Safety Plan 6B: Members in certain bargaining units hired after October 10, 1994.

Members in those bargaining units transferred from Plan 4B on

February 25, 2008.

Plan 8 (PEPRA): All new members hired on or after January 1, 2013. Employees who

transfer from and are eligible for reciprocity with another public employer will not be PEPRA members if their service in the reciprocal

system was under a pre-PEPRA tier.

B. Member Contributions

Basic:

Contributions are based on the entry age and class of each member and are required of all members except General Plan 2 members. See Appendix C for details on this calculation. Current member rates are shown in the Appendix. (31453, 31454, 31454.1)

Contributions cease for all non-PEPRA safety members credited with 30 years of service. (31625, 31625.2)

Plan 8: PEPRA members must contribute half of the normal cost of the Plan. Contributions for these members will be based on the Normal Cost associated with their benefits; General and Safety members will pay different rates.

Interest is credited to contributions semiannually on June 30 and December 31 at an interest rate set by the Board of Retirement on amounts that have been on deposit for at least six months. (31591, 31700)



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APPENDIX E – SUMMARY OF PLAN PROVISIONS

Cost-of-Living: Some members may contribute towards the cost-of-living benefit based

on increases in COLA Normal Cost rates. No additional employee contributions towards the cost-of-living benefits are included in the

current employee rates.

Cost-Sharing: Members contribute a varying amount based on entry age and Plan.

General Plan 5A member rates are half General Plan 5B member rates.

General Plan 5C is based on half rates.

APCD Plan 1 member rates are half APCD Plan 2 member rates. Safety Plan 4A member rates are half Safety Plan 4B member rates.

Safety Plans 4C, 6A, and 6B are based on half rates. (31621.2, 31621.4, 31621.5, 31621.6, 31581.1)

C. Employer Contributions:

The employer (County or District) contributes to the retirement fund a percentage of the total compensation provided for all members based on an actuarial investigation, valuation, and recommendation of the actuary. (31453, 31453.5, 31453.6, 31454, 31454.1, 31581)

D. Service Retirement Allowance:

Eligibility:

General Plan members:

Plans 5A,

5B, 5C, &7: Age 50 with five years of service and 10 years of elapsed time since

membership;

Any age with 30 years of service; or

Age 70 regardless of service. (31672, 31672.1)

Plan 2: Age 55 with 10 years of service and 10 years of elapsed time since

membership. (31486.4)

APCD Plan members:

Age 50 with five years of service and 10 years of elapsed time since

membership;

Any age with 30 years of service; or

Age 70 regardless of service. (31672, 31672.1)

Safety Plan members:

Age 50 with five years of service and 10 years of elapsed time since

membership;

Any age with 20 years of service. (31663.25)



APPENDIX E – SUMMARY OF PLAN PROVISIONS

PEPRA Plan 8 members:

General and APCD: Age 52 with five years of service.

Safety: Age 50 with 5 years of service.

All PEPRA members: Age 70 regardless of service. (31672.3)

Final Compensation:

General Plan members:

Plans 5A & 5B: Monthly average of a member's highest 12 consecutive months of compensation. (31462.1)

Plans 5C & 7: Monthly average of a member's highest 36 consecutive months of compensation. (31462)

Plan 2: Monthly average of a member's highest 36 non-consecutive months of compensation.

APCD Plan members:

Plans 1 & 2: Monthly average of a member's highest 12 consecutive months of compensation. (31486.1)

Safety Plan members

Plans 4A, 4B, Monthly average of a member's highest 12 consecutive months of & 6A: compensation. (31462.1)

Plans 4C & 6B: Monthly average of a member's highest 36 consecutive months of compensation. (31462)

PEPRA Plan members:

Plan 8: Monthly average of a member's highest 36 consecutive months of pensionable compensation.

Compensation

Limit: The amount of compensation that is taken into account in computing benefits

payable to any person who first becomes a member on or after July 1, 1996, shall not exceed the dollar limitations in Section 401(a)(17) of Title 26 of the

US Code. (31671)

Plan 8: For PEPRA members, only pensionable compensation up to the Social

Security-integrated PEPRA compensation limit will count for computing Plan benefits and employee contributions and employer contributions for those participating in Social Security (\$146,042 for calendar year 2023 and \$151,446 for calendar year 2024). For those not participating in Social Security, the compensation cap is 120% of the above limit (\$175,250 for calendar year 2023 and \$181,734 for calendar year 2024). In addition, it is possible that some sources of compensation, such as any payments deemed to be terminal or special pays, may be excluded from the benefit and contribution computations for PEPRA members.



