

Attachment B



Santa Barbara County Employees' Retirement System

Actuarial Valuation Report as of June 30, 2022

Produced by Cheiron

November 2022

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November 30, 2022

Board of Retirement Santa Barbara County Employees' Retirement System 130 Robin Hill Road, Suite 100 Goleta, CA 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, 2022. 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

ame Hayen

Graham A. Schmidt, ASA, EA, FCA, MAAA Consulting Actuary

FOREWORD

Cheiron has performed the actuarial valuation of the Santa Barbara County Employees' Retirement System as of June 30, 2022. 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
 - 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
 - Appendix A Membership Information
 - 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 2023-2024,
- 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, 2022 provided to SBCERS in November 2022.

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, 2023.

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 eight years), except for the additional UAL attributable to the creation of Safety Plan 6, which is being amortized over a separate closed period (currently six 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 will be 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, 2022 actuarial valuation are as follows:

- The actuarially determined employer contribution rate, net of employee cost-sharing, increased from 39.07% of payroll to 39.48% of payroll. The rate increased mainly due to the actuarial asset loss experienced in the plan year ending June 30, 2022 and the assumption changes from the June 30, 2022 experience study, but were somewhat offset by the phase-in of prior net gains in accordance with SBCERS' funding policy.
- The return on Plan assets for June 30, 2022 was -1.77% net of investment expenses and assuming mid-year cash flows as compared to the 7.00% assumption. This produced an actuarial asset loss of \$349.1 million.
- The System's funded ratio, the ratio of the Market Value of Assets over the Actuarial Liability, decreased from 89.5% last year to 82.7% as of June 30, 2022.
- The UAL is the excess of the System's Actuarial Liability over the Market Value of Assets. The System experienced an increase in the UAL from \$470.1 million to \$816.9 million, an increase of \$346.8 million. Table I-3 details the changes in UAL.
- The assumption changes recommended in the Actuarial Experience Study for the period ending June 30, 2022 increased the Actuarial Liability by \$76.5 million. These changes also increased the employer contribution rate by 0.55% of payroll for the June 30, 2022 valuation, and ultimately by about 2.1% of payroll in the June 30, 2026 valuation, after the five-year phase-in.
- The Actuarial Liability before the impact of the assumption changes increased slightly less than expected. As a result, the System experienced a gain on the Actuarial Liability of \$1.8 million, a 0.04% decrease as a percentage of the expected Actuarial Liability of \$4,639.2 million.
- Through collective bargaining agreements, certain members began making employer pick-up contributions starting September 10, 2018 with scheduled increases through November 16, 2020. The cost-sharing contributions are estimated to offset the net employer contribution rates by 1.88% for FYE 2023 and 1.75% for FYE 2024. 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	June 30, 2021 2023			ne 30, 2022 2024	Change	
Actuarial Liability Market Value of Assets Unfunded Actuarial Liability (UAL)	\$ 	4,460,991 3,990,899 470,092	\$ 	4,713,760 3,896,843 816,917	5.7% -2.4% 73.8%	
Funding Ratio Employer Contribution Rate Estimated Impact of Employee Cost-Sharing Net Employer Contribution Rate		89.5% 40.95% <u>-1.88%</u> 39.07%		82.7% 41.23% -1.75% 39.48%	-6.8% 0.28% <u>0.13%</u> 0.41%	

The key results shown in Table I-1 indicate that the Actuarial Liability increased by 5.7% and the Market Value of Assets decreased by 2.4%. As a result, the funding ratio decreased from 89.5% to 82.7%, a decrease of 6.8%. Additionally, the Unfunded Actuarial Liability (UAL) increased by \$346.8 million or 73.8% as of June 30, 2022.

The net employer contribution rate increased 0.41% from 39.07% to 39.48% of payroll, with the estimated offset from employee cost-sharing decreasing by 0.13% as more legacy members retire or leave the System.

Based on estimated fiscal year 2023-24 payroll of \$416 million, the estimated employer contributions are \$164 million net of cost-sharing for the fiscal year ending June 30, 2024. 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 2.0%. Active membership decreased by 1.0%, inactives increased by 5.3%, and members receiving benefits increased by 3.4%. Total payroll increased by 1.7%, which is less than the assumed 3.0% increase. The average pay per active member also increased by 2.7%.

Table I-2 Membership Total								
	J	une 30, 2021	J	une 30, 2022	% Change			
Actives		4,321		4,279	-1.0%			
Terminated Members		1,694		1,784	5.3%			
Members Receiving Benefits		4,906		5,075	3.4%			
Total Members		10,921		11,138	2.0%			
Ratio of Inactives to Active Members		1.53		1.60				
Active Member Projected Payroll	\$	397,040,432	\$	403,732,358	1.7%			
Average Pay per Active	\$	91,886	\$	94,352	2.7%			

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 Liabi (in thousands)	lity	
Unfunded Actuarial Liability, 6/30/2021	\$	470,092
Expected change in Unfunded Actuarial Liability	\$	(69,255)
Unfunded increase due to actuarial asset loss ¹		341,472
Unfunded decrease due to liability gain		(1,844)
Unfunded increase due to assumption changes		76,452
Total change in unfunded actuarial liability	\$	346,825
Unfunded Actuarial Liability, 6/30/2022	\$	816,917

¹ Includes gain due to contribution timing lag and loss due to expenses being more than expected.

The Unfunded Actuarial Liability (UAL) for SBCERS increased by \$346.8 million, from \$470.1 million to \$816.9 million. Table I-3 above presents the specific components of the change in the UAL.

The expected decrease in the UAL of \$69.3 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 assumption changes increased the UAL by about \$76.5 million primarily due to increasing the retiree cost-of-living assumption for current retirees from 2.6% to 2.9% for those with a 3% cap on their COLA and from 1.9% to 2.0% for those with a 2% cap on their COLA.

The actuarial asset loss, including the loss due to administrative expenses of \$0.6 million and the contribution-timing lag gain of \$3.7 million, increased the UAL by \$341.5 million. The liability experience decreased the UAL by \$1.8 million.



SECTION I – EXECUTIVE SUMMARY

Employer Contributions Comparison

Thus far, the experience of the 2021-22 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 increased by 0.41% for the June 30, 2022 valuation (after the impact of the employee cost-sharing). The employer normal cost decreased by 0.54%. The contribution component for the UAL amortization payment increased by 0.82%.

Overall, the employee contributions, as a weighted average of payroll, increased by 0.33% 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 0.21% of pay. The assumption changes increased the aggregate employee contribution rate by about 0.12%, primarily due to the Safety member rates increasing by about 0.35% of pay.

These increases to the employer contribution rate were slightly augmented by a decrease of 0.13% 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 Effective for Fiscal Year End	2021 FYE 2023	2022 FYE 2024	Total Change				
Gross Normal Cost Employee Contributions Employer Normal Cost UAL Amortization Payment Employer Contribution Rate Estimated Impact of Employee Cost-Sharing Net Employer Contribution Rate	22.74% 7.42% 15.32% 25.63% 40.95% -1.88% 39.07%	22.53%	-0.21%				



SECTION I – EXECUTIVE SUMMARY

Table I-5 summarizes the change in the net employer contributions rate from the last valuation by source.

Table I-5 Employer Contribution Rate Reconciliation (After Cost-Sharing)								
	Normal Cost	UAL Payment	Total	Dollars				
FYE 2023 Employer Contribution Rate	13.44%	25.63%	39.07%	\$159.8 M				
Expected Changes								
DRS amortization phase-in	0.00%	-1.60%	-1.60%					
PEPRA new hires	-0.36%	0.00%	-0.36%					
Employee Cost-Sharing	<u>0.15%</u>	0.00%	0.15%					
Total Expected Change	-0.21%	-1.60%	-1.81%					
Expected FYE 2024 Employer Rate	13.23%	24.03%	37.26%	\$157.0 M				
Effect of payroll on UAL payments	0.00%	0.38%	0.38%					
Change due to actuarial asset loss	0.00%	1.67%	1.67%					
Demographic experience	-0.38%	0.00%	-0.38%					
Assumption change	0.18%	0.37%	<u>0.55%</u>					
Total Unexpected Change	-0.20%	2.42%	2.22%					
FYE 2024 Employer Contribution Rate	13.03%	26.45%	39.48%	\$164.1 M				

A review of the changes in the employer contribution rate from the prior valuation shows that the FYE 2024 rate was expected to decrease by 1.81%, but it increased by 0.41% due to unexpected changes in the Plan's assets and liabilities. The largest driver of the increase in the employer contribution rate is the change due to the asset loss. The asset loss led to an increase in the contribution rate of 1.67% of payroll. The other components of the contribution rate change are as follows:

- The expected direct rate smoothing (DRS) amortization phase-in from prior years reduced the contribution rate by 1.60%. The reduction is primarily due to the continued phase-in of the large asset gain in the June 30, 2021 valuation, somewhat offset by prior UAL layers from the 2018-2020 valuations. Please refer to Table V-2 for details of the UAL amortization payments and Appendix D Contribution Allocation Procedure (page 85), which describes the amortization policy in detail.
- PEPRA members now make up 47% 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 0.36% of pay decrease in the employer contribution rate.



SECTION I – EXECUTIVE SUMMARY

- However, an increasing PEPRA membership also has the effect of a slight cost increase since they have not bargained any employee cost-sharing because they already have higher member rates. 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 0.15% of pay decrease, but the actual cost-sharing decreased from 1.88% to 1.75%, which increased the net employer contribution rate by 0.13%.
- Payroll used to amortize unfunded liabilities was lower than expected by about \$5.2 million. As a result, the UAL payments are spread over a smaller payroll base than expected, and the employer contribution rate, as a percentage of payroll, increased by 0.38%.
- Asset experience produced an investment loss that increased the contribution rate by 1.67% of pay. The assets of the Plan returned -1.8% (net of investment expenses), which is significantly lower than the assumed rate of 7.00%. The impact of the current year loss 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.
- Demographic experience produced a net decrease in cost of about 0.38% of pay, all from changes in the normal cost rate. The demographic experience of the Plan includes retirement, death, disability, and termination experience, as well as other factors such as changes in benefit and pay amounts.
- The assumption changes increased the employer contribution rate by 0.55% of payroll. As with the asset loss, the amortized portion of the UAL increase from assumption changes 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. The ultimate contribution rate increase after the phase-in is 2.05% of payroll.



SECTION I – EXECUTIVE SUMMARY

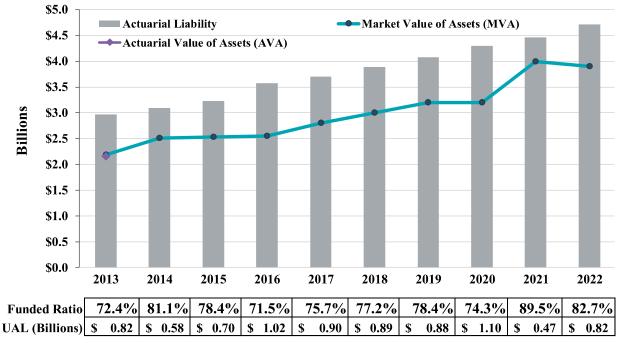
C. Historical Trends

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) and the Actuarial Value of Assets (AVA) in 2013 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 increase in funded ratio in 2014 to 81.1% was due to an asset gain and the switch to Market Value of Assets from Actuarial Value of Assets. The large decrease in funded ratio to 71.5% in 2016 was primarily due to changes in the actuarial assumptions. The gradual increase in the funded ratio from 2016 to 2019, reaching 78.4% was due to asset gains during the period as well as significant contributions. The decrease from 78.4% to 74.3% in 2020 was primarily due to actuarial asset losses. The significant increase in 2021 from 74.3% to 89.5% is primarily due to actuarial asset gains. Finally, the decrease from 89.5% to 82.7% in 2022 is due to actuarial asset losses as well as assumption changes.

Assets and Liabilities



As of 2014, the market value of assets is used to calculate the unfunded actuarial liability and funded ratio.



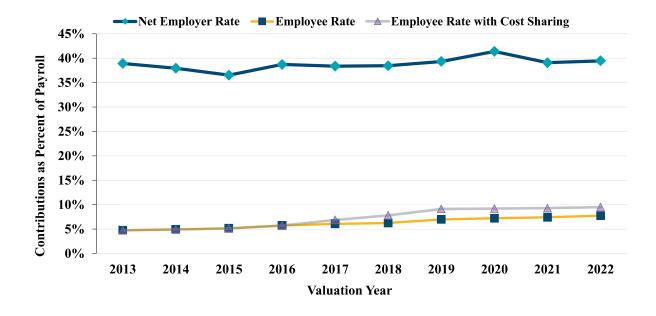
SECTION I – EXECUTIVE SUMMARY

Contribution Trends

In the chart below, we present the historical trends for the SBCERS contribution rates. The employer contribution rates have been very stable for the last 10 years, 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. The increase in the employer contribution rate in 2020 was driven mostly by the FYE 2020 asset losses and the final year of the 2016 assumption change being phased-in. The decrease in contribution rate in 2021 is driven mostly by the 25.9% asset return for June 30, 2021. The contribution rate increased only slightly in 2022 despite large asset losses and assumption changes due to offsetting actuarial gains from 2021 continuing to be phased-in.

The average employee contribution rates were relatively stable from 2013 to 2016, increasing slightly as the Plan's economic assumptions have changed and PEPRA members were hired. Average employee contributions rates have continued to increase since 2017 as more PEPRA members were hired and cost-sharing contributions for legacy members have been bargained.

Historical Contribution Rates





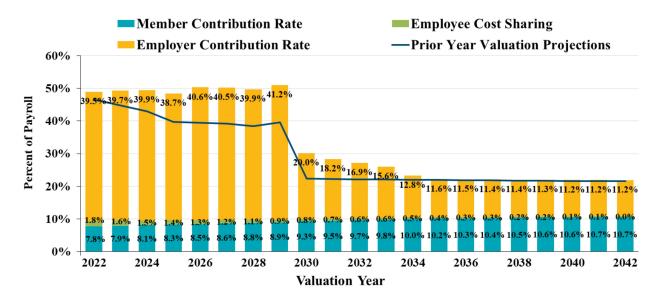
SECTION I – EXECUTIVE SUMMARY

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 39.5% of member payroll for the June 30, 2022 valuation. The employer rate is relatively stable between 2022 and 2029, with very gradual increases over the period. The current year's asset loss and assumption changes are offset by the prior year asset gain all being phased-in over the first several years of the projection. The contribution rate increases slightly in 2026 once the June 30, 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 2034 contribution rates decrease as amortization bases are phased out. After that point, employer contribution rates are expected to stabilize around 11% to 12% and are based on the normal cost rates since the UAL payment is negative. 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.

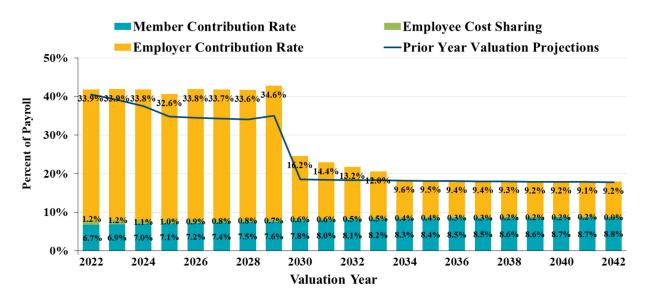


SECTION I – EXECUTIVE SUMMARY

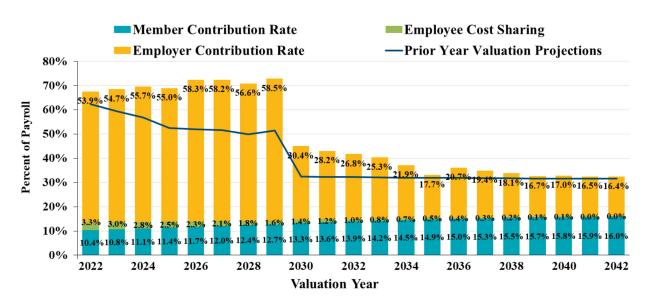
Employee contribution rates are projected to gradually increase as the PEPRA members become a larger proportion of the active member population over time. PEPRA employee contribution rates are 50% of the normal cost rate and are greater on average than for the legacy plans. However, the employee cost-sharing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



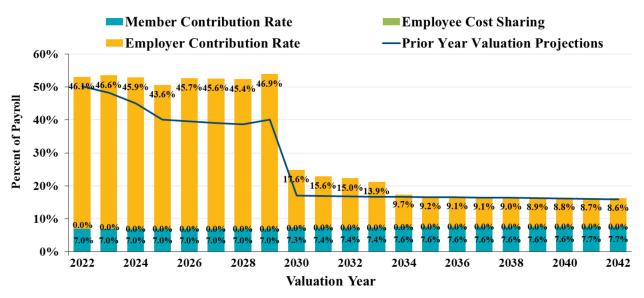
Safety Member Group





SECTION I – EXECUTIVE SUMMARY

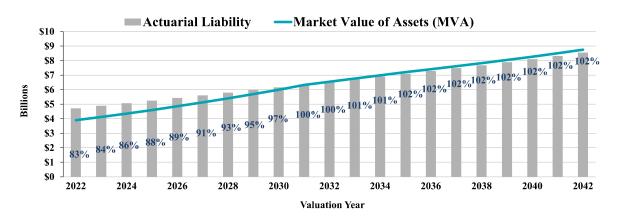
APCD Member Group



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, 2022 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 2031, 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, 2012 through June 30, 2022. Over the last 10 years, the UAL has decreased by approximately \$11 million. The net liability gains (gray bar) of \$49 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 \$207 million have all decreased the UAL since June 30, 2012. The investment losses (gold bar) of \$133 million on the Actuarial Value of Assets (AVA) and the assumptions changes (purple bar) of \$245 million resulting in a total UAL increase of \$378 million are the primary offsets to the UAL reduction sources.