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APPENDIX E – SUMMARY OF PLAN PROVISIONS

Monthly Allowance:

General Plan members:

Plans 5A,

5B & 5C: 2% x Final Compensation x Plan 5 Age Factor x Years of Service.

(31676.12)

Plan 7: 1/60 x Final Compensation x Plan 7 Age Factor x Years of Service.

(31676.1)

Plan 2: Sum of (a) + (b) – (c):

(a) 2% x Final Compensation x Years of Service (max. 35 years); plus

(b) 1% x Final Compensation x Years of Service in excess of 35 (max. 10

years); minus

(c) 1/35 x Primary Insurance Amount (PIA) at age 65 x Years of Covered

Service (max. 35 years). (31486.4)

The PIA is calculated based on certain assumptions specified by statute, and an assumed Social Security retirement age of 65. If retirement occurs prior to age 65, the benefit amount is adjusted by an actuarial equivalent factor.

Age Factors General Plan 2 Code Section: 31486.4(f)					
Age	Factor				
55	0.43				
56	0.47				
57	0.51				
58	0.55				
59	0.60				
60	0.65				
61	0.70				
62	0.77				
63	0.84				
64	0.91				
65	1.00				

APCD Plan members:

2% x Final Compensation x APCD Age Factor x Years of Service. (31676.15)



APPENDIX E – SUMMARY OF PLAN PROVISIONS

Safety Plan members:

3% x Final Compensation x Safety Age Factor x Years of Service. (31664.2)

Age Factors are higher for Plans 6A and 6B. (31664.1)

General, Safety and APCD members:

PEPRA Plan 8: PEPRA Age Factor x Final Compensation x Years of Service.

In between exact ages, the multiplier will increase by 0.025% for each quarter year increase in age.



APPENDIX E – SUMMARY OF PLAN PROVISIONS

Age Factors By Plan							
	C		General	A DCD		C C	
-		eneral Plan 7	& APCD	APCD	Dlan 4	Safety	Dlaw 9
Code Section:	Plan 5 31676.12	Plan 7 31676.1	Plan 8	31676.15	Plan 4 31664.2	Plan 6 31664.1	Plan 8
Label:			PEPRA				PEPRA
Base:	2% @ 57 2.00%	1.67% @ 57.5 1.67%	FEFNA	2.00%	3% @ 55 3.00%	3% @ 50 3.00%	TEFNA
Age:	2.00 /0	1.07 /0		2.00 /0	3.00 /0	3.00 /0	
41					0.4777	0.6258	
42					0.4777	0.6238	
43					0.5038	0.7004	
44					0.5647	0.7004	
45					0.5958	0.7397	
46					0.5938	0.7803	
47					0.6625	0.8220	
48					0.6936	0.8078	
49					0.0930	0.9083	
50	0.6681	0.7091		0.7454	0.7209	1.0000	0.0200
51	0.7056	0.7457		0.7434	0.7034	1.0000	0.0200
52	0.7050	0.7437	0.0100	0.7882	0.8028	1.0000	0.0210
53	0.7434	0.7810	0.0100	0.8850	0.8437	1.0000	0.0220
54	0.7882	0.8556	0.0110	0.8830	0.8920	1.0000	0.0230
55	0.8850	0.8954	0.0120	1.0000	1.0000	1.0000	0.0240
56	0.8850	0.9382	0.0130	1.0447	1.0000	1.0000	0.0230
57	1.0000	0.9382	0.0140	1.1048	1.0000	1.0000	0.0200
58	1.0000	1.0350	0.0150	1.1686	1.0000	1.0000	0.0270
59	1.10447	1.0330	0.0100	1.2365	1.0000	1.0000	0.0270
60	1.1686	1.0899	0.0170	1.2303	1.0000	1.0000	0.0270
61	1.1086	1.1300	0.0180	1.3693	1.0000	1.0000	0.0270
62	1.2363	1.1947	0.0190		1.0000	1.0000	0.0270
				1.4123	1.0000	1.0000	0.0270
63	1.3093	1.3186	0.0210	1.4638			
64	1.3093	1.3865	0.0220	1.5153	1.0000	1.0000	0.0270 0.0270
65	1.3093	1.4593	0.0230	1.5668	1.0000	1.0000	
66	1.3093	1.4593	0.0240	1.5668	1.0000	1.0000	0.0270
67	1.3093	1.4593	0.0250	1.5668	1.0000	1.0000	0.0270