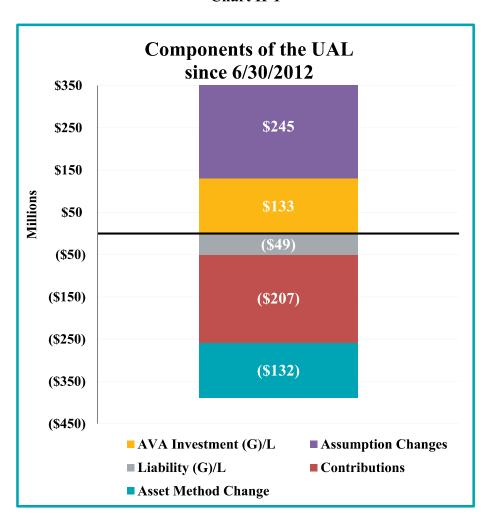


Chart II-1



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.

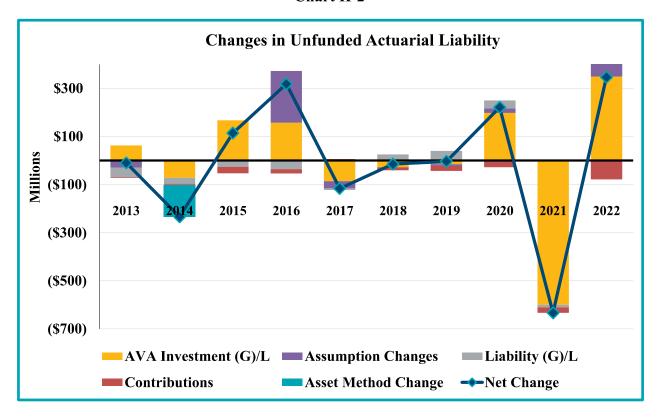


Chart II-2

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 7.3%. Actuarial losses were greater than the gains over the period, primarily due to the market performance in FYE 2022 of -1.8% as well as the market performance in FYE 2015, 2016, and 2020 with actual returns between 0.8% - 1.3% during those years. Asset returns during the noted years were well below the assumed rate of return of 7.5% or 7.0%.

Over the same period, the assumed rate of return decreased from 7.75% to 7.00%. It is important to note that these changes simply reflect a downward revision to the estimate of future investment earnings and ultimately costs will be determined by actual investment earnings. At the time of the 2022 Actuarial Experience study, using RVK's capital market assumptions as of January 2022 and the Plan's asset allocation, the expected average annual return was about 5.7% compared to the Plan's current assumption of 7.00%. Since that time, rising interest rates combined with reduced price/earnings ratios have led to capital market assumptions being



SECTION II – DISCLOSURES RELATED TO RISK

revised upward by many investment consultants. Future expectations of investment returns are currently extremely volatile.

The impact of all assumption changes is represented by the purple bars and in some years also included decreases in mortality rates and longevity improvements projected in the future, which had a significant impact on the measurement of the UAL. The assumption changes effective with the July 1, 2019 and July 1, 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 July 1, 2016 valuation.

Each year the UAL is expected to increase for 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 more substantially, by about \$205 million during the nine-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					
2013	\$62,682,000	(\$40,274,000)	(\$29,264,000)	(\$2,758,000)	(\$9,614,000)					
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					
Total	\$132,623,000	(\$48,700,000)	\$112,672,000	(\$207,419,000)	(\$10,824,000)					

¹ Asset Method Change from Actuarial Value to Market Value



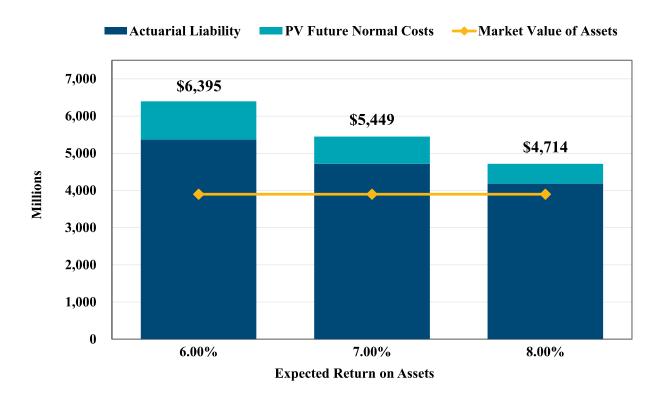
SECTION II – DISCLOSURES RELATED TO RISK

Assessing Costs and Risks

Sensitivity to Investment Returns

The chart below compares assets to the present value of all projected future benefits discounted at the current expected rate of return and at investment returns 100 basis points above and below the expected rate of return. The present value of future benefits is shown as a bar with the portion attributable to past service in dark blue (Actuarial Liability) and the portion attributable to future service in teal (Present Value of Future Normal Costs). The gold line shows the Market Value of Assets.

Present Value of Future Benefits versus Assets



If investments return 7.00% annually, the Plan would need approximately \$5.4 billion in assets today to pay all projected benefits compared to current assets of \$3.9 billion. If investment returns are only 6.00%, the Plan would need approximately \$6.4 billion in assets today, and if investment returns are 8.00%, the Plan would need approximately \$4.7 billion in assets today.

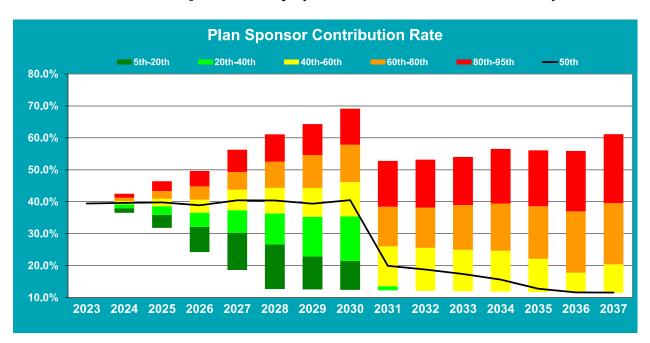


SECTION II – DISCLOSURES RELATED TO RISK

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.

Stochastic Projection of Employer Contributions as a Percent of Pay

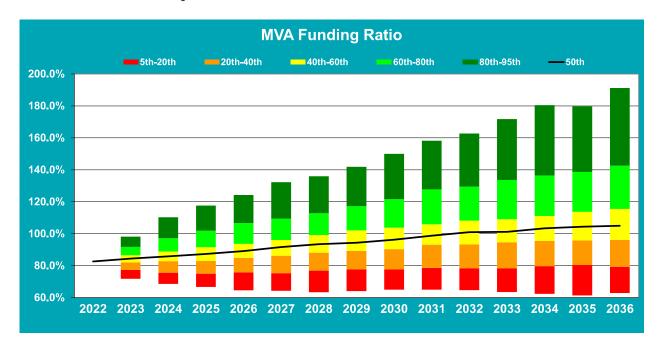


The stochastic projection of employer contributions as a percent of pay shows the probable range of future contribution rates. The baseline contribution rate (black line), which represents the median of the simulations using an average return of 7.00%, aligns closely with the projections discussed in 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 2030. Conversely, in the most optimistic scenario shown, the 5th percentile, the projected employer contribution rate declines to about 12% in 2035 (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).



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 over 75% of their total employer contribution rate.



SECTION II – DISCLOSURES RELATED TO RISK

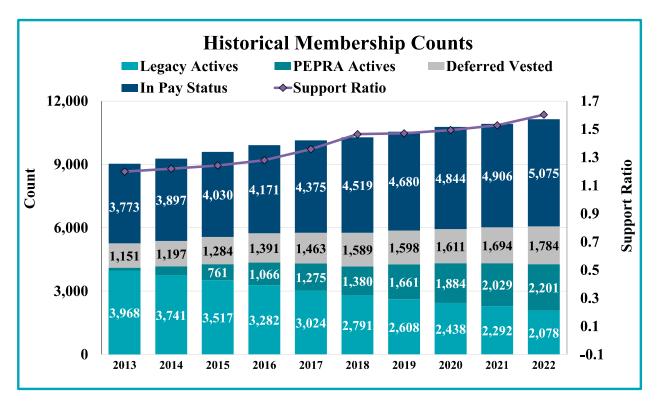
Plan Maturity Measures

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 2013 to 2022 as the number of active members has increased by only 4%, while the number of inactives has increased by almost 40%.



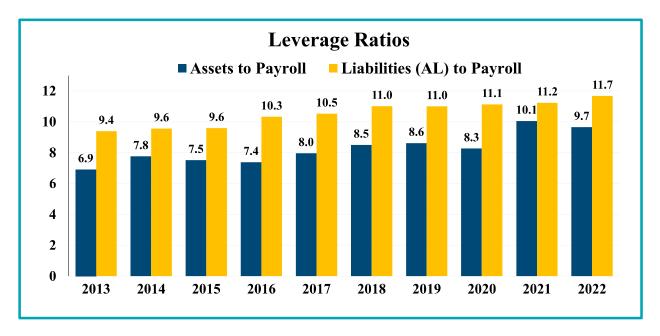


SECTION II – DISCLOSURES RELATED TO RISK

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 2013.



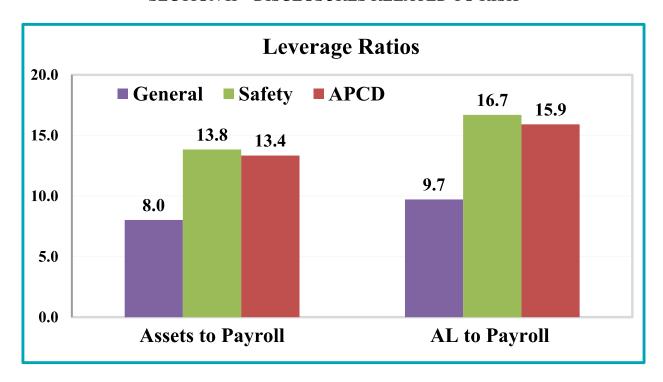
To appreciate the impact of the ratio of assets to payroll on plan cost, consider the situation for a new plan with almost no assets. Even if the assets suffer a bad year of investment returns, the impact on the plan cost is nil, because the asset level is so small.

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 9.7 to 11.7 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 the highest leverage ratios mainly because their support ratio – inactives to actives – is significantly higher (2.8 compared to 1.6 for both General and 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 and 13.0 respectively would be equivalent to 238% of payroll and 221% of payroll respectively. The Safety contribution rate would ultimately increase by approximately 23% of pay and the APCD contribution rate would increase by about 21% 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, 2021 and June 30, 2022,
- 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, 2021 and June 30, 2022.



SECTION III – ASSETS

Table III-1 Statement of Assets at Market Value							
Assets:		June 30, 2021		June 30, 2022			
Cash and Cash Equivalents	\$	19,177,461	\$	27,858,581			
Prepaid Expenses		3,401,681		5,875,751			
Receivables:							
Contributions Receivable		8,979,609		10,328,573			
Other		5,729		0			
Accrued Interest		2,144,876		2,596,323			
Dividends		3,812,499		4,184,490			
Security Sales Pending	_	24,096,551	_	5,622,088			
Total Receivables	\$	39,039,263	\$	22,731,474			
Investments, at Market Value:							
Short Term Investments		49,391,307		53,503,207			
Private Equity		493,545,704		536,428,714			
Domestic Equity		761,791,076		647,512,605			
Core Fixed Income		592,979,451		605,500,025			
International Equity		406,768,226		340,188,189			
Emerging Market Equity		318,036,546		247,858,317			
Non-Core Fixed Income		287,020,437		253,407,879			
Real Estate		348,686,571		450,075,726			
Real Assets/Real Return		604,896,283		617,702,698			
Private Credit	_	90,111,102	_	116,140,372			
Total Investments	\$	3,953,226,704	\$	3,868,317,731			
Other Assets:							
Collateral Held for Securities Lent		13,608,587		27,506,358			
Total Assets	\$	4,028,453,696	\$	3,952,289,895			
Liabilities:							
Accounts Payable		685,673		687,000			
Benefits Payable		14,082,834		15,301,654			
Collateral Held for Securities Lent		13,608,587		27,506,358			
Other Payables		0		0			
Security Purchases Pending		9,177,844		11,952,289			
Total Liabilities	\$	37,554,937	\$	55,447,301			
Market Value of Assets	\$	3,990,898,759	\$	3,896,842,594			



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, 2021 and June 30, 2022.

Table III-2 Changes in Market Values							
		Fiscal Year ending		Fiscal Year ending			
Additions		June 30, 2021		June 30, 2022			
Contributions							
Employer's Contribution	\$	150,093,122	\$	161,387,880			
Members' Contributions		35,520,188		36,564,382			
Total Contributions	\$	185,613,310		197,952,261			
Net Investment Income							
Net Appreciation/(Depreciation) in							
Fair Value of Investments	\$	801,307,683	\$	(88,162,207)			
Interest		9,885,489		10,745,225			
Dividends		26,586,474		31,505,756			
Investment Expense		(15,434,278)		(25,001,408)			
Net Investment Income	\$	822,345,368	\$	(70,912,634)			
Securities Lending Income							
Securities Lent Income	\$	96,519	\$	102,432			
Securities Lent Expense		81,392		65,262			
Net Securities Lending Income	\$	177,911	\$	167,694			
Miscellaneous Income	\$	184,127	\$	215,002			
Total Additions	\$	1,008,320,717	\$	127,422,323			



SECTION III – ASSETS

Table III-2 **Changes in Market Values (Continued)** Fiscal Year ending Fiscal Year ending June 30, 2021 June 30, 2022 **Deductions** Benefit payments \$ 204,081,066 \$ 213,237,375 Refunds of Members' Contributions 1,578,030 2,079,048 **Total Benefit Payments** \$ 205,659,096 \$ 215,316,423 Administrative & Other Expenses 5,010,553 5,518,981 \$ General Administrative Expenses \$ 158,483 144,110 **Actuary Fees** Fund Legal Fees 525,790 498,974 Total Administrative & Other \$ 5,694,827 \$ 6,162,065 **Expenses Total Deductions** \$ 211,353,922 \$ 221,478,488 Net increase (Decrease) \$ 796,966,794 (94,056,165)\$ Net Assets Held in Trust for Pension Benefits Beginning of Year 3,193,931,965 3,990,898,759 \$ \$ End of Year \$ 3,990,898,759 \$ 3,896,842,594 \$ 222,689,553 \$ 278,553,422 **Expected Return** 822,707,406 Actual Return (70,529,938)Actuarial Gain/(Loss) \$ 600,017,853 (349,083,359)7.00% **Expected Return** 7.00% 25.9% Approximate Return -1.8%



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 first three 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, 2021 and June 30, 2022						
		FYE 2021		FYE 2022		
Member Deposit Reserve	\$	254,026,093	\$	271,862,322		
County and District Advance Reserve		1,191,326,579		1,238,871,872		
Retired Member Reserve		2,896,720,575		3,108,080,919		
Transferred Funds Reserve		235,261,805		252,018,327		
	\$	4,577,335,053	\$	4,870,833,440		
New Market Stabilization Reserve		0		0		
Contra Tracking Account		(586,436,294)		(973,990,846)		
Total Reserves	\$	3,990,898,759	\$	3,896,842,594		



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 2003.

Table III-4 Net Return on Assets vs. Increase in Consumer Price Index						
Year Ended June 30	Net Return at Market Value	Increase in Consumer Price Index ¹				
2003	4.6%	2.1%				
2004	15.7%	3.3%				
2005	9.9%	2.5%				
2006	10.6%	4.3%				
2007	16.6%	2.7%				
2008	-7.2%	5.0%				
2009	-19.20%	-1.4%				
2010	13.40%	1.1%				
2011	21.10%	3.6%				
2012	1.80%	1.7%				
2013	8.10%	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%				
Geometric Avera	ge					
5-Year	7.7%	3.9%				
10-Year	7.3%	2.6%				
20-Year	6.7%	2.5%				

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 their 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, 2022 (in thousands)									
		(General		Safety		APCD		Total
1.	Member Deposit Reserve	\$	198,008	\$	74,045	\$	(191)	\$	271,862
2.	County and District Advance Reserve		836,806		395,817		6,248		1,238,871
3.	Retired Member Reserve		1,747,253		1,309,082		51,746		3,108,081
4.	Transferred Funds Reserve		130,344	_	119,028		2,647		252,019
5.	Total Valuation Reserves $(1+2+3)$	\$ 2	2,912,411	\$	1,897,972	\$	60,450	\$	4,870,833
6.	Percentage of Line 5, by Plan		59.79%		38.97%		1.24%		100.0%
7.	Market Value of Assets								3,896,843
8.	Allocated Market Value of Assets	\$ 2	2,330,035	\$	1,518,446	\$	48,362	\$	3,896,843



SECTION IV – LIABILITIES

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

- **Disclosure** of System liabilities at June 30, 2021 and June 30, 2022,
- 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

P	Present	rt Value of Futur	Tak re B	Table IV-1 Value of Future Benefits and Actuarial Liability	uaria	l Liability				
		۷					Ju	June 30, 2022	~	June 30, 2021
		General		Safety	1	APCD		Total		Total
Present Value of Future Benefits										
Actives	S	1,404,427	S	864,757	\$	15,151	S	2,284,335	S	2,311,991
Terminated Vested		140,196		45,979		3,506		189,681		185,768
Retirees		1,552,166		1,007,522		41,421		2,601,109		2,349,396
Disabled		54,800		134,751		0		189,551		174,156
Beneficiaries		88,679		92,321		3,330		184,330		166,158
Total Present Value of Future Benefits	8	3,240,268	\$	2,145,330	\$	63,408	\$	5,449,006	\$	5,187,468
Actuarial Liability										
Total Present Value of Benefits	∽	3,240,268	S	2,145,330	↔	63,408	∽	5,449,006	\$	5,187,468
Present Value of Future Normal Costs										
Employer Portion		256,241		202,962		3,347		462,550		469,261
Employee Portion		160,745		109,519		2,432		272,696		257,216
Actuarial Liability	8	2,823,282	S	1,832,849	∽	57,629	∽	4,713,760	↔	4,460,991
Market Value of Assets	⊗	2,330,034	∽	1,518,446	∽	48,363	↔	3,896,843	∽	3,990,899
Funded Ratio		82.5%		82.8%		83.9%		82.7%		89.5%
Unfunded Actuarial Liability/(Surplus)	8	493,248	↔	314,403	↔	9,266	↔	816,917	↔	470,092



SECTION IV – LIABILITIES

Changes in Liabilities

Each of the liabilities disclosed in the prior tables are 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 2022 Experience Gain/(Loss) (in thousands)	
		Cost
1.	Unfunded Actuarial Liability (UAL) at June 30, 2021	\$ 470,092
2.	Middle of year actuarial liability payment	(98,764)
3.	Interest to end of year on 1 and 2	29,508
4.	Assumption Changes	 76,452
5.	Expected UAL at June 30, 2022 (1+2+3+4)	\$ 477,288
6.	Actual Unfunded Liability at June 30, 2022	 816,917
7.	Net Gain/(Loss): (5 - 6)	\$ (339,629)
8.	Portion of net gain/(loss) due to:	
	a. Investment experience loss	\$ (349,083)
	b. Retiree COLAs less than expected	(10,426)
	c. More terminations that expected	(6,119)
	d. More retirements than expected	5,082
	e. Contribution timing lag and payroll less than expected	3,725
	f. Other experience	 17,192
	g. Total gain/(loss)	\$ (339,629)



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 six remaining years and the outstanding Unfunded Actuarial Liability as of June 30, 2013 over a closed period with eight 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.



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SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2022

SECTION V – CONTRIBUTIONS

	June 30, 2021	COMPOSITE	22.74%	7.42%	15.32%	<u>25.63%</u>	40.95%	-1.88%	39.07%	\$ 397,040,432
YE 2024		COMPOSITE	22.53%	7.75%	14.78%	26.45%	41.23%	-1.75%	39.48%	
for F		Ó								∽
une 30, 2022 i	, 2022	APCD	17.53%	6.97%	10.56%	35.52%	46.08%	0.00%	46.08%	\$ 3,622,151
. V-1 tion Rate as of J	June 30, 2022	Safety	33.25%	10.43%	22.82%	34.38%	57.20%	-3.26%	53.94%	\$ 109,757,206
Table V-1 Employer Contribution		General	18.49%	6.72%	11.77%	23.34%	35.11%	<u>-1.20%</u>	33.91%	\$ 290,353,001 \$ 109,757,206 \$ 3,622,151 \$ 403,732,358
Table V-1 Development of the Net Employer Contribution Rate as of June 30, 2022 for FYE 2024			1. Total Normal Cost Rate	2. Member Contribution Rate	3. Employer Normal Cost Rate (1-2)	4. UAL Amortization	5. Employer Contribution Rate (3+4)	6. Estimated Impact of Employee Cost-Sharing	7. Net Employer Contribution Rate (5+6)	Projected Payroll for FYE 2023

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



SECTION V – CONTRIBUTIONS

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 bases, since the Safety Plan 6 UAL of 6.35% is paid only for members under Safety Plan 6. Once the (Gain)/Loss and amortization policy. The total UAL payment of the System is 26.44% as a percentage of pay, which is not the sum of the individual Assumption bases are fully phased-in, the UAL payment from these sources will be 28.20% of pay. If the UAL payment below of \$103,358,959 were calculated based on a single-equivalent period with the June 30, 2022 UAL of \$816,916,928, the number of years to fully pay off the unfunded liability would be 10 years.

					Table V-2					
			Ę	Development o or the June 30,	Development of Amortization Payment For the June 30, 2022 Actuarial Valuation	ment Iuation				
Type of Base	Date Established	Initial Amount	al int	Initial Amortization Years	June 30, 2022 Outstanding Balance	Remaining Amortization Years	Current Phase-In Percentage	Amortization Amount	% of Pay²	% of Pay After Phase-In ²
1. Safety Plan 6 Base ¹	6/30/2011	\$ 12,8	12,800,000	17	\$ 8,829,170	9	N/A	\$ 1,670,736	6.72%	6.72%
2. Remaining UAL	6/30/2013	803,9	803,940,900	17	587,243,137	∞	N/A	86,432,929	22.11%	22.11%
3. (Gain)/Loss Base	6/30/2014	(227,2	(227,291,825)	19	(208,115,986)	111	100%	(27,821,873)	-7.12%	-7.12%
4. (Gain)/Loss Base	6/30/2015	137,3	137,382,857	19	132,719,653	12	100%	16,249,927	4.16%	4.16%
5. (Gain)/Loss Base	6/30/2016	117,8	117,812,662	19	118,888,297	13	100%	13,465,943	3.45%	3.45%
6. Assumption Changes	6/30/2016	215,8	215,838,077	19	217,808,689	13	100%	24,670,211	6.31%	6.31%
7. (Gain)/Loss Base	6/30/2017	(83,6	(83,693,202)	19	(87,910,622)	14	100%	(9,287,477)	-2.38%	-2.38%
8. Assumption Change	6/30/2017	(29,6	(29,683,810)	19	(31,179,620)	14	100%	(3,294,028)	-0.84%	-0.84%
9. (Gain)/Loss Base	6/30/2018	8	869,981	19	944,650	15	100%	93,730	0.02%	0.02%
10. (Gain)/Loss Base	6/30/2019	25,5	25,594,711	19	28,043,871	16	%08	2,141,773	0.55%	0.68%
11. Assumption Change	6/30/2019	(7,4	(7,455,037)	19	(8,168,410)	16	%08	(623,840)	-0.16%	-0.20%
12. (Gain)/Loss Base	6/30/2020	234,9	234,967,694	19	254,450,004	17	%09	14,317,108	3.66%	6.11%
13. Assumption Change	6/30/2020	19,1	19,124,525	19	20,710,232	17	%09	1,165,300	0.30%	0.50%
14. (Gain)/Loss Base	6/30/2021	(603,1)	(603,151,064)	19	(633,427,098)	18	40%	(23,787,279)	%60'9-	-15.22%
15. (Gain)/Loss Base	6/30/2022	339,6	339,628,618	19	339,628,618	19	20%	6,502,131	1.66%	8.32%
16. Assumption Change	6/30/2022	76,4	76,452,344	19	76,452,344	19	20%	1,463,667	0.37%	1.87%
Total					\$ 816,916,928			\$ 103,358,959	26.45%	28.21%

Original amortization base for increase in benefits established in 630/2007 with a 15-year period. In 2011, the outstanding balance was re-amortized over a closed 17-year period.

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



SECTION V - CONTRIBUTIONS

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) General				
			De	Development of Amortization Payment For the June 30, 2022 Actuarial Valuation	rtization Payme Actuarial Valua	ent ition			
	Type of Base	Date Established	Initial Amortization Years	June 30, 2022 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	\$ 366,041,363	~	N/A	\$ 53,875,516	19.17%	19.17%
5.	(Gain)/Loss Base	6/30/2014	19	(120,926,519)	11	100%	(16,165,996)	-5.75%	-5.75%
3.	(Gain)/Loss Base	6/30/2015	19	84,018,338	12	100%	10,287,036	3.66%	3.66%
4.	(Gain)/Loss Base	6/30/2016	19	74,772,812	13	100%	8,469,180	3.01%	3.01%
5.	Assumption Changes	6/30/2016	19	140,609,514	13	100%	15,926,208	5.67%	5.67%
9.	(Gain)/Loss Base	6/30/2017	19	(54,831,486)	14	100%	(5,792,772)	-2.06%	-2.06%
7.	Assumption Change	6/30/2017	19	(19,555,643)	14	100%	(2,065,991)	-0.74%	-0.74%
<u>«</u>	(Gain)/Loss Base	6/30/2018	19	(4,907,893)	15	100%	(486,972)	-0.17%	-0.17%
9.	(Gain)/Loss Base	6/30/2019	19	11,891,250	16	%08	908,161	0.32%	0.40%
10.	Assumption Change	6/30/2019	19	19,784,068	16	%08	1,510,953	0.54%	0.67%
11.	(Gain)/Loss Base	6/30/2020	19	151,757,226	17	%09	8,538,906	3.04%	2.06%
12.	Assumption Change	6/30/2020	19	15,370,318	17	%09	864,840	0.31%	0.51%
13.	(Gain)/Loss Base	6/30/2021	19	(380,962,291)	18	40%	(14,306,392)	-5.09%	-12.72%
14.	(Gain)/Loss Base	6/30/2022	19	200,591,659	19	20%	3,840,293	1.37%	6.83%
15.	Assumption Change	6/30/2022	19	9,595,217	19	20%	183,699	0.07%	0.33%
	Total			\$ 493,247,933			\$ 65,586,668	23.34%	23.87%

¹ Includes explicit administrative expense load.



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SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2022

SECTION V - CONTRIBUTIONS

			De	Table V-2(b) Safety Development of Amortization Payment For the June 30, 2022 Actuarial Valuation	(b) Safety ortization Paym ? Actuarial Valu	ent ation			
	Type of Base	Date Established	Initial Amortization Years	June 30, 2022 Outstanding Balance	Remaining Amortization Years	Current Phase-In Percentage	Amortization Amount	% of Pay²	% of Pay After Phase-In²
_;	Safety Plan 6 Base ¹	6/30/2011	17	\$ 8,829,170	9	N/A	\$ 1,670,736	6.72%	6.72%
5.	Remaining UAL	6/30/2013	17	213,987,828	∞	N/A	31,495,634	29.64%	29.64%
3.	(Gain)/Loss Base	6/30/2014	19	(84,832,079)	11	100%	(11,340,730)	-10.67%	-10.67%
4.	(Gain)/Loss Base	6/30/2015	19	46,777,289	12	100%	5,727,317	5.39%	5.39%
5.	(Gain)/Loss Base	6/30/2016	19	43,947,477	13	100%	4,977,733	4.68%	4.68%
9.	Assumption Changes	6/30/2016	19	74,592,364	13	100%	8,448,742	7.95%	7.95%
7.	(Gain)/Loss Base	6/30/2017	19	(31,114,801)	14	100%	(3,287,180)	-3.09%	-3.09%
∞ •	Assumption Change	6/30/2017	19	(11,249,396)	14	100%	(1,188,463)	-1.12%	-1.12%
9.	(Gain)/Loss Base	6/30/2018	19	4,970,877	15	100%	493,221	0.46%	0.46%
10.	(Gain)/Loss Base	6/30/2019	19	14,488,503	16	%08	1,106,519	1.04%	1.30%
11.	Assumption Change	6/30/2019	19	(28,506,972)	16	%08	(2,177,141)	-2.05%	-2.56%
12.	(Gain)/Loss Base	6/30/2020	19	99,597,555	17	%09	5,604,044	5.27%	8.79%
13.	Assumption Change	6/30/2020	19	5,247,902	17	%09	295,283	0.28%	0.46%
14.	(Gain)/Loss Base	6/30/2021	19	(243,825,527)	18	40%	(9,156,454)	-8.62%	-21.54%
15.	(Gain)/Loss Base	6/30/2022	19	135,019,766	19	20%	2,584,930	2.43%	12.16%
16.	Assumption Change	6/30/2022	19	66,473,013	19	20%	1,272,614	1.20%	<u>5.99%</u>
	Total			\$ 314,402,969			\$ 36,526,807	34.38%	39.42%

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.

SECTION V - CONTRIBUTIONS

				Table V-2(c) APCD	c) APCD				
			De For	Development of Amortization Payment For the June 30, 2022 Actuarial Valuation	ortization Payme Actuarial Valua	ent ition			
		Date	Initial Amortization	June 30, 2022 Outstanding	Remaining Amortization	Current Phase-In	Amortization	% of	% of Pay After
	Type of Base	Established	Years	Balance	Years	Percentage	Amount	Pay^1	Phase-In ¹
_ :	Remaining UAL	6/30/2013	17	\$ 7,213,946	~	N/A	\$ 1,061,779	30.28%	30.28%
7.	(Gain)/Loss Base	6/30/2014	19	(2,357,389)	11	100%	(315,146)	-8.99%	-8.99%
3.	(Gain)/Loss Base	6/30/2015	19	1,924,026	12	100%	235,574	6.72%	6.72%
4.	(Gain)/Loss Base	6/30/2016	19	168,008	13	100%	19,030	0.54%	0.54%
5.	Assumption Changes	6/30/2016	19	2,606,811	13	100%	295,262	8.42%	8.42%
9.	(Gain)/Loss Base	6/30/2017	19	(1,964,335)	14	100%	(207,526)	-5.92%	-5.92%
7.	Assumption Change	6/30/2017	19	(374,582)	14	100%	(39,573)	-1.13%	-1.13%
<u>«</u>	(Gain)/Loss Base	6/30/2018	19	881,667	15	100%	87,481	2.49%	2.49%
9.	(Gain)/Loss Base	6/30/2019	19	1,664,117	16	%08	127,092	3.62%	4.53%
10.	Assumption Change	6/30/2019	19	554,494	16	%08	42,348	1.21%	1.51%
11.	(Gain)/Loss Base	6/30/2020	19	3,095,223	17	%09	174,159	4.97%	8.28%
12.	Assumption Change	6/30/2020	19	92,012	17	%09	5,177	0.15%	0.25%
13.	(Gain)/Loss Base	6/30/2021	19	(8,639,280)	18	40%	(324,434)	-9.25%	-23.13%
14.	(Gain)/Loss Base	6/30/2022	19	4,017,193	19	20%	76,908	2.19%	10.97%
15.	Assumption Change	6/30/2022	19	384,114	19	20%	7,354	0.21%	$\frac{1.05\%}{}$
	Total			\$ 9,266,026			\$ 1,245,485	35.52%	35.88%

¹ Includes explicit administrative expense load.



SECTION V – CONTRIBUTIONS

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; six 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	Rate	es
June 30, 2022 Plan 6 Outstanding Balance	\$	8,829,170
6-year amortization factor		0.189229
Safety Plan 6 closed payroll	\$	25,659,110
Middle of year payment		1,670,736
Extra Plan 6 UAL Amortization Rate		6.51%
- including Administrative Expense Load		6.72%
Safety UAL less Extra Plan 6	\$	305,573,799
Middle of year payment		34,856,071
Total Safety Payroll		109,757,206
UAL Rate without Extra Plan 6		31.76%
- including Administrative Expense Load		32.81%
UAL Rate - Plan 6 including Admin Expense Load		39.53%



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.