APPENDIX E – SUMMARY OF PLAN PROVISIONS

Maximum Allowance:

General Plan 2: The sum of the normal retirement allowance and the estimated PIA cannot exceed 70% of Final Compensation for a member with 35 or less years of service and cannot exceed 80% of Final Compensation if service exceeds

35 years. (31486.4)

All other Plans: Allowance may not exceed 100% of Final Compensation (does not apply to PEPRA members).

Unmodified Retirement Allowance (Normal Form):

General Plan 2: Life Annuity payable to retired member with 50% continuance to an eligible survivor (or eligible children). (31486.6)

All other Plans: Life Annuity payable to retired member with 60% continuance to an eligible survivor (or eligible children). (31760.1)

Eligible survivor includes certain domestic partners. (31780.2) If there is no eligible survivor, any unpaid remainder of the member's accumulated contributions will be paid to the member's designated beneficiary.

Optional Retirement Allowance:

A member may elect to have the actuarial equivalent of the service or disability retirement allowance applied to a lesser retirement allowance during the retired member's life in order to provide an optional survivor allowance.

Option 1: Member's allowance is reduced to pay a cash refund of any unpaid annuity payments (up to the amount of the member's contributions at retirement) to the member's estate or to a beneficiary having an insurable interest in the life of the member. (31761)

Option 2: 100% of member's reduced allowance is payable to a surviving spouse or beneficiary having an insurable interest in the life of the member. (31762)

Option 3: 50% of member's reduced allowance is payable to a beneficiary having an insurable interest in the life of the member. (31763)

Option 4: Other % of member's reduced allowance is payable to a beneficiary(ies) having an insurable interest in the life of the member. (31764)

A member may not revoke and name another beneficiary if the member elects Option 2, 3 or 4. (31782)



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APPENDIX E – SUMMARY OF PLAN PROVISIONS

All Allowances: All allowances are made on a pro-rata basis (based on the number of days in that month) if not in effect for the entire month of retirement. (31600)

Death after Retirement:

General Plan 2: No benefit is payable upon death after retirement, other than in accordance with form of benefit allowance.

All other Plans: Upon a member's death after retirement, a special lump sum of \$5,000 is payable to an eligible survivor, or the member's estate. (31789.5)

E. Service-Connected Disability Retirement Allowance

Eligibility:

General Plan 2: Disability benefits not valued since provided outside of the retirement system. However, if a member becomes disabled, they may begin collecting their service retirement benefit upon attaining age 65.

All other Plans: Any age and length of service; disability must result from occupational injury or disease, and member must be permanently incapacitated for the performance of duty. (31720, 31720.5, 31720.6, 31720.7, 31720.9)

Monthly Allowance:

General Plan 2: Service retirement benefit payable at age 65 with service projected from disability until age 65. Prior to age 65, disability benefits are provided outside of retirement system.

All other Plans: Greater of (1) 50% of final compensation, and (2) the service retirement allowance, if eligible to retire. (31727.4)

Supplemental Disability Allowance:

APCD Members: Upon retirement for service disability, APCD members receive a monthly supplemental allowance of \$300. (31740)

Normal Form of Payment:

General Plan 2: Service retirement benefit payable at age 65 with service projected from disability until age 65. Prior to age 65, disability benefits are provided outside of retirement system. (31760, 31786)

All other Plans: Life Annuity payable to retired member with 100% continuance to an eligible survivor (or eligible children).



APPENDIX E – SUMMARY OF PLAN PROVISIONS

Death after Retirement:

General Plan 2: No benefit is payable upon death after retirement, other than in accordance

with form of benefit allowance.

All other Plans: Upon a member's death after retirement, a special lump sum of \$5,000 is

payable to an eligible survivor, or the member's estate. (31789.5)

F. Non-Service-Connected Disability Retirement Allowance

Eligibility:

General Plan 2: Disability benefits not valued since provided outside of the retirement system.