Table V-4 Development of the General Net Employer Contribution Rate as of June 30, 2022 for FYE 2024 (Prior to Cost-Sharing)	oloyer Contri	Table V-4 bution Rate as	-4 is of June 30,	2022 for FY	E 2024 (Pric	or to Cost-Sh	aring)	
	5A	5B	2C	Plan 2	Plan 7	PEPRA 2% COLA 3% COLA ¹	RA 3% COLA ¹	Total
Current Year A. Basic Employer Normal Cost Rate B. COLA Normal Cost Rate	9.58% 4.22%	8.54% 5.13%	10.93%	$\frac{3.32\%}{0.00\%}$	$\frac{12.73\%}{3.65\%}$	7.02% 1.47% 9.40%	7.30% $2.05%$	8.67% 3.10%
D. Basic UAL Contribution Rate E. COLA UAL Contribution Rate	15.90% $15.90%$ $7.44%$	15.90%	15.90% $7.44%$	$\frac{5.52.0}{15.90\%}$	15.90% $7.44%$	15.90%	15.90%	15.90%
F. UAL Contribution RateG. Total June 30, 2022 Contribution Rate (C+F)	23.34% 37.14%	23.34% 37.01%	23.34% 38.93%	23.34% 26.66%	23.34% 39.72%	23.34% 31.83 %	23.34% 32.69%	23.34% 35.11%
Projected Payroll for FYE 2023 (in thousands)	\$ 22,640	\$ 38,102	\$ 75,687	\$ 328	\$ 11,435	\$ 133,671	\$ 8,489	\$ 290,353
Prior Year A. Basic Employer Normal Cost Rate B. COLA Normal Cost Rate C. Employer Normal Cost Rate	10.11% 4.49% 14.60%	9.15% <u>5.42%</u> 14.57%	11.41% 4.91% 16.32%	3.64% 0.00% 3.64%	12.76% 3.51% 16.27%	7.01% 1.40% 8.41%	7.40% 2.12% 9.52%	9.09% 3.33% 12.42%
 D. Basic UAL Contribution Rate E. COLA UAL Contribution Rate F. UAL Contribution Rate G. Total June 30, 2021 Contribution Rate (C+F) Projected Payroll for FYE 2022 (in thousands) 	15.93% 7.02% 22.95% 37.55% \$ 27,063	15.93% 7.02% 22.95% 37.52% \$ 37,540	15.93% 7.02% 22.95% 39.27% \$ 80,361	15.93% 7.02% 22.95% 26.59% \$	15.93% 7.02% 22.95% 39.22% \$ 11,683	15.93% 7.02% 22.95% 31.36% \$ 119,855	15.93% 7.02% 22.95% 32.47% \$ 6,621	15.93% 7.02% 22.95% 35.37% \$ 283,504

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. For the June 30, 2022 valuation, there are two new UAL payments for the 2022 actuarial loss and assumption change of 1.44% of payroll for the General group. However, the methodology to calculate LAFCO's portion of this new UAL payment has not been determined yet and their actual UAL payment for FYE 2024 will be communicated under a separate letter.



SECTION V - CONTRIBUTIONS

Table V-5 Development of the Safety Net Employer Contribution Rate as of June 30, 2022 for FYE 2024 (Prior to Cost Sharing)	Contributic	Tabl	Table V-5 1 Rate as of Ju	ine 30,	2022 fo	r FYE 202.	4 (Pri	or to Cos	t Sharing)	
	44		4B	4C	ט	6A		6B	PEPRA	Total
Surrent Year										
A. Basic Employer Normal Cost Rate	19.17%	, 0	20.02%	<u>`</u>	17.90%	20.88%		19.55%	11.52%	15.69%
B. COLA Normal Cost Rate	9.27%	, 0	10.69%	33,	8.84%	9.76%		9.93%	4.07%	7.13%
C. Employer Normal Cost Rate	28.44%	0,	30.71%	7	26.74%	30.64%	•	29.48%	15.59%	22.82%
D. Basic UAL Contribution Rate	20.64%	0	20.64%	7	20.64%	24.87%		24.87%	20.64%	21.63%
E. COLA UAL Contribution Rate	12.17%	<u>_0</u>	12.17%		12.17%	14.66%		14.66%	12.17%	12.75%
F. UAL Contribution Rate	32.81%	0	32.81%	33	32.81%	39.53%		39.53%	32.81%	34.38%
G. Total June 30, 2022 Contribution Rate (C+F)	61.25%	, o	63.52%	56	59.55%	70.17%		69.01%	48.40%	57.20%
Projected Payroll for FYE 2023 (in thousands)	\$ 3,041	\$	1,650	\$ 3%	32,051	\$ 1,180	S	24,479	\$ 47,356 \$	109,757
Prior Year A. Basic Employer Normal Cost Rate	18.84%	vo	21.87%	, ,	17.69%	20.73%		19.31%	11.27%	15.80%
B. COLA Normal Cost Rate	8.82%	\ 0	10.92%	30,	8.65%	9.27%		9.65%	3.95%	7.16%
C. Employer Normal Cost Rate	27.66%	0,	32.79%	7	26.34%	30.00%		%96.87	15.22%	22.96%
D. Basic UAL Contribution Rate	19.92%	0	19.92%	15	19.92%	23.61%		23.61%	19.92%	20.92%
E. COLA UAL Contribution Rate	10.80%	⊘ I	10.80%	=	10.80%	12.80%	·	12.80%	10.80%	11.32%
F. UAL Contribution Rate	30.72%	, 0	30.72%	3	30.72%	36.41%		36.41%	30.72%	32.24%
G. Total June 30, 2021 Contribution Rate (C+F)	W		63.51%		57.06%	9	•	_	45.94%	55.20%
rrojected rayron for fix 2022 (in thousands)	4,102	•	1,/90	ر. م	55,65	2,383	<u>^</u>	70,909	a 41,403 a	109,901



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SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2022

SECTION V - CONTRIBUTIONS

Table V-6 Development of the APCD Net Employer Contribution Rate as of June 30, 2022 for FYE 2024 (Prior to Cost Sharing)	Table V-6	. V-6 e as of J	une 3	30, 2022 for	FY	E 2024 (Prio	r to Cost	Shar	ing)
		Plan 1		Plan 2		Plan 7		PEPRA		Total
Current Year								- - - - - -		
A. Basic Employer Normal Cost Rate		6.85%		7.67%		12.75%		5.87%		7.56%
B. COLA Normal Cost Rate		3.57%		5.18%		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		11.99%		11.99%		11.99%		11.99%		11.99%
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	↔	1,089	∽	454	S	1,761	S	3,622
Prior Year										
A. Basic Employer Normal Cost Rate		10.32%		7.90%		12.76%		5.86%		8.12%
B. COLA Normal Cost Rate		4.73%		5.40%		3.51%		1.23%		3.26%
C. Employer Normal Cost Rate		15.05%		13.30%		16.27%		7.09%		11.38%
D. Basic UAL Contribution Rate		23.02%		23.02%		23.02%		23.02%		23.02%
E. COLA UAL Contribution Rate		10.65%		10.65%		10.65%		10.65%		10.65%
F. UAL Contribution Rate		33.67%		33.67%		33.67%		33.67%		33.67%
G. Total June 30, 2021 Contribution Rate (C+F)		48.72%		46.97%		49.94%		40.76%		45.05%
Projected Payroll for FYE 2022 (in thousands)	\$	496	S	1,059	S	419	S	1,601	S	3,575



SECTION V – CONTRIBUTIONS

Table V-7 Development of the PEPRA Member and Net Employer Contribution Rates as of June 30, 2022 for FYE 2024

General 2% COLA 3% COLA Safety **APCD** Current Year Basic Member Contribution Rate 7.01% 7.30% 11.52% 5.87% **COLA Member Contribution Rate** 1.47% 2.05% 4.07% 1.28% **Member Contribution Rate** 8.48% 9.35% 15.59% 7.15% Basic Employer Normal Cost Rate 7.30% 11.52% 5.87% 7.02% **COLA Employer Normal Cost Rate** 1.47% 2.05% 4.07% 1.28% **Employer Normal Cost Rate** 7.15% 8.49% 9.35% 15.59% **Basic UAL Contribution Rate** 15.90% 15.90% 20.64% 23.53% **COLA UAL Contribution Rate** 11.99% 12.17% 7.44% 7.44% **Employer UAL Contribution Rate** 23.34% 23.34% 32.81% 35.52% 31.83% 32.69% 48.40% 42.67% **Employer Contribution Rate** Prior Year **Basic Member Contribution Rate** 7.00% 7.41% 11.27% 5.86% **COLA Member Contribution Rate** 1.23% 2.10% 1.40% 3.95% **Member Contribution Rate** 8.40% 9.51% 15.22% 7.09% Basic Employer Normal Cost Rate 7.01% 7.40% 11.27% 5.86% **COLA Employer Normal Cost Rate** 1.40% 2.12% 3.95% 1.23% **Employer Normal Cost Rate** 8.41% 9.52% 15.22% 7.09% **Basic UAL Contribution Rate** 15.93% 15.93% 19.92% 23.02% **COLA UAL Contribution Rate** 7.02% 7.02% 10.80% 10.65% Employer UAL Contribution Rate 22.95% 22.95% 30.72% 33.67% **Employer Contribution Rate** 31.36% 32.47% 45.94% 40.76%



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, 2022.

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	ole VI-1			
		SCHED	ULE OF FUNDI	ED LIABILITII n thousands)	ES BY TYP	E	
	(A)	(B)	(C) Remaining	n thousands)		Portion of Actu	arial
Valuation	Active	Retirees	Active			Liabilities Cov	
Date June 30,	Member Contributions	And Beneficiaries	Members' Liabilities	Reported Assets ¹	(A)	by Reported As (B)	ssets (C)
2022	\$ 271,862			\$ 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%
2013	171,614	1,747,430	1,049,090	2,150,006	100%	100%	22%

 $^{^{}I}$ 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 is 7.00%. As of June 30, 2013, the assumed rate of investment return was reduced from 7.75% to 7.50%.



SECTION VI – ANNUAL COMPREHENSIVE FINANCIAL REPORTING INFORMATION

Table VI-2 ACTUARIAL ANALYSIS OF FINANCIAL EXPERIENCE (dollars in thousands)	£	
Unfunded Actuarial Liability (UAL) as of June 30, 2021	\$	470,092
Expected Change in UAL Assumption Changes Actuarial (Cains) on Lagres During the Veer		(69,255) 76,452
Actuarial (Gains) or Losses During the Year Asset Return (Greater) or Less than Expected Salary Increases Greater or (Less) than Expected All Other (Including Demographic Experience)	\$	349,083 2,521 (11,976)
Total Changes	\$	346,825
Unfunded Actuarial Liability (UAL) as of June 30, 2022	\$	816,917

			Table VI-3 e of Funding P ollars in thousands			
Actuarial Valuation Date	Actuarial Value of Assets ¹	Actuarial Liability (AL)	Unfunded AL	Funded Ratio	Covered Payroll	Unfunded AL as a % of Covered Payroll
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%
June 30, 2013	2,150,006	2,968,134	818,128	72.4%	316,177	258.8%

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, 2022. 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

As of June 30, 2021 and 2022	2021	2022
Members Now Receiving Benefits		
Service Retirement	4,002	4,139
Disability Retirement	285	285
Beneficiaries and Survivors	619	651
Subtotal	4,906	5,075
Active Members		
Active Vested Members	3,122	3,049
Active Nonvested Members	1,199	1,230
Subtotal	4,321	4,279
Deferred Vested and Inactive Members	1,694	1,784
Total Membership	10,921	11,138

	Schedu	le of Avera	schedule of Average Benefit Payments	Payments			
			Years	Years of Service Credit	redit		
June 30, 2022	0-4	6- 9	10-14	15-19	20-24	25-29	30+
Average Monthly Benefit	\$854	\$1,393	\$2,086	\$3,112	\$4,222	\$5,906	\$8,170
Average Annual Benefit	10,248	16,716	25,032	37,344	50,664	70,872	98,040
Number of Members in Pay Status	429	805	1,027	758	681	995	806



APPENDIX A – MEMBERSHIP INFORMATION

Schedule of Active Member Valuation Data

Valuation Date	Plan	Active Members	An	Annual Salarv ¹	Average	% Increase in Average Salary
June 30, 2022	General	3,321	S	281,864,557	\$ 84,873	•
	Safety	925		104,730,974	113,223	3.35%
	APCD	33		3,461,291	104,888	4.41%
	Total	4,279	S	390,056,822	91,156	2.54%

'Based on salary data provided in the June 30, 2022 valuation data for FYE 2022.



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SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2022

APPENDIX A – MEMBERSHIP INFORMATION

	Schedule	of R	Schedule of Retirees & B	eneficiari	es A	Added to an	nd Remov	Beneficiaries Added to and Removed from Retirement Payroll	ement Payroll		
	Ado	ded	Added to rolls	Remove	d fr	Removed from rolls	Rolls a	Rolls at end of year			
			Annual			Annual		Annual	% Increase in	A v	Average
Fiscal Year	Number	•	Allowance ¹	Number	A	Allowance	Number	Allowance	Allowance	All	Allowance
2012	226	S	9,082,861	-106	S	2,884,973	3,507	\$ 118,545,000	7.6%	S	33,802
2013	364^{2}	↔	8,811,248	86-	∽	1,787,108	3,773	\$ 126,691,263	%6.9	\$	33,578
2014	203	\$	6,842,058	-79	∽	2,112,523	3,897	\$ 132,766,493	4.8%	S	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	S	2,534,190	4,171	\$ 149,683,889	%0.9	\$	35,886
2017	314	S	13,124,187	-110	S	3,255,813	4,375	\$ 162,510,138	8.6%	S	37,146
2018	270	S	10,896,350	-126	S	3,280,607	4,519	\$ 174,765,068	7.5%	S	38,673
2019	294	S	12,466,673	-133	S	4,484,686	4,680	\$ 187,679,334	7.4%	S	40,102
2020	569	\$	11,952,403	-105	\$	3,671,844	4,844	\$ 201,478,012	7.4%	S	41,593
2021	208	⇔	8,791,425	-146	S	5,740,837	4,906	\$ 208,961,900	3.7%	\$	42,593
2022	320	S	15,793,183	-151	S	5,131,256	5,075	\$ 225,793,228	8.1%	S	44,491

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



² Includes 119 new records for members with benefits in more than one plan. Previously these members had only one record that accounted for their total benefit.

APPENDIX A – MEMBERSHIP INFORMATION

SBCERS	Member	ship - Active M	Iembers as o	of June 30,	2022
				Average Monthly	Average Vesting
Group	Count	Annual Salary ¹	Average Age	Salary ¹	Service
General Members					
Plan 2	4	\$317,000	60.8	\$6,604	31.5
Plan 5A	235	\$21,887,000	57.3	\$7,761	29.3
Plan 5B	287	\$36,785,000	51.8	\$10,681	18.6
Plan 5C	937	\$73,079,000	50.5	\$6,499	18.2
Plan 7	104	\$11,011,000	45.4	\$8,823	13.6
PEPRA	<u>1,754</u>	\$138,785,000	39.6	\$6,594	4.0
Total	3,321	\$281,865,000	45.2	\$7,073	11.4
APCD Members					
Plan 1	3	\$308,000	58.7	\$8,556	32.3
Plan 2	8	\$1,049,000	43.3	\$10,927	13.0
Plan 7	3	\$438,000	45.0	\$12,167	17.7
PEPRA	<u>19</u>	\$1,666,000	33.8	\$7,307	4.2
Total	33	\$3,461,000	39.4	\$8,741	10.1
Safety Members					
Plan 4A	20	\$2,923,000	52.9	\$12,179	21.7
Plan 4B	11	\$1,586,000	50.5	\$12,015	22.7
Plan 4C	253	\$30,805,000	46.5	\$10,147	18.4
Plan 6A	9	\$1,396,000	57.4	\$12,926	29.9
Plan 6B	204	\$24,724,000	45.9	\$10,100	17.8
PEPRA	<u>428</u>	\$43,296,000	34.6	\$8,430	4.6
Total	925	\$104,731,000	41.2	\$9,435	12.1
Total Actives	4,279	\$390,057,000	44.3	\$7,596	11.6

¹Based on salary data provided in the June 30, 2022 valuation data for FYE 2022.



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, 2016	General	3,394	\$241,729,055	\$71,222	1.63%
ŕ	APCD	38	2,979,643	\$78,412	1.84%
	Safety	<u>916</u>	86,041,656	\$93,932	1.60%
	Total	4,348	\$330,750,354	\$76,070	1.41%
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%
	APCD	32	2,917,484	\$91,171	5.77%
	Safety	<u>944</u>	<u>95,991,720</u>	\$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>	<u>101,475,166</u>	\$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%

¹Based on salary data provided in the June 30, 2022 valuation data for FYE 2022.