All other Plans: Any age with five years of service and permanently incapacitated for the

performance of duty. (31720)

Monthly Allowance:

General Plan 2: Service retirement benefit payable at age 65 with service projected from

disability until age 65. Prior to age 65, disability benefits are provided

outside of retirement system.

All other Plans: The monthly allowance is equal to a service retirement allowance if the member is eligible to retire and the service retirement allowance exceeds

member is eligible to retire and the service retirement allowance exceeds the benefits described below. Otherwise, allowance equals (a) or (b)

where: (31727, 31727.1, 31727.2, and 31727.3)

(a) 90% x 1/50 (1/60 for PEPRA General and PEPRA APCD members and those in Plan 7) x Final Compensation x years of service, if member must rely on service in another retirement system in order to

be eligible to retire, or allowance exceeds 1/3 of final compensation.

(b) 90% x 1/50 (1/60 for PEPRA General and APCD members and those in Plan 7) x Final Compensation x Projected Service, not to exceed

1/3 of Final Compensation.

Projected Service:

General Members: Age 62. (31727.1); Age 65 for Plan 8 (PEPRA) General members.

APCD Members: Age 65. (31727.3)

Safety Members: Age 55. (31727.2)



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APPENDIX E – SUMMARY OF PLAN PROVISIONS

Supplemental Monthly Disability Retirement:

APCD Members: Upon retirement for non-service disability, APCD members receive a monthly supplemental allowance of \$300. (31740)

Normal Form of Payment:

General Plan 2: Service retirement benefit payable at age 65 with service projected from disability until age 65. Prior to age 65, disability benefits are provided outside of retirement system.

All other Plans: Life Annuity with 60% continuance to a surviving spouse (or eligible children). (31760.1)

Death after Retirement:

General Plan 2: No benefit is payable upon death after retirement, other than in accordance with form of benefit allowance.

All other Plans: Life Annuity with 60% continuance to a surviving spouse (or eligible children). Upon a member's death after retirement, a special lump sum of \$5,000 is payable to an eligible survivor, or the member's estate. (31789.5)

G. Service-Connected Death Benefits

Eligibility:

All Plans: Active members who die in service as a result of injury or disease arising out of and in the course of employment. (31486.7, 31787)

Monthly Allowance:

General Plan 2: A lump sum is payable to an eligible survivor equal to 1/12 x final 12 months' Salary x years of service (up to max of six years). (31781)

All other Plans: A monthly allowance is payable to an eligible survivor equal to the greater of the Member's Service Retirement Allowance (if he is eligible for service Retirement at his date of death), and (b) 50% x Final Compensation. (31787)



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APPENDIX E – SUMMARY OF PLAN PROVISIONS

Supplemental Monthly Death Benefit:

APCD Members: Eligible survivors of an active members who dies while employed with at least 18 months continuous service immediately prior to death, shall receive a supplemental monthly allowance. The amount of the supplemental allowance is based on the family demographics of the beneficiaries. (31855.11, 31855.12)

H. Non-Service-Connected Death Benefits

Eligibility:

All Plans: Active members who die while in service but not as a result of injury or

disease arising out of and in the course of employment.

Monthly Allowance:

General Plan 2: A lump sum is payable to an eligible survivor equal to 1/12 x final 12

months' Salary x years of service (up to maximum of six years). (31781)

All other Plans: If an active member is eligible for Non-Service Connected Disability at

his date of death, then a monthly allowance is payable to an eligible survivor equal to 60% x the member's non-service connected disability allowance. Otherwise, the benefit is a refund of contributions plus a lump sum equal to 1/12 x final 12 months' Salary x years of service (up to

maximum of six years). (31781.1)

Supplemental Monthly Death Benefit:

APCD Members: Eligible survivors of an active member who dies while employed with at least 18 months continuous service immediately prior to death shall

receive a supplemental monthly allowance. The amount of the supplemental allowance is based on the family demographics of the

beneficiaries. (31855.11, 31855.12)

I. Deferred Vested Benefits

Eligibility:

General Plan 2: The member must have terminated with 10 years of service. Members are

eligible for service retirement when they reach service retirement eligibility (based on years of service at termination plus reciprocal service,

if any). (31700)



APPENDIX E – SUMMARY OF PLAN PROVISIONS

All other Plans: Member contributions must be left on deposit and the member must have

terminated with five years of service or entered a reciprocal agency. Members are eligible for service retirement when they reach service retirement eligibility (based on years of service at termination plus

reciprocal service, if any). (31700, 31701, 31702)

Monthly Allowance:

General Plan 2: Same as service retirement allowance at normal retirement age 65 or in an

actuarially equivalent reduced amount at early retirement, after age 55.