APPENDIX A – MEMBERSHIP INFORMATION

SBCERS Membership – Deferred Vested Members as of June 30, 2022

Deferred Vested		ve Members
as of Ju	une 30, 202	22
		Average
Group	Count	Age
General Members		
Plan 2	14	61.6
Plan 5A	116	57.9
Plan 5B	393	51.7
Plan 5C	342	47.0
Plan 7	75	46.0
PEPRA	564	38.8
Total	1,504	46.1
APCD Members		
Plan 1	4	56.5
Plan 2	10	42.3
PEPRA	6	38.2
Total	20	43.9
Safety Members		
Plan 4A	4	50.8
Plan 4B	39	49.5
Plan 4C	46	44.9
Plan 6A	17	59.2
Plan 6B	68	42.0
PEPRA	86	36.0
Total	260	42.9
Total Inactives	1,784	45.6



APPENDIX A – MEMBERSHIP INFORMATION

SBCERS Membership – Retired Members as of June 30, 2022

SBCERS Me	mbership –	- Member	s in Pay Stat	us as of June 3	30, 2022
Group	Count	Average Current Age	Average Retirement Age ¹	Monthly Allowances	Average Monthly Benefit
General Members					
Plan 1	575	84.5	57.1	\$1,081,000	\$1,880
Plan 2	70	72.3	61.4	54,000	772
Plan 3	6	69.7	56.4	8,000	1,260
Plan 4A	169	79.5	59.0	443,000	2,621
Plan 4B	4	76.8	55.6	1,000	324
Plan 5A	1,833	70.3	59.4	7,283,000	3,973
Plan 5B	438	68.7	60.6	965,000	2,204
Plan 5C	610	66.9	61.8	1,449,000	2,375
Plan 7	8	62.9	60.1	9,000	1,074
Plan 8	25	64.0	62.3	22,000	870
Total	3,738	72.1	59.8	\$11,315,000	\$3,027
APCD Members					
Plan 1	57	68.9	58.5	\$234,000	\$4,107
Plan 2	16	69.3	61.2	41,000	2,572
Total	73	69.0	59.2	\$275,000	\$3,771
Safety Members					
Plan 1	254	79.0	54.5	\$1,232,000	\$4,850
Plan 2	18	77.5	53.3	41,000	2,272
Plan 3	4	70.0	55.3	17,000	4,362
Plan 4A	304	69.0	56.1	2,393,000	7,871
Plan 4B	116	68.6	56.0	393,000	3,390
Plan 4C	144	62.5	57.6	617,000	4,286
Plan 4D	2	67.0	63.0	8,000	4,211
Plan 6A	290	62.1	53.5	1,985,000	6,843
Plan 6B	130	57.2	55.4	537,000	4,134
Plan 8	2	60.0	59.7	3,000	1,307
Total	1,264	67.6	55.3	\$7,226,000	\$5,717
Total in Pay Status	5,075	70.9	60.1	\$18,816,000	\$3,708

 $^{^{\}it I}$ For healthy retired members only, excludes disabled members and beneficiaries.



APPENDIX A – MEMBERSHIP INFORMATION

SBCERS Membership - Retired Members as of June 30, 2022

	Count	Monthly Allowances	Average Monthly Benefit
General Members			
Healthy	3,162	\$10,185,000	\$3,221
Disabled	132	343,000	2,598
Beneficiaries	444	787,000	1,773
Total	3,738	\$11,315,000	\$3,027
APCD Members			
Healthy	65	\$255,000	\$3,923
Disabled	0	0	0
Beneficiaries	8	20,000	2,500
Total	73	\$275,000	\$3,771
Safety Members			
Healthy	912	\$5,808,000	\$6,368
Disabled	153	751,000	4,908
Beneficiaries	199	667,000	3,352
Total	1,264	\$7,226,000	\$5,717
Total in Pay Status	5,075	\$18,816,000	\$3,708



APPENDIX A – MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Count and Average Salary as of June 30, 2022 All Members

Count

				Ye	ears of Ser	vice				
Age	0-1	1-4	6-5	10-14	15-19	20-24	25-29	30-34	35 & Over	Total Count
Under 25	32	30		0	0	0	0	0	0	63
25-29	62	226	59	_	0	0	0	0	0	348
30-34	99	261	236	24	П	0	0	0	0	578
35-39	31	165	276	135	46		0	0	0	654
40-44	20	83	147	108	184	46	0	0	0	588
45-49	10	71	86	49	141	151	29	_	0	550
50-54	11	09	58	41	112	180	92	23	0	577
55-59	10	53	09	40	62	104	78	50	20	477
60-64	9	33	59	32	49	57	36	37	23	332
65 & Over	1	6	23	12	22	21	6	∞	7	112
Total Count	239	991	1,017	442	617	260	244	119	50	4,279



APPENDIX A – MEMBERSHIP INFORMATION

Salary

				Ye	lears of Service	vice				Average
Age	0-1	1-4	6-5	10-14	15-19	20-24	25-29	30-34	35 & Over	Salary ¹
Under 25	\$54,284	\$64,054	\$67,176	80	80	80	80	80	80	\$59,141
25-29	61,356	71,716	88,378	94,799	0	0	0	0	0	72,761
30-34	69,181	73,442	84,838	92,446	89,624	0	0	0	0	78,499
35-39	72,038	80,311	89,420	94,353	91,869	161,905	0	0	0	87,599
40-44	73,827	97,285	90,938	996,98	97,757	111,795	0	0	0	94,288
45-49	79,899	84,816	94,279	93,986	99,953	106,144	106,986	66,561	0	98,102
50-54	77,140	81,382	88,735	91,822	94,319	106,460	110,165	92,572	0	98,152
55-59	55,745	97,533	97,863	110,395	92,442	97,992	107,331	105,853	102,415	99,895
60-64	83,852	94,573	121,027	91,172	93,865	96,276	97,930	94,081	86,573	98,695
65 & Over	43,738	79,414	112,310	131,775	108,553	102,480	83,064	103,706	122,825	106,251
Average Salary ¹	\$66,430	\$66,430 \$79,247	\$91,772	\$94,408	\$96,724	\$104,154 \$106,076	\$106,076	\$99,151	\$97,985	\$91,156
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'Based on salary data provided in the June 30, 2022 valuation data for FYE 2022.



APPENDIX A – MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Count as of June 30, 2022 General Members

Count

				Ye	ears of Ser	vice				
Age	0-1	1-4	6-5	10-14	15-19	20-24	25-29	30-34	35 & Over	Total Count
Under 25	30	18	-	0	0	0	0	0	0	49
25-29	46	158	34	0	0	0	0	0	0	238
30-34	45	205	154	16	0	0	0	0	0	420
35-39	28	140	204	88	33	0	0	0	0	493
40-44	17	79	121	75	112	27	0	0	0	431
45-49	10	89	85	38	66	98	21	_	0	408
50-54	10	57	99	31	85	125	64	20	0	448
55-59	10	44	53	36	54	88	64	42	20	411
60-64	9	31	54	27	47	55	36	36	22	314
65 & Over	1	6	23	12	21	20	6	8	6	109
otal Count	203	608	785	323	451	401	194	107	48	3,321



APPENDIX A – MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Average Salary as of June 30, 2022 **General Members**

Salary

				Yes	Years of Service	vice				Average
Age	0-1	1-4	6-5	10-14	15-19	20-24	25-29	30-34	35 & Over	Salary ¹
Under 25	\$52,827	\$49,252	\$67,176	80	80	80	80	80	80	\$51,806
25-29	55,630	63,289	77,367	0	0	0	0	0	0	63,820
30-34	62,328	68,340	74,668	82,644	0	0	0	0	0	70,561
35-39	71,220	77,741	83,195	83,251	82,364	0	0	0	0	80,921
40-44	62,049	96,790	87,195	76,462	85,175	95,375	0	0	0	86,359
45-49	79,899	83,724	91,232	87,784	91,416	88,228	94,308	66,561	0	88,891
50-54	73,287	79,272	89,026	86,713	87,327	94,709	99,292	87,101	0	89,917
55-59	55,745	88,256	980,96	107,452	88,105	91,804	101,136	100,092	102,415	94,800
60-64	83,852	94,636	119,866	87,643	94,197	95,796	97,930	91,497	909,62	97,270
65 & Over	43,738	79,414	112,310	131,775	101,964	100,692	83,064	103,706	112,546	103,950
Average Salary ¹	\$62,824 \$	\$75,611		\$87,398 \$87,377		\$88,818 \$93,174	\$98,355 \$94,729	\$94,729	\$93,227	\$84,873
	1 1 . 1 .	١.	2000 HIXE 2 1 1 1 1 COOC 00	, , ,	2000					

'Based on salary data provided in the June 30, 2022 valuation data for FYE 2022.



APPENDIX A – MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Count as of June 30, 2022 Safety Members

Count

	Ţ											
	Total Coun	13	106	147	156	154	140	129	59	18	3	925
	35 & Over	0	0	0	0	0	0	0	0	_	1	2
	30-34	0	0	0	0	0	0	3	5	-	0	6
	25-29	0	0	0	0	0	∞	28	14	0	0	50
vice	20-24	0	0	0	_	19	9	55	15	7	1	158
ears of Ser	15-19	0	0	1	12	71	42	27	~	7	1	164
Ye	10-14	0	_	7	44	32	10	10	7	5	0	111
	6-9	0	23	79	72	25	12	7	9	S	0	224
	1-4	11	99	51	24	4	3	3	6	2	0	173
	0-1	2	16	6	κ	ĸ	0	-	0	0	0	34
	Age	Under 25	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 & Over	Total Count



APPENDIX A – MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Average Salary as of June 30, 2022 Safety Members

Salary

\$86,511 \$0 <t< th=""><th></th><th></th><th></th><th></th><th></th><th>Years of Service</th><th>vice</th><th></th><th></th><th></th><th>Average</th></t<>						Years of Service	vice				Average
\$76,145 \$86,511 \$0 \$0 \$0 \$0 77,819 91,550 103,708 94,799 0 0 0 103,884 93,962 103,791 111,225 89,624 0 0 0 79,674 95,953 107,059 114,912 113,048 161,905 0 0 100,730 107,068 108,763 109,336 117,624 135,129 0 0 0 109,571 112,666 117,135 120,074 129,848 140,266 0 115,673 121,485 80,590 107,660 116,330 133,167 135,017 129,042 0 142,885 113,518 131,732 121,717 125,790 135,649 156,216 0 0 0 0 0 0 0 0 887,918 \$96,436 \$106,581 \$112,530 \$118,135 \$136,034 \$150,588		0-1	1-4	6-5	10-14	15-19	20-24	25-29	30-34	35 & Over	Salary ¹
77,819 91,550 103,708 94,799 0 0 0 0 103,884 93,962 103,791 111,225 89,624 0 0 0 79,674 95,953 107,059 114,912 113,048 161,905 0 0 100,730 107,068 108,763 109,336 117,624 135,129 0 0 115,673 121,485 80,590 107,660 116,330 133,167 135,017 129,042 0 142,885 113,518 131,732 121,717 125,790 135,649 156,216 0 0 0 246,918 138,233 0 0 \$87,918 \$96,436 \$106,581 \$112,530 \$118,136 \$136,034 \$150,588	. 25	\$76,145	\$86,511	80	80	80	80	80	80	80	\$84,916
103,884 93,962 103,791 111,225 89,624 0 0 0 79,674 95,953 107,059 114,912 113,048 161,905 0 0 100,730 107,068 108,763 109,336 117,624 135,129 0 0 0 109,571 112,666 117,135 120,074 129,848 140,266 0 115,673 121,485 80,590 107,660 116,330 133,167 135,017 129,042 0 142,885 113,518 131,732 121,717 125,790 135,649 156,216 0 0 0 246,918 138,233 0 0 0 \$87,918 \$96,436 \$106,581 \$112,530 \$118,136 \$136,034 \$150,588	66	77,819	91,550	103,708	94,799	0	0	0	0	0	92,146
79,674 95,953 107,059 114,912 113,048 161,905 0 0 100,730 107,068 108,763 109,336 117,624 135,129 0 0 0 109,571 112,666 117,135 120,074 129,848 140,266 0 115,673 121,485 80,590 107,660 116,330 133,167 135,017 129,042 0 142,885 113,518 131,732 121,717 125,790 135,649 156,216 0 93,610 133,564 110,229 86,063 109,454 0 187,082 0 0 0 246,918 138,233 0 0 0 \$87,918 \$96,436 \$106,581 \$112,530 \$118,136 \$131,251 \$136,034 \$150,588	34	103,884	93,962	103,791	111,225	89,624	0	0	0	0	100,644
100,730 107,068 108,763 109,336 117,624 135,129 0 0 0 109,571 112,666 117,135 120,074 129,848 140,266 0 115,673 121,485 80,590 107,660 116,330 133,167 135,017 129,042 0 142,885 113,518 131,732 121,717 125,790 135,649 156,216 0 93,610 133,564 110,229 86,063 109,454 0 187,082 0 0 0 246,918 138,233 0 0 \$87,918 \$96,436 \$106,581 \$112,530 \$118,136 \$131,251 \$136,034 \$150,588	39	79,674	95,953	107,059	114,912	113,048	161,905	0	0	0	107,851
0 109,571 112,666 117,135 120,074 129,848 140,266 0 115,673 121,485 80,590 107,660 116,330 133,167 135,017 129,042 0 142,885 113,518 131,732 121,717 125,790 135,649 156,216 0 93,610 133,564 110,229 86,063 109,454 0 187,082 0 0 0 246,918 138,233 0 0 \$87,918 \$96,436 \$106,581 \$112,530 \$118,136 \$131,251 \$136,034 \$150,588	44	100,730	107,068	108,763	109,336	117,624	135,129	0	0	0	116,020
115,673 121,485 80,590 107,660 116,330 133,167 135,017 129,042 0 142,885 113,518 131,732 121,717 125,790 135,649 156,216 0 93,610 133,564 110,229 86,063 109,454 0 187,082 0 0 0 246,918 138,233 0 0 \$87,918 \$96,436 \$106,581 \$112,530 \$118,136 \$131,251 \$136,034 \$150,588	49	0	109,571	112,666	117,135	120,074	129,848	140,266	0	0	124,696
0 142,885 113,518 131,732 121,717 125,790 135,649 156,216 0 93,610 133,564 110,229 86,063 109,454 0 187,082 0 0 0 246,918 138,233 0 0 \$87,918 \$96,436 \$106,581 \$112,530 \$118,136 \$131,251 \$136,034 \$150,588	54	115,673	121,485	80,590	107,660	116,330	133,167	135,017	129,042	0	126,749
0 93,610 133,564 110,229 86,063 109,454 0 187,082 0 0 0 246,918 138,233 0 0 \$87,918 \$96,436 \$106,581 \$112,530 \$118,136 \$131,251 \$136,034 \$150,588	59	0	142,885	113,518	131,732	121,717	125,790	135,649	156,216	0	131,717
0 0 0 246,918 138,233 0 0 \$87,918 \$96,436 \$106,581 \$112,530 \$118,136 \$131,251 \$136,034 \$150,588	54	0	93,610	133,564	110,229	86,063	109,454	0	187,082	239,849	123,564
\$87,918 \$96,436 \$106,581 \$112,530 \$118,136 \$131,251 \$136,034 \$150,588	Over	0	0	0	0	246,918	138,233	0	0	184,504	189,885
	Salary ¹	\$87,918	\$96,436	\$106,581	\$112,530	\$118,136	\$131,251	\$136,034	\$150,588	\$212,176	\$113,223

^{&#}x27;Based on salary data provided in the June 30, 2022 valuation data for FYE 2022.



APPENDIX A – MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Count as of June 30, 2022
APCD Members

Count

				Ye	ars of Ser	rvice				
Age	0-1	1-4	6-5	10-14	15-19	20-24	25-29	30-34	35 & Over	Total Count
Under 25	0		0	0	0	0	0	0	0	1
25-29	0	2	7	0	0	0	0	0	0	4
30-34	7	5	\mathcal{C}	_	0	0	0	0	0	11
35-39	0	_	0	B	_	0	0	0	0	5
40-44	0	0	1	_	_	0	0	0	0	3
45-49	0	0	_	_	0	0	0	0	0	2
50-54	0	0	0	0	0	0	0	0	0	0
55-59	0	0	-	2	0	1	0	\mathcal{C}	0	7
60-64	0	0	0	0	0	0	0	0	0	0
65 & Over	0	0	0	0	0	0	0	0	0	0
otal Count	2	6	∞	8	2	1	0	3	0	33



APPENDIX A – MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Average Salary as of June 30, 2022 APCD Members

Salary

,					Vears of Se	rvice				Average
Age	0-1	1-4	6-5	10-14	15-19	20-24	25-29	30-34	35 & Over	Salary
Under 25	80	\$83,462	80	80	80	80	80	80	\$0	\$83,462
25-29	0	82,945	99,287	0	0	0	0	0	0	91,116
30-34	67,210	73,328	107,757	117,835	0	0	0	0	0	85,652
35-39	0	64,639	0	118,477	151,364	0	0	0	0	114,287
40-44	0	0	98,131	158,931	96,408	0	0	0	0	117,823
45-49	0	0	132,689	98,131	0	0	0	0	0	115,410
50-54	0	0	0	0	0	0	0	0	0	0
55-59	0	0	98,131	142,026	0	225,583	0	102,570	0	130,782
60-64	0	0	0	0	0	0	0	0	0	0
65 & Over	0	0	0	0	0	0	0	0	0	0
Average Salary ¹ \$67,210 \$75,626 \$	\$67,210	\$75,626	\$106,350	\$126,798	\$123,886	\$225,583	\$0	\$102,570	80	\$104,888

¹Based on salary data provided in the June 30, 2022 valuation data for FYE 2022.



APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Retired Members by Age and Retirement Year as of June 30, 2022 All Members

				Benefit	fit Effective	Date				Total	Average Monthly
Age	Pre-1985	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-2022	Count	Benefit
Under 35	0	0	0	3	0	0	П	7	2	∞	\$883
35-39	0	0	0	0	_	0	_	7	2	9	\$2,145
40-44	0	0	0	0	_	_	0	3	1	9	\$3,194
45-49	0	0	0	0	2	0	9	12	14	34	\$3,144
50-54	0	0	0	3	3	_	7	58	73	145	\$3,286
55-59	0	0	7	2	2	8	54	176	125	369	\$3,639
60-64	0	0	0	10	12	64	182	566	187	721	\$3,932
69-59	0	0	1	11	43	206	273	397	131	1,062	\$4,055
70-74	7	9	3	36	113	243	293	500	44	949	\$3,893
75-79	17	4	21	102	208	250	146	78	28	854	\$3,943
80-84	13	10	52	68	122	88	34	36	13	457	\$3,268
85-89	10	19	36	73	37	24	=======================================	16	111	237	\$2,610
90-94	14	20	40	19	19	7	6	15	∞	151	\$2,326
66-56	15	16	11	3	3	2	5	3	С	61	\$2,381
100 & Over	7	4	_	_	2	0	0	0	0	15	\$2,609
Total Count	78	62	167	352	268	894	1,022	1,273	642	5,075	
Avg Monthly Benefit	\$2,461	\$2,380	\$2,637	\$3,128	\$3,463	\$3,880	\$3,793	\$3,903	\$4,071		\$3,708



APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Retired Members by Age and Retirement Year as of June 30, 2022 General Members

				Benefit	it Effective	Date				Total	Average Monthly
Age	Pre-1985	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-2022	Count	Benefit
Under 35	0	0	0	3	0	0	0	0	7	5	\$649
35-39	0	0	0	0	_	0	0	0	1	7	\$851
40-44	0	0	0	0	_	_	0	_	0	\mathcal{C}	\$1,682
45-49	0	0	0	0	_	0	3	4	5	13	\$1,454
50-54	0	0	0	2	2		3	16	35	59	\$1,354
55-59	0	0	2	_	_	2	27	94	81	208	\$1,918
60-64	0	0	0	8	7	35	26	172	159	478	\$3,095
69-59	0	0	_	9	31	130	182	333	117	800	\$3,358
70-74	_	4	3	29	78	175	263	184	38	775	\$3,477
75-79		2	10	61	131	219	125	63	19	631	\$3,246
80-84	2	5	41	52	107	75	31	29	7	349	\$2,635
82-89	9	16	28	99	34	22	7	14	8	201	\$2,402
90-94	13	19	39	18	16	5	~	15	7	140	\$2,308
65-56	15	16	11	ϵ	7	2	5	33	8	09	\$2,373
100 & Over	9	4	1	1	2	0	0	0	0	14	\$2,158
Total Count	44	99	136	250	414	299	751	876	482	3,738	
Avg Monthly Benefit	\$1,806	\$2,120	\$2,131	\$2,103	\$2,541	\$3,083	\$3,230	\$3,347	\$3,400		\$3,027
Avg Monthly Benefit	\$1,806	\$2,120	\$2,131	\$2,103	\$2,541	\$3,083	\$3,230	\$3,347	\$3,400		



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SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2022

APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Retired Members by Age and Retirement Year as of June 30, 2022 Safety Members

				Benefit Eff	iit Effective Date	Date				Total	Average Monthly
Age	Pre-1985	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-2022	Count	Benefit
Under 35	0	0	0	0	0	0	1	2	0	Э	\$1,275
35-39	0	0	0	0	0	0		2	1	4	\$2,791
40-44	0	0	0	0	0	0	0	2	1	3	\$4,707
45-49	0	0	0	0	_	0	33	%	6	21	\$4,191
50-54	0	0	0	_	_	0	4	41	38	85	\$4,644
55-59	0	0	0	_	_	9	24	81	43	156	\$5,996
60-64	0	0	0	7	5	27	79	06	25	228	\$5,728
69-59	0	0	0	5	12	70	85	57	10	239	\$6,354
70-74	_	7	0	7	33	<i>L</i> 9	25	22	9	163	\$5,823
75-79	16	7	11	41	9/	26	16	14	6	211	\$6,035
80-84	11	5	11	37	14	11	3	7	5	104	\$5,362
82-89	4	3	~	7	7	2	4	2	В	35	\$3,845
90-94	_	_		_	7	2	_	0	1	10	\$2,810
65-66	0	0	0	0	_	0	0	0	0	_	\$2,832
100 & Over	_	0	0	0	0	0	0	0	0	1	\$8,933
Total Count	34	13	31	102	148	211	246	328	151	1,264	
Avg Monthly Benefit	\$3,310	\$3,702	\$4,854	\$5,641	\$6,073	\$6,461	\$5,536	\$5,450	\$6,146		\$5,717



APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Retired Members by Age and Retirement Year as of June 30, 2022 APCD Members

				Benefi	fit Effective	Date				Total	Average Monthly
Age	Pre-1985	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19	2020-2022	Count	Benefit
Under 35	0	0	0	0	0	0	0	0	0	0	80
35-39	0	0	0	0	0	0	0	0	0	0	80
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	80
50-54	0	0	0	0	0	0	0	_	0	1	\$1,827
55-59	0	0	0	0	0	0	3	_	1	5	\$1,692
60-64	0	0	0	0	0	2	9	4	3	15	\$3,323
69-59	0	0	0	0	0	9	9	7	4	23	\$4,419
70-74	0	0	0	0	2	_	5	3	0	11	\$4,578
75-79	0	0	0	0	Π	5	5	_	0	12	\$3,822
80-84	0	0	0	0	Π	2	0	0	1	4	\$4,006
85-89	0	0	0	0	1	0	0	0	0	_	\$1,179
90-94	0	0	0	0	Π	0	0	0	0	-	\$62
66-56	0	0	0	0	0	0	0	0	0	0	80
100 & Over	0	0	0	0	0	0	0	0	0	0	80
Total Count	0	0	0	0	9	16	25	17	6	73	
Avg Monthly Benefit	\$0	\$0	80	\$0	\$2,716	\$3,088	\$3,537	\$4,369	\$5,205		\$3,771



APPENDIX A – MEMBERSHIP INFORMATION

Reconciliation of System Membership since Prior Valuation All Members

	WIII	All Mellibers					
	Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
June 30, 2021	4,321	1,694	70	215	4,002	619	10,921
New Entrants	459	0	0	0	0	0	459
Rehires	36	(20)	0	0	(2)	0	14
Duty Disabilities	(4)	0	0	4	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0
Retirements	(181)	(61)	0	0	242	0	0
Retirements from one plan with service in another	0	0	0	0	∞	0	~
Vested Terminations	(120)	120	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	(2)	(1)	(1)	(3)	(48)	56	
Non-Vested Terminations and Death without beneficiary	(231)	222	(1)	(3)	(57)	0	(70)
Transfers		0	0	0	0	0	
Beneficiary Deaths	0	0	0	0	0	(29)	(29)
Domestic Relations Orders	0	2	0	0	0	9	∞
Withdrawals Paid	0	(173)	0	0	0	0	(173)
Data Corrections	0	2	0	4	(4)	0	2
Benefit Expired	0	(1)	0	0	(2)	(1)	(4)
June 30, 2022	4,279	1,784	89	217	4,139	651	11,138



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, 2021	3,327	1,429	09	75	3,062	425	8,378
New Entrants	401	0	0	0	0	0	401
Rehires	36	(20)	0	0	(2)	0	14
Duty Disabilities	(1)	0	0		0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0
	(128)	(55)	0	0	183	0	0
from one plan with service in another	0	0	0	0	7	0	7
	(107)	107	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	(5)	(1)	(1)	(1)	(35)	41	_
Non-Vested Terminations and Death without beneficiary ((208)	200	(1)	(2)	(50)	0	(61)
Transfers	3	0	0	0	0	0	3
Beneficiary Deaths	0	0	0	0	0	(25)	(25)
Domestic Relations Orders	0	2	0	0	0	4	9
Withdrawals Paid	0	(160)	0	0	0	0	(160)
	0	2	0	_	(1)	0	7
Benefit Expired	0	0	0	0	(2)	(1)	(3)
June 30, 2022	3,321	1,504	28	74	3,162	444	8,563



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, 2021	096	245	10	140	874	188	2,417
New Entrants	55	0	0	0	0	0	55
Rehires	0	0	0	0	0	0	0
Duty Disabilities	(3)	0	0	\mathcal{S}	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0
Retirements	(51)	9)	0	0	57	0	0
Retirements from one plan with service in another	0	0	0	0	_	0	П
Vested Terminations	(12)	12	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	(2)	(12)	14	0
Non-Vested Terminations and Death without beneficiary	(22)	21	0	(1)	(5)	0	(/
Transfers	(2)	0	0	0	0	0	(5)
Beneficiary Deaths	0	0	0	0	0	(4)	(4)
Domestic Relations Orders	0	0	0	0	0	1	П
Withdrawals Paid	0	(11)	0	0	0	0	(11)
Data Corrections	0	0	0	3	(3)	0	0
Benefit Expired	0	(1)	0	0	0	0	(1)
June 30, 2022	925	260	10	143	912	199	2,449



APPENDIX A – MEMBERSHIP INFORMATION

Reconciliation of System Membership since Prior Valuation APCD Members

34 20 3 0 0 0 <td< th=""><th></th><th>Actives</th><th>Deferred Members</th><th>Non-Duty Disabled</th><th>Duty Disabled</th><th>Retired</th><th>Beneficiaries</th><th>Total</th></td<>		Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
ies 0 0 ies 0 0 one plan with service in another (2) 0 0 ons plan with service in another 0 0 0 ons ciaries' Benefit Payable (1) 1 0 inations and Death without beneficiary (1) 1 0 s 0 0 0 s 0 0 0 s Orders 0 0 0 s Orders 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	June 30, 2021	34	20	0	0	99	9	126
ies 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	New Entrants	3	0	0	0	0	0	3
ies 0 0 0 one plan with service in another (2) 0 0 ons (1) 1 0 ciaries' Benefit Payable 0 0 0 inations and Death without beneficiary (1) 1 0 inations and Death without beneficiary (1) 1 0 s 0 0 0 s 0 0 0 s Orders 0 0 0 ts Orders 0 0 0 0 (2) 0	Rehires	0	0	0	0	0	0	0
ies 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Duty Disabilities	0	0	0	0	0	0	0
(2) 0 0 one plan with service in another 0 0 0 nns (1) 1 0 ciaries' Benefit Payable 0 0 0 inations and Death without beneficiary (1) 1 0 s 0 0 0 s 0 0 0 s Orders 0 0 0 ts Orders 0 0 0 0 (2) 0	Ordinary Disabilities	0	0	0	0	0	0	0
one plan with service in another 0 0 0 ons (1) 1 0 ciarries' Benefit Payable 0 0 0 inations and Death without beneficiary (1) 1 0 s 0 0 0 s 0 0 0 s Orders 0 0 0 ts Orders 0 0 0 ts Orders 0 0 0	Retirements	(2)	0	0	0	7	0	0
ons (1) 1 0 0 0 ciaries' Benefit Payable 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Retirements from one plan with service in another	0	0	0	0	0	0	0
ciarries' Benefit Payable 0 0 0 inations and Death without beneficiary (1) 1 0 0 0 0 0 s 0 0 0 ns Orders 0 0 0 0 (2) 0	Vested Terminations	(1)	_	0	0	0	0	0
inations and Death without beneficiary (1) 1 0 0 0 s one of the state	Died, With Beneficiaries' Benefit Payable	0	0	0	0	(1)	1	0
s 0 0 0 0 s O 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Non-Vested Terminations and Death without beneficiary	(1)	_	0	0	(2)	0	(2)
s orders $0 \qquad 0 \qquad 0$ is Orders $0 \qquad 0 \qquad 0 \qquad 0 \qquad (2)$	Transfers	0	0	0	0	0	0	0
ns Orders 0 0 0 0 0 0 (2)	Beneficiary Deaths	0	0	0	0	0	0	0
0 (2)	Domestic Relations Orders	0	0	0	0	0	1	_
	Withdrawals Paid	0	(2)	0	0	0	0	(2)
$0 \qquad 0$	Data Corrections	0	0	0	0	0	0	0
Benefit Expired 0 0 0 0 0 0	Benefit Expired	0	0	0	0	0	0	0
20	June 30, 2022	33	20	0	0	92	8	126



APPENDIX B – MEMBER CONTRIBUTION RATES

	Code		FAS
Plan/Tier	Section	Member Contribution Provides Average Annuity	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 & 6E
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	5.50%	10.99%	5.28%	4.40%	6.29%	12.57%	9.64%	19.27%	9.12%
50	5.59%	11.18%	5.37%	4.47%	6.36%	12.72%	9.76%	19.53%	9.14%
51	5.69%	11.38%	5.45%	4.54%	6.41%	12.83%	9.85%	19.71%	9.14%
52	5.79%	11.57%	5.53%	4.61%	6.45%	12.90%	9.85%	19.71%	9.14%
53	5.88%	11.76%	5.61%	4.67%	6.45%	12.91%	9.85%	19.71%	9.34%
54	5.97%	11.93%	5.66%	4.72%	6.45%	12.91%	9.85%	19.71%	9.65%
55	6.04%	12.07%	5.70%	4.75%	6.45%	12.91%	9.85%	19.71%	9.65%
56	6.09%	12.17%	5.72%	4.77%	6.45%	12.91%	9.85%	19.71%	9.65%
57	6.12%	12.24%	5.72%	4.77%	6.45%	12.91%	9.85%	19.71%	9.65%
58	6.12%	12.25%	5.90%	4.92%	6.45%	12.91%	9.85%	19.71%	9.65%
59	6.12%	12.25%	6.10%	5.08%	6.45%	12.91%	9.85%	19.71%	9.65%
	6.12%	12.25%	6.10%	5.08%	6.45%	12.91%	9.85%	19.71%	9.65%

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, 2022 Valuation For the Fiscal Year July 1, 2023 through June 30, 2024

	PEPRA	Rates	
Ge	eneral		
2% COLA	3% COLA	Safety	APCD
8.48%	9.35%	15.59%	7.15%
Assumptions:			
Interest:	7.00%		
Salary:	2022 Scale (Service base	ed, includes wage inflation	on at 3.00%)
Mortality:	The PEPRA contribution cost. Thus, the mortality valuation (Public Gene Safety 2010 Above-Med mortality improvements Scale MP-2020).	rates are the same as the ral 2010 Above-Media lian Income Mortality T	ose used in the actuarial an Income and Public ables with generational
Administrative expenses:	Rates have been load administrative expenses a	•	ount for the expected



APPENDIX B – MEMBER CONTRIBUTION RATES

Member Cost-Sharing/Pick-Up Contributions by Bargaining Group Estimated Rate During July 1, 2023 to June 30, 2024 (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	1.49%	1.50%
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	1.48%	1.49%
32	Confidential	2.48%	2.50%
35, 40, 41, 42, 43	Unrepresented Managers (including CEO)	2.47%	2.49%
35, 40, 41, 42, 43	Unrepresented Managers - Safety	0.83%	0.83%
36	Unrepresented Confidential Attorneys	1.48%	1.49%
39	Board of Supervisors	0.82%	0.83%
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

SEIU Local 620 (23,24,25,26,27) and Local 721 (21,22), Deputy Sheriffs' Association - Non-Safety (14,15), Deputy Public Defenders (20), Engineers, Technicians (28,29) and Confidential (32), & Union of American Physicians & Dentists (10,11)

Effective July 1, 2023

		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%	11.90%	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%	12.30%	4.73%	2.50%	7.23%	3.94%	2.50%	6.44%
44 4.5	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 46	5.10%	2.50%	7.60%	10.20%	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%	12.90%	5.01%	2.50%	7.51%	4.18%	2.50%	6.68%
47 49	5.30%	2.50%	7.80%	10.60%	2.50%	13.10%	5.10%	2.50%	7.60%	4.25%	2.50%	6.75%
48 49	5.40%	2.50% 2.50%	7.90%	10.80%	2.50%	13.30%	5.19%	2.50%	7.69%	4.33%	2.50%	6.83%
50	5.50%		8.00%	10.99%	2.50%	13.49%	5.28%	2.50%	7.78%	4.40% 4.47%	2.50% 2.50%	6.90%
50 51	5.59% 5.69%	2.50% 2.50%	8.09%	11.18% 11.38%	2.50% 2.50%	13.68% 13.88%	5.37% 5.45%	2.50% 2.50%	7.87% 7.95%	4.47%	2.50%	6.97% 7.04%
51 52	5.79%	2.50%	8.19%	11.58%	2.50%	13.88%	5.53%	2.50%		4.54%	2.50%	
53	5.88%	2.50%	8.29% 8.38%	11.76%	2.50%	14.07%	5.61%	2.50%	8.03% 8.11%	4.67%	2.50%	7.11% 7.17%
55 54	5.88% 5.97%	2.50%	8.47%	11.76%	2.50%	14.43%	5.66%	2.50%	8.11%	4.07%	2.50%	7.17%
55	6.04%	2.50%	8.47% 8.54%	12.07%	2.50%	14.43%	5.70%	2.50%	8.20%	4.72%	2.50%	7.25%
56	6.04%	2.50%	8.59%	12.07%	2.50%	14.57%	5.70%	2.50%	8.20%	4.77%	2.50%	7.23% 7.27%
56 57	6.12%	2.50%	8.62%	12.17%	2.50%	14.07%	5.72%	2.50%	8.22%	4.77%	2.50%	7.27%
58	6.12%	2.50%	8.62%	12.24%	2.50%	14.75%	5.90%	2.50%	8.40%	4.7776	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%	7.42%
										1		
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)



APPENDIX B – MEMBER CONTRIBUTION RATES

					Deputy Dist Effective	rict Attori e July 1, 2						
						c out, 1, 2	025					
Entry Age	Basic	Plan 5A Cost-Sharing	Total	Basic	Plan 5B Cost-Sharing	Total	Basic	Plan 5C Cost-Sharing	Total	Basic	Plan 7 Cost-Sharing	Total
16	3.02%	1.50%	4.52%	6.03%	1.50%	7.53%	2.92%	1.50%	4.42%	2.43%	1.50%	3.93%
17	3.02%	1.50%	4.52%	6.03%	1.50%	7.53%	2.92%	1.50%	4.42%	2.43%	1.50%	3.93%
18	3.02%	1.50%	4.52%	6.03%	1.50%	7.53%	2.92%	1.50%	4.42%	2.43%	1.50%	3.93%
19	3.02%	1.50%	4.52%	6.03%	1.50%	7.53%	2.92%	1.50%	4.42%	2.43%	1.50%	3.93%
20	3.02%	1.50%	4.52%	6.03%	1.50%	7.53%	2.92%	1.50%	4.42%	2.43%	1.50%	3.93%
21	3.08%	1.50%	4.58%	6.16%	1.50%	7.66%	2.98%	1.50%	4.48%	2.49%	1.50%	3.99%
22	3.15%	1.50%	4.65%	6.30%	1.50%	7.80%	3.05%	1.50%	4.55%	2.54%	1.50%	4.04%
23	3.22%	1.50%	4.72%	6.43%	1.50%	7.93%	3.11%	1.50%	4.61%	2.59%	1.50%	4.09%
24	3.22%	1.50%	4.79%	6.57%	1.50%	8.07%	3.11%	1.50%	4.68%	2.65%	1.50%	4.15%
25	3.36%	1.50%	4.86%	6.71%	1.50%	8.21%	3.25%	1.50%	4.75%	2.71%	1.50%	4.21%
26	3.43%	1.50%	4.93%	6.86%	1.50%	8.36%	3.32%	1.50%	4.73%	2.77%	1.50%	4.27%
27	3.50%	1.50%	5.00%	7.01%	1.50%	8.51%	3.32%	1.50%	4.82%	2.7776	1.50%	4.32%
	3.58%	1.50%	5.08%	7.01%	1.50%	8.66%		1.50%	4.89%	2.82%	1.50%	4.327
28 29	3.65%	1.50%		7.16%	1.50%	8.81%	3.46%	1.50%		2.88%	1.50%	
			5.15%				3.54%		5.04%			4.45%
30	3.73%	1.50%	5.23%	7.46%	1.50%	8.96%	3.61%	1.50%	5.11%	3.01%	1.50%	4.51%
31	3.81%	1.50%	5.31%	7.62%	1.50%	9.12%	3.69%	1.50%	5.19%	3.07%	1.50%	4.57%
32	3.89%	1.50%	5.39%	7.78%	1.50%	9.28%	3.77%	1.50%	5.27%	3.14%	1.50%	4.64%
33	3.97%	1.50%	5.47%	7.95%	1.50%	9.45%	3.85%	1.50%	5.35%	3.21%	1.50%	4.71%
34	4.06%	1.50%	5.56%	8.12%	1.50%	9.62%	3.93%	1.50%	5.43%	3.27%	1.50%	4.77%
35	4.15%	1.50%	5.65%	8.29%	1.50%	9.79%	4.01%	1.50%	5.51%	3.34%	1.50%	4.849
36	4.23%	1.50%	5.73%	8.47%	1.50%	9.97%	4.10%	1.50%	5.60%	3.41%	1.50%	4.919
37	4.32%	1.50%	5.82%	8.65%	1.50%	10.15%	4.18%	1.50%	5.68%	3.49%	1.50%	4.99%
38	4.42%	1.50%	5.92%	8.83%	1.50%	10.33%	4.27%	1.50%	5.77%	3.56%	1.50%	5.06%
39	4.51%	1.50%	6.01%	9.02%	1.50%	10.52%	4.36%	1.50%	5.86%	3.63%	1.50%	5.13%
40	4.60%	1.50%	6.10%	9.21%	1.50%	10.71%	4.45%	1.50%	5.95%	3.71%	1.50%	5.219
41	4.70%	1.50%	6.20%	9.40%	1.50%	10.90%	4.54%	1.50%	6.04%	3.79%	1.50%	5.29%
42	4.80%	1.50%	6.30%	9.60%	1.50%	11.10%	4.64%	1.50%	6.14%	3.86%	1.50%	5.369
43	4.90%	1.50%	6.40%	9.80%	1.50%	11.30%	4.73%	1.50%	6.23%	3.94%	1.50%	5.449
44	5.00%	1.50%	6.50%	10.00%	1.50%	11.50%	4.83%	1.50%	6.33%	4.02%	1.50%	5.529
45	5.10%	1.50%	6.60%	10.20%	1.50%	11.70%	4.92%	1.50%	6.42%	4.10%	1.50%	5.60%
46	5.20%	1.50%	6.70%	10.40%	1.50%	11.90%	5.01%	1.50%	6.51%	4.18%	1.50%	5.68%
47	5.30%	1.50%	6.80%	10.60%	1.50%	12.10%	5.10%	1.50%	6.60%	4.25%	1.50%	5.759
48	5.40%	1.50%	6.90%	10.80%	1.50%	12.30%	5.19%	1.50%	6.69%	4.33%	1.50%	5.839
49	5.50%	1.50%	7.00%	10.99%	1.50%	12.49%	5.28%	1.50%	6.78%	4.40%	1.50%	5.909
50	5.59%	1.50%	7.09%	11.18%	1.50%	12.68%	5.37%	1.50%	6.87%	4.47%	1.50%	5.979
51	5.69%	1.50%	7.19%	11.38%	1.50%	12.88%	5.45%	1.50%	6.95%	4.54%	1.50%	6.049
52	5.79%	1.50%	7.29%	11.57%	1.50%	13.07%	5.53%	1.50%	7.03%	4.61%	1.50%	6.119
53	5.88%	1.50%	7.38%	11.76%	1.50%	13.26%	5.61%	1.50%	7.11%	4.67%	1.50%	6.179
54	5.97%	1.50%	7.47%	11.93%	1.50%	13.43%	5.66%	1.50%	7.16%	4.72%	1.50%	6.229
55	6.04%	1.50%	7.54%	12.07%	1.50%	13.57%	5.70%	1.50%	7.20%	4.75%	1.50%	6.25%
56	6.09%	1.50%	7.59%	12.17%	1.50%	13.67%	5.72%	1.50%	7.22%	4.77%	1.50%	6.279
57	6.12%	1.50%	7.62%	12.24%	1.50%	13.74%	5.72%	1.50%	7.22%	4.77%	1.50%	6.279
58	6.12%	1.50%	7.62%	12.25%	1.50%	13.75%	5.90%	1.50%	7.40%	4.92%	1.50%	6.429
59	6.12%	1.50%	7.62%	12.25%	1.50%	13.75%	6.10%	1.50%	7.60%	5.08%	1.50%	6.58%
60	6.12%	1.50%	7.62%	12.25%	1.50%	13.75%	6.10%	1.50%	7.60%	5.08%	1.50%	6.589

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)



APPENDIX B – MEMBER CONTRIBUTION RATES

First Firs	
Entry Age Basic Cost-Sharing Total Dasic Cost-Shar	
Entry Age Basic Cost-Sharing Total Dasic Cost-Shar	
17 3.02% 1.49% 4.51% 6.03% 1.49% 7.52% 2.92% 1.49% 4.41% 2.43% 1.49% 18 3.02% 1.49% 4.51% 6.03% 1.49% 7.52% 2.92% 1.49% 4.41% 2.43% 1.49% 19 3.02% 1.49% 4.51% 6.03% 1.49% 7.52% 2.92% 1.49% 4.41% 2.43% 1.49% 20 3.02% 1.49% 4.51% 6.03% 1.49% 7.52% 2.92% 1.49% 4.41% 2.43% 1.49% 21 3.08% 1.49% 4.57% 6.16% 1.49% 7.52% 2.92% 1.49% 4.47% 2.49% 1.49% 22 3.15% 1.49% 4.57% 6.16% 1.49% 7.79% 3.05% 1.49% 4.54% 2.54% 1.49% 23 3.22% 1.49% 4.71% 6.43% 1.49% 7.92% 3.11% 1.49% 4.60% 2.59% 1.49%	Total
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33 3.97% 1.49% 5.46% 7.95% 1.49% 9.44% 3.85% 1.49% 5.34% 3.21% 1.49% 34 4.06% 1.49% 5.55% 8.12% 1.49% 9.61% 3.93% 1.49% 5.42% 3.27% 1.49% 35 4.15% 1.49% 5.64% 8.29% 1.49% 9.78% 4.01% 1.49% 5.50% 3.34% 1.49% 36 4.23% 1.49% 5.72% 8.47% 1.49% 9.96% 4.10% 1.49% 5.59% 3.41% 1.49% 37 4.32% 1.49% 5.81% 8.65% 1.49% 10.14% 4.18% 1.49% 5.67% 3.49% 1.49% 38 4.42% 1.49% 5.91% 8.83% 1.49% 10.32% 4.27% 1.49% 5.76% 3.56% 1.49%	4.56%
34 4.06% 1.49% 5.55% 8.12% 1.49% 9.61% 3.93% 1.49% 5.42% 3.27% 1.49% 35 4.15% 1.49% 5.64% 8.29% 1.49% 9.78% 4.01% 1.49% 5.50% 3.34% 1.49% 36 4.23% 1.49% 5.72% 8.47% 1.49% 9.96% 4.10% 1.49% 5.59% 3.41% 1.49% 37 4.32% 1.49% 5.81% 8.65% 1.49% 10.14% 4.18% 1.49% 5.67% 3.49% 1.49% 38 4.42% 1.49% 5.91% 8.83% 1.49% 10.32% 4.27% 1.49% 5.76% 3.56% 1.49%	4.63%
34 4.06% 1.49% 5.55% 8.12% 1.49% 9.61% 3.93% 1.49% 5.42% 3.27% 1.49% 35 4.15% 1.49% 5.64% 8.29% 1.49% 9.78% 4.01% 1.49% 5.50% 3.34% 1.49% 36 4.23% 1.49% 5.72% 8.47% 1.49% 9.96% 4.10% 1.49% 5.59% 3.41% 1.49% 37 4.32% 1.49% 5.81% 8.65% 1.49% 10.14% 4.18% 1.49% 5.67% 3.49% 1.49% 38 4.42% 1.49% 5.91% 8.83% 1.49% 10.32% 4.27% 1.49% 5.76% 3.56% 1.49%	4.70%
35 4.15% 1.49% 5.64% 8.29% 1.49% 9.78% 4.01% 1.49% 5.50% 3.34% 1.49% 36 4.23% 1.49% 5.72% 8.47% 1.49% 9.96% 4.10% 1.49% 5.59% 3.41% 1.49% 37 4.32% 1.49% 5.81% 8.65% 1.49% 10.14% 4.18% 1.49% 5.67% 3.49% 1.49% 38 4.42% 1.49% 5.91% 8.83% 1.49% 10.32% 4.27% 1.49% 5.76% 3.56% 1.49%	4.76%
36 4.23% 1.49% 5.72% 8.47% 1.49% 9.96% 4.10% 1.49% 5.59% 3.41% 1.49% 37 4.32% 1.49% 5.81% 8.65% 1.49% 10.14% 4.18% 1.49% 5.67% 3.49% 1.49% 38 4.42% 1.49% 5.91% 8.83% 1.49% 10.32% 4.27% 1.49% 5.76% 3.56% 1.49%	4.83%
38 4.42% 1.49% 5.91% 8.83% 1.49% 10.32% 4.27% 1.49% 5.76% 3.56% 1.49%	4.90%
	4.98%
	5.05%
	5.12%
40 4.60% 1.49% 6.09% 9.21% 1.49% 10.70% 4.45% 1.49% 5.94% 3.71% 1.49%	5.20%
41 4.70% 1.49% 6.19% 9.40% 1.49% 10.89% 4.54% 1.49% 6.03% 3.79% 1.49%	5.28%
42 4.80% 1.49% 6.29% 9.60% 1.49% 11.09% 4.64% 1.49% 6.13% 3.86% 1.49%	5.35%
43 4.90% 1.49% 6.39% 9.80% 1.49% 11.29% 4.73% 1.49% 6.22% 3.94% 1.49%	5.43%
44 5.00% 1.49% 6.49% 10.00% 1.49% 11.49% 4.83% 1.49% 6.32% 4.02% 1.49%	5.51%
45 5.10% 1.49% 6.59% 10.20% 1.49% 11.69% 4.92% 1.49% 6.41% 4.10% 1.49%	5.59%
46 5.20% 1.49% 6.69% 10.40% 1.49% 11.89% 5.01% 1.49% 6.50% 4.18% 1.49%	5.67%
47 5.30% 1.49% 6.79% 10.60% 1.49% 12.09% 5.10% 1.49% 6.59% 4.25% 1.49%	5.74%
48 5.40% 1.49% 6.89% 10.80% 1.49% 12.29% 5.19% 1.49% 6.68% 4.33% 1.49%	5.82%
49 5.50% 1.49% 6.99% 10.99% 1.49% 12.48% 5.28% 1.49% 6.77% 4.40% 1.49%	5.89%
50 5.59% 1.49% 7.08% 11.18% 1.49% 12.67% 5.37% 1.49% 6.86% 4.47% 1.49%	5.96%
51 5.69% 1.49% 7.18% 11.38% 1.49% 12.87% 5.45% 1.49% 6.94% 4.54% 1.49%	6.03%
52 5.79% 1.49% 7.28% 11.57% 1.49% 13.06% 5.53% 1.49% 7.02% 4.61% 1.49%	6.10%
53 5.88% 1.49% 7.37% 11.76% 1.49% 13.25% 5.61% 1.49% 7.10% 4.67% 1.49%	6.16%
54 5.97% 1.49% 7.46% 11.93% 1.49% 13.42% 5.66% 1.49% 7.15% 4.72% 1.49%	6.21%
55 6.04% 1.49% 7.53% 12.07% 1.49% 13.56% 5.70% 1.49% 7.19% 4.75% 1.49%	6.24%
56 6.09% 1.49% 7.58% 12.17% 1.49% 13.66% 5.72% 1.49% 7.21% 4.77% 1.49%	6.26%
57 6.12% 1.49% 7.61% 12.24% 1.49% 13.73% 5.72% 1.49% 7.21% 4.77% 1.49%	6.26%
58 6.12% 1.49% 7.61% 12.25% 1.49% 13.74% 5.90% 1.49% 7.39% 4.92% 1.49%	6.41%
59 6.12% 1.49% 7.61% 12.25% 1.49% 13.74% 6.10% 1.49% 7.59% 5.08% 1.49%	6.57%
60 6.12% 1.49% 7.61% 12.25% 1.49% 13.74% 6.10% 1.49% 7.59% 5.08% 1.49%	6.57%

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)



APPENDIX B – MEMBER CONTRIBUTION RATES

			U	nrepres	ented Manage	rs (incl CI	EO) (35,4	40,41,42,43)				
					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%	4.92%
18	3.02%	2.49%	5.51%	6.03%	2.49%	8.52%	2.92%	2.49%	5.41%	2.43%	2.49%	4.92%
19	3.02%	2.49%	5.51%	6.03%	2.49%	8.52%	2.92%	2.49%	5.41%	2.43%	2.49%	4.92%
20	3.02%	2.49%	5.51%	6.03%	2.49%	8.52%	2.92%	2.49%	5.41%	2.43%	2.49%	4.92%
21	3.08%	2.49%	5.57%	6.16%	2.49%	8.65%	2.98%	2.49%	5.47%	2.49%	2.49%	4.98%
22	3.15%	2.49%	5.64%	6.30%	2.49%	8.79%	3.05%	2.49%	5.54%	2.54%	2.49%	5.03%
23	3.22%	2.49%	5.71%	6.43%	2.49%	8.92%	3.11%	2.49%	5.60%	2.59%	2.49%	5.08%
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%	5.20%
26	3.43%	2.49%	5.92%	6.86%	2.49%	9.35%	3.32%	2.49%	5.81%	2.77%	2.49%	5.26%
27	3.50%	2.49%	5.99%	7.01%	2.49%	9.50%	3.39%	2.49%	5.88%	2.82%	2.49%	5.31%
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%	6.12%
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%	6.59%
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%	6.74%
48	5.40%	2.49%	7.89%	10.80%	2.49%	13.29%	5.19%	2.49%	7.68%	4.33%	2.49%	6.82%
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%	7.03%
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%	7.16%
54	5.97%	2.49%	8.46%	11.93%	2.49%	14.42%	5.66%	2.49%	8.15%	4.72%	2.49%	7.21%
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%	7.41%
59	6.12%	2.49%	8.61%	12.25%	2.49%	14.74%	6.10%	2.49%	8.59%	5.08%	2.49%	7.57%
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)