All other Plans: Same as service retirement allowance; payable any time after the member

would have been eligible for service retirement. (31703, 31704, 31705)

J. Cost-of-Living Increases

Cost-of-living increases (or decreases) are applied to all retirement allowances (service and disability), optional death allowances, and annual death allowances effective April 1, based on changes in the average annual Consumer Price Index (CPI), rounded to the nearest ½ of 1%. (31870, 31870.1)

All Plans (excluding General Plans 2, 7, and 8):

Members (and their beneficiaries) are limited to a maximum 3% cost-of-living increase. (31870.1)

General Plan 7:

Members (and their beneficiaries) are limited to a maximum 2% cost-of-living increase. (31870)

General Plan 8 (PEPRA):

Members (and their beneficiaries) hired by employers who had implemented General Plan 7 prior to January 1, 2013 are limited to a maximum 2% cost-of-living increase. (31870) Members hired by employers who had not implemented General Plan 7 prior to January 1, 2013, are limited to a maximum 3% cost-of-living increase. (31870.1)

General Plan 2: General Plan 2 does not have a COLA.



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APPENDIX E – SUMMARY OF PLAN PROVISIONS

COLA Bank:

All Plans (excluding General Plan 2):

When the CPI exceeds the applicable percentage, the difference between the actual CPI and the maximum cost-of-living increase given in any year is credited to the COLA Accumulation (COLA Bank). It may be used in future years to provide cost-of-living increases when the CPI falls below the applicable percentage. (31874, 31874.1, 31874.2, 31874.3)

General Plan 2: General Plan 2 does not have a COLA and, therefore, does not have a COLA Bank.



APPENDIX F – GLOSSARY

1. Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs such as mortality, withdrawal, disability, retirement, changes in compensation, and rates of investment return.

2. Actuarial Cost Method

A procedure for determining the actuarial present value of pension plan benefits and expenses and for developing an allocation of such value to each year of service, usually in the form of a normal cost and an Actuarial Liability.

3. Actuarial Gain (Loss)

The difference between actual experience and that expected based upon a set of Actuarial Assumptions during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

4. Actuarial Liability

The portion of the actuarial present value of projected benefits that will not be paid by future normal costs. It represents the value of the past normal costs with interest to the valuation date.

5. Actuarial Present Value (Present Value)

The value as of a given date of a future amount or series of payments. The actuarial present value discounts the payments to the given date at the assumed investment return and includes the probability of the payment being made.

6. Actuarial Valuation

The determination, as of a specified date, of the normal cost, Actuarial Liability, Actuarial Value of Assets, and related actuarial present values for a pension plan.

7. Actuarial Value of Assets

The value of cash, investments, and other property belonging to a pension plan as used by the actuary for the purpose of an actuarial valuation. The purpose of an Actuarial Value of Assets is to smooth out fluctuations in market values. As of the June 30, 2014 actuarial valuation, the Actuarial Value of Assets is equal to the market value.

8. Actuarially Equivalent

Of equal actuarial present value, determined as of a given date, with each value based on the same set of actuarial assumptions.

9. Amortization Payment

The portion of the pension plan contribution, which is designed to pay interest and principal on the Unfunded Actuarial Liability in order to pay for that liability in a given number of years.



APPENDIX F – GLOSSARY

10. Entry Age Normal Actuarial Cost Method

A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages.

11. Funded Ratio

The ratio of the Markel Value of Assets to the Actuarial Liability.

12. Normal Cost

That portion of the actuarial present value of pension plan benefits and expenses that is allocated to a valuation year by the actuarial cost method.

13. Projected Benefits

Those pension plan benefit amounts which are expected to be paid in the future under a particular set of actuarial assumptions, taking into account such items as increases in future compensation and service credits.

14. Unfunded Actuarial Liability

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





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