APPENDIX B – MEMBER CONTRIBUTION RATES

		Unr	epresente	d Manage	rs Safety (35,4	40,41,42,4	-3)		
				Effective .	July 1, 2023				
		DI 44 0 CA			Plan 4B			DI 4C 0 CD	
Entry Age	Basic	Plan 4A & 6A Cost Sharing	Total	Basic	Cost Sharing	Total	Basic	Plan 4C & 6B Cost Sharing	Total
16	5.88%	0.83%	6.71%	11.75%	0.83%	12.58%	5.65%	0.83%	6.48%
17	5.88%	0.83%	6.71%	11.75%	0.83%	12.58%	5.65%	0.83%	6.48%
18	5.88%	0.83%	6.71%	11.75%	0.83%	12.58%	5.65%	0.83%	6.48%
19	5.88%	0.83%	6.71%	11.75%	0.83%	12.58%	5.65%	0.83%	6.48%
20	5.88%	0.83%	6.71%	11.75%	0.83%	12.58%	5.65%	0.83%	6.48%
21	5.98%	0.83%	6.81%	11.95%	0.83%	12.78%	5.75%	0.83%	6.58%
22	6.08%	0.83%	6.91%	12.15%	0.83%	12.98%	5.84%	0.83%	6.67%
23	6.18%	0.83%	7.01%	12.36%	0.83%	13.19%	5.94%	0.83%	6.77%
24	6.28%	0.83%	7.11%	12.56%	0.83%	13.39%	6.04%	0.83%	6.87%
25	6.39%	0.83%	7.22%	12.77%	0.83%	13.60%	6.14%	0.83%	6.97%
26	6.49%	0.83%	7.32%	12.99%	0.83%	13.82%	6.24%	0.83%	7.07%
27	6.60%	0.83%	7.43%	13.20%	0.83%	14.03%	6.35%	0.83%	7.18%
28	6.71%	0.83%	7.54%	13.42%	0.83%	14.25%	6.45%	0.83%	7.28%
29	6.82%	0.83%	7.65%	13.65%	0.83%	14.48%	6.56%	0.83%	7.39%
30	6.94%	0.83%	7.77%	13.87%	0.83%	14.70%	6.67%	0.83%	7.50%
31	7.05%	0.83%	7.88%	14.10%	0.83%	14.93%	6.78%	0.83%	7.61%
32	7.17%	0.83%	8.00%	14.34%	0.83%	15.17%	6.90%	0.83%	7.73%
33	7.29%	0.83%	8.12%	14.58%	0.83%	15.41%	7.01%	0.83%	7.84%
34	7.41%	0.83%	8.24%	14.82%	0.83%	15.65%	7.13%	0.83%	7.96%
35	7.54%	0.83%	8.37%	15.07%	0.83%	15.90%	7.25%	0.83%	8.08%
36	7.66%	0.83%	8.49%	15.32%	0.83%	16.15%	7.37%	0.83%	8.20%
37	7.79%	0.83%	8.62%	15.58%	0.83%	16.41%	7.49%	0.83%	8.32%
38	7.92%	0.83%	8.75%	15.85%	0.83%	16.68%	7.62%	0.83%	8.45%
39	8.06%	0.83%	8.89%	16.12%	0.83%	16.95%	7.75%	0.83%	8.58%
40	8.20%	0.83%	9.03%	16.40%	0.83%	17.23%	7.89%	0.83%	8.72%
41	8.35%	0.83%	9.18%	16.69%	0.83%	17.52%	8.03%	0.83%	8.86%
42	8.50%	0.83%	9.33%	16.99%	0.83%	17.82%	8.17%	0.83%	9.00%
43	8.65%	0.83%	9.48%	17.30%	0.83%	18.13%	8.32%	0.83%	9.15%
44	8.82%	0.83%	9.65%	17.63%	0.83%	18.46%	8.47%	0.83%	9.30%
45	8.98%	0.83%	9.81%	17.96%	0.83%	18.79%	8.62%	0.83%	9.45%
46	9.15%	0.83%	9.98%	18.30%	0.83%	19.13%	8.77%	0.83%	9.60%
47	9.32%	0.83%	10.15%	18.65%	0.83%	19.48%	8.90%	0.83%	9.73%
48	9.49%	0.83%	10.32%	18.98%	0.83%	19.81%	9.02%	0.83%	9.85%
49	9.64%	0.83%	10.47%	19.27%	0.83%	20.10%	9.12%	0.83%	9.95%
50	9.76%	0.83%	10.59%	19.53%	0.83%	20.36%	9.14%	0.83%	9.97%
51	9.85%	0.83%	10.68%	19.71%	0.83%	20.54%	9.14%	0.83%	9.97%
52	9.85%	0.83%	10.68%	19.71%	0.83%	20.54%	9.14%	0.83%	9.97%
53	9.85%	0.83%	10.68%	19.71%	0.83%	20.54%	9.34%	0.83%	10.17%
54	9.85%	0.83%	10.68%	19.71%	0.83%	20.54%	9.65%	0.83%	10.48%
55	9.85%	0.83%	10.68%	19.71%	0.83%	20.54%	9.65%	0.83%	10.48%
56	9.85%	0.83%	10.68%	19.71%	0.83%	20.54%	9.65%	0.83%	10.48%
57	9.85%	0.83%	10.68%	19.71%	0.83%	20.54%	9.65%	0.83%	10.48%
58	9.85%	0.83%	10.68%	19.71%	0.83%	20.54%	9.65%	0.83%	10.48%
59	9.85%	0.83%	10.68%	19.71%	0.83%	20.54%	9.65%	0.83%	10.48%
60	9.85%	0.83%	10.68%	19.71%	0.83%	20.54%	9.65%	0.83%	10.48%

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

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 CostSharii		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% 6.18%	6.00%	12.08%	12.15%	6.00%	18.15%	5.84%	6.00%	11.84%
23		6.00%	12.18%	12.36%	6.00%	18.36%	5.94%	6.00%	11.94%
24 25	6.28% 6.39%	6.00% 6.00%	12.28% 12.39%	12.56% 12.77%	6.00% 6.00%	18.56% 18.77%	6.04% 6.14%	6.00% 6.00%	12.04% 12.14%
25 26	6.49%	6.00%	12.39%	12.77%	6.00%	18.77%	6.24%	6.00%	12.14%
26 27	6.60%	6.00%	12.49%	13.20%	6.00%	18.99%	6.24%	6.00%	12.24%
28	6.71%	6.00%	12.71%	13.42%	6.00%	19.42%	6.45%	6.00%	12.35%
28 29	6.82%	6.00%	12.71%	13.42%	6.00%	19.42%	6.56%	6.00%	12.45%
30	6.94%	6.00%	12.82%	13.87%	6.00%	19.87%	6.67%	6.00%	12.50%
31	7.05%	6.00%	13.05%	14.10%	6.00%	20.10%	6.78%	6.00%	12.78%
32	7.03%	6.00%	13.03%	14.10%	6.00%	20.10%	6.90%	6.00%	12.76%
33	7.1776	6.00%	13.17%	14.58%	6.00%	20.54%	7.01%	6.00%	13.01%
34	7.41%	6.00%	13.41%	14.82%	6.00%	20.82%	7.13%	6.00%	13.13%
35	7.54%	6.00%	13.54%	15.07%	6.00%	21.07%	7.25%	6.00%	13.25%
36	7.66%	6.00%	13.66%	15.32%	6.00%	21.32%	7.37%	6.00%	13.37%
37	7.79%	6.00%	13.79%	15.58%	6.00%	21.58%	7.49%	6.00%	13.49%
38	7.92%	6.00%	13.92%	15.85%	6.00%	21.85%	7.62%	6.00%	13.62%
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%	16.40%	6.00%	22.40%	7.89%	6.00%	13.89%
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 C – EMPLOYER CONTRIBUTION RATES WITH MEMBER COST-SHARING ADJUSTMENTS

General Employer Contribution Rates after Member Cost-Sharing

SEIU Local 620 (23, 24, 25, 26, 27) and Local 721 (21, 22)

Deputy Public Defenders (20) and Deputy Sheriffs' Association (Non-Safety 14, 15)

Engineers & Technicicans (28, 29) and Confidential (32)

	5A	5B	5C	Plan 7
June 30, 2021 Contribution Rate for FYE 2023	37.55%	37.52%	39.27%	39.22%
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, 2022	35.07%	35.04%	36.79%	36.74%
June 30, 2022 Contribution Rate for FYE 2024	37.14%	37.01%	38.93%	39.74%
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%	37.26%

General Employer Contribution Rates after Member Cost-Sharing Deputy District Attorneys (17) 5B 5A 5C Plan 7 June 30, 2021 Contribution Rate for FYE 2023 37.55% 37.52% 39.27% 39.22% Adjusted Member Cost-Sharing Contributions <u>-1.49%</u> <u>-1.49%</u> <u>-1.49%</u> -1.49% Net Employer Rate Effective July 1, 2022 36.03% 37.73% 36.06% 37.78% June 30, 2022 Contribution Rate for FYE 2024 38.93% 39.74% 37.14% 37.01% Adjusted Member Cost-Sharing Contributions -1.49% -1.49% -1.49% -1.49% **Net Employer Rate Effective July 1, 2023** 35.65% 35.52% 37.44% 38.25%



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

General Employer Contribution Rates after Member Cost-Sharing Civil Attorneys Association (30) and Unrepresented Confidential Attorneys (36)

	5A	5B	5C	Plan 7
June 30, 2021 Contribution Rate for FYE 2023	37.55%	37.52%	39.27%	39.22%
Adjusted Member Cost-Sharing Contributions	<u>-1.48%</u>	<u>-1.48%</u>	<u>-1.48%</u>	<u>-1.48%</u>
Net Employer Rate Effective July 1, 2022	36.07%	36.04%	37.79%	37.74%
June 30, 2022 Contribution Rate for FYE 2024	37.14%	37.01%	38.93%	39.74%
Adjusted Member Cost-Sharing Contributions	<u>-1.48%</u>	<u>-1.48%</u>	<u>-1.48%</u>	<u>-1.48%</u>
Net Employer Rate Effective July 1, 2023	35.66%	35.53%	37.45%	38.26%

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

	5A	5B	5C	Plan 7
June 30, 2021 Contribution Rate for FYE 2023	37.55%	37.52%	39.27%	39.22%
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, 2022	35.08%	35.05%	36.80%	36.75%
June 30, 2022 Contribution Rate for FYE 2024	37.14%	37.01%	38.93%	39.74%
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%	37.27%



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

General Employer Contribution Rates after Member Cost-Sharing Union of American Physicians & Dentists (10, 11)				
	5A	5B	5C	Plan 7
June 30, 2021 Contribution Rate for FYE 2023	37.55%	37.52%	39.27%	39.22%
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, 2022	35.07%	35.04%	36.79%	36.74%
June 30, 2022 Contribution Rate for FYE 2024	37.14%	37.01%	38.93%	39.74%
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%	37.26%

Safety Employer Contribution Rates after Member Cost-Sharing Unrepresented Safety Managers (35, 40, 41, 42, 43)					
	4 A	4B	4C	6A	6 B
June 30, 2021 Contribution Rate for FYE 2023	58.38%	63.51%	57.06%	66.41%	65.37%
Adjusted Member Cost-Sharing Contributions	<u>-0.83%</u>	<u>-0.83%</u>	<u>-0.83%</u>	<u>-0.83%</u>	<u>-0.83%</u>
Net Employer Rate Effective July 1, 2022	57.55%	62.68%	56.23%	65.58%	64.54%
June 30, 2022 Contribution Rate for FYE 2024	61.25%	63.52%	59.55%	70.17%	69.01%
Adjusted Member Cost-Sharing Contributions	<u>-0.83%</u>	<u>-0.83%</u>	<u>-0.83%</u>	<u>-0.83%</u>	<u>-0.83%</u>
Net Employer Rate Effective July 1, 2023	60.42%	62.69%	58.72%	69.34%	68.18%



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)

Sheriff Managers Association (44)

	4A	4B	4C	6A	6B
June 30, 2021 Contribution Rate for FYE 2023	58.38%	63.51%	57.06%	66.41%	65.37%
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, 2022	52.41%	57.54%	51.09%	60.44%	59.40%
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%



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. 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 six 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 10 years. As of June 30, 2022, it would take approximately 10 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.

1. Rate of Return

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

2. Administrative Expenses

Administrative expenses are assumed to be \$6.4 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.

3. 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.

4. 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.

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.



APPENDIX D – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

5. 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.

6. 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.

7. 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.

8. 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.

9. 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%.

10. 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%	



APPENDIX D – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

11. 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

12. Increases in Pay

Wage inflation component: 3.00%

Additional longevity and promotion component:

Longevi	ty 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

13. 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

14. 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

15. 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

16. 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							
	Gen	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.

17. 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.



APPENDIX D – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

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.

18. 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.

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.

19. Benefit Payment Timing

End of the month.



APPENDIX D – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

20. 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

21. 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 Retirement											
					Safety						
	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%						

22. Changes Since Last Valuation

Several changes have been implemented based on an experience study performed by Cheiron covering the period from July 1, 2019 through June 30, 2022. Please refer to our Actuarial Experience Study for July 1, 2019 through June 2022 for the detail and rationale of the assumption changes.



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, 2022. The benefit and contribution provisions of this law are summarized briefly 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)



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 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 (\$134,974 for calendar year 2022 and \$146,042 for calendar year 2023). For those not participating in Social Security, the compensation cap is 120% of the above limit (\$161,969 for calendar year 2022 and \$175,250 for calendar year 2023). In addition, it is



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APPENDIX E – SUMMARY OF PLAN PROVISIONS

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.

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				



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APPENDIX E – SUMMARY OF PLAN PROVISIONS

APCD Plan members:

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

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										
			General	, nan						
-	General		& APCD	APCD	Dlan 4	Safety	Dlaw 0			
Code Sections	Plan 5	Plan 7	Plan 8	21676 15	Plan 4	Plan 6	Plan 8			
Code Section: Label:	31676.12 2% @ 57	31676.1 1.67% @ 57.5	PEPRA	31676.15 2% @ 55	31664.2 3% @ 55	31664.1 3% @ 50	PEPRA			
Base:	2.00%	1.67%	TEINA	2.00%	3.00%	3.00%	TEINA			
Age:	2.00 / 0	1.07 / 0		2.00 / 0	3.00 / 0	3.00 / 0				
41					0.4777	0.6258				
42					0.5058	0.6625				
43					0.5347	0.7004				
44					0.5647	0.7397				
45					0.5958	0.7805				
46					0.6280	0.8226				
47					0.6625	0.8678				
48					0.6936	0.9085				
49					0.7269	0.9522				
50	0.6681	0.7091		0.7454	0.7634	1.0000	0.0200			
51	0.7056	0.7457		0.7882	0.8028	1.0000	0.0210			
52	0.7454	0.7816	0.0100	0.8346	0.8457	1.0000	0.0220			
53	0.7882	0.8181	0.0110	0.8850	0.8926	1.0000	0.0230			
54	0.8346	0.8556	0.0120	0.9399	0.9418	1.0000	0.0240			
55	0.8850	0.8954	0.0130	1.0000	1.0000	1.0000	0.0250			
56	0.9399	0.9382	0.0140	1.0447	1.0000	1.0000	0.0260			
57	1.0000	0.9846	0.0150	1.1048	1.0000	1.0000	0.0270			
58	1.0447	1.0350	0.0160	1.1686	1.0000	1.0000	0.0270			
59	1.1048	1.0899	0.0170	1.2365	1.0000	1.0000	0.0270			
60	1.1686	1.1500	0.0180	1.3093	1.0000	1.0000	0.0270			
61	1.2365	1.1947	0.0190	1.3608	1.0000	1.0000	0.0270			
62	1.3093	1.2548	0.0200	1.4123	1.0000	1.0000	0.0270			
63	1.3093	1.3186	0.0210	1.4638	1.0000	1.0000	0.0270			
64	1.3093	1.3865	0.0220	1.5153	1.0000	1.0000	0.0270			
65	1.3093	1.4593	0.0230	1.5668	1.0000	1.0000	0.0270			
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)



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: T

The monthly allowance is equal to a service retirement allowance if the 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

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.



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.



APPENDIX F – GLOSSARY

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.

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.



