

Santa Barbara County Employees' Retirement System

Actuarial Valuation Report as of June 30, 2019

Produced by Cheiron

January 2020

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January 13, 2020

Board of Retirement
Santa Barbara County Employees' Retirement System
3916 State Street, Suite 210
Santa Barbara, CA 93105

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, 2019. 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



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



Anne D. Harper, FSA, MAAA, EA
Principal Consulting Actuary

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

FOREWORD

Cheiron has performed the actuarial valuation of the Santa Barbara County Employees' Retirement System as of June 30, 2019. 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
 - Section VI – Comprehensive Annual Financial Reporting Information
- In the **Appendices**, we conclude our report with the following detailed information
 - Appendix A – Membership Information
 - Appendix B – Member Contribution Rates
 - Appendix C – Actuarial Assumptions and Methods
 - Appendix D – Summary of Plan Provisions
 - Appendix E – Contribution Rates with Member Cost Sharing Adjustment
 - 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.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
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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 2020-2021,
- Information required by the GFOA for the Comprehensive Annual 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, 2019 provided to SBCERS in November 2019.

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, 2020.

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 11 years), except for the additional UAL attributable to the creation of Safety Plan 6, which is being amortized over a separate closed period (currently nine 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 D.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
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SECTION I – EXECUTIVE SUMMARY

Actuarial experience studies are performed every three years. 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, 2019. The Board voted to maintain the economic assumptions on October 23, 2019. The demographic assumptions were adopted on December 11, 2019. A summary of the assumptions and methods used in the current valuation is shown in Appendix C.

B. Key Findings of this Valuation

The key results of the June 30, 2019 actuarial valuation are as follows:

- The actuarially determined employer contribution rate increased from 40.02% of payroll to 41.30% of payroll before assumption changes and the impact of employee cost-sharing. The primary reason for the rate increase is due to the expected phase-in of prior amortization bases under the direct rate smoothing funding policy, offset somewhat by the effect of payroll on the Unfunded Actuarial Liability (UAL) amortization payment rate and new members hired under PEPR.
- Assumption changes further increased the employer contribution rate from 41.30% to 41.44%, but decreased the UAL by \$7.5 million.
- The net employer contribution rate after the impact of the employer pick-up increased from 38.47% to 39.33%. 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 1.55% for FYE 2020 and 2.11% for FYE 2021.
- The System's funded ratio, the ratio of Market Value of Assets over Actuarial Liability, increased from 77.2% last year to 78.4% as of June 30, 2019.
- The UAL is the excess of the System's Actuarial Liability over the Market Value of Assets. The System experienced a decrease in the UAL from \$886.1 million to \$882.5 million, a decrease of \$3.6 million. Table I-3 on page five details the changes in UAL.
- During the plan year ending June 30, 2019, the return on Plan assets was 7.53% – net of investment expenses and assuming mid-year cash flows – as compared to the 7.00% assumption. This produced an actuarial asset gain of \$15.7 million.
- The actuarial liabilities of the System increased more than expected. The experience losses were primarily due to larger COLA increases than expected for current retirees, larger salary increases than expected, General member retirement experience, and more disabilities than expected, and retirement experience. Consequently, the System experienced a net loss on the Actuarial Liability of \$40.1 million.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
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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, liabilities, Unfunded Actuarial Liability, funded ratios, contribution rates, and membership. The results are shown and compared for both the current and prior plan year.

Valuation Date Fiscal Year End	June 30, 2018 2020	June 30, 2019 2021	Change
Actuarial Liability	\$ 3,888,127	\$ 4,080,638	5.0%
Market Value of Assets	<u>3,002,019</u>	<u>3,198,134</u>	6.5%
Unfunded Actuarial Liability (UAL)	\$ 886,109	\$ 882,504	-0.4%
Funding Ratio	77.2%	78.4%	1.2%
Employer Contribution Rate	40.02%	41.44%	1.42%
Estimated Impact of Employee Cost-Sharing	<u>-1.55%</u>	<u>-2.11%</u>	<u>-0.56%</u>
Net Employer Contribution Rate	38.47%	39.33%	0.86%

The key results shown in Table I-1 indicate that because the Actuarial Liability increased by only 5.0% and the Market Value of Assets increased by 6.5%, the funding ratio improved from 77.2% to 78.4%, an increase of 1.2%. Additionally, the Unfunded Actuarial Liability (UAL) decreased by \$3.6 million or -0.4% as of June 30, 2019.

The employer contribution rate increased 1.42% from 40.02% to 41.44% of payroll. With the estimated impact of employee cost sharing, the net employer contribution rate increased 0.86% from 38.47% to 39.33%.

Based on estimated fiscal year payroll of \$382.1 million, the estimated fiscal year 2020-21 gross employer contributions are \$158.3 million and \$150.3 million net of cost sharing. Note that the estimated fiscal year payroll amounts are based on projected payroll from the previous years' 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.

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As shown in Table I-2 below, membership in SBCERS increased by 2.6%. Active membership increased by 2.3%, inactives increased by 0.6%, and members receiving benefits increased by 3.6%. Total payroll increased by 5.1%, which is more than the assumed 3.0% increase. The average pay per active member increased by 2.7%.

Table I-2 Membership Total			
	June 30, 2018	June 30, 2019	% Change
Actives	4,171	4,269	2.3%
Terminated Members	1,589	1,598	0.6%
Members Receiving Benefits	<u>4,519</u>	<u>4,680</u>	3.6%
Total Members	10,279	10,547	2.6%
Ratio of Inactives to Active Members	1.46	1.47	
Active Member Projected Payroll	\$ 353,016,061	\$ 370,936,244	5.1%
Average Pay per Active	\$ 84,636	\$ 86,891	2.7%

Projected payroll is based on valuation data projected for next fiscal year using a full year of salary increases. Pay is annualized for members who worked less than 1,040 hours in the prior year and for new hires.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
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SECTION I – EXECUTIVE SUMMARY

Table I-3 Change in Unfunded Actuarial Liability (in thousands)	
Unfunded Actuarial Liability, 6/30/2018	\$ 886,109
Expected change in Unfunded Actuarial Liability	\$ (21,744)
Unfunded decrease due to actuarial asset gain ¹	(14,476)
Unfunded increase due to liability loss	40,070
Unfunded decrease due to assumption changes	(7,455)
Total change in unfunded actuarial liability	<u>\$ (3,605)</u>
Unfunded Actuarial Liability, 6/30/2019	\$ 882,504

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

The Unfunded Actuarial Liability (UAL) for SBCERS decreased by \$3.6 million, from \$886.1 million to \$882.5 million. Table I-3 above presents the specific components of the change in the UAL.

The expected decrease in the UAL of \$21.7 million is the amount of expected employer and employee contributions in excess of benefits expected to accrue for active members and interest on the UAL. The actuarial asset gain, including a net loss due to expenses and contribution timing lag, decreased the UAL by \$14.5 million. The liability experience increased the UAL by \$40.1 million. Assumption changes decreased the UAL by \$7.5 million.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
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SECTION I – EXECUTIVE SUMMARY

Employer Contributions Comparison

Thus far, the experience of the 2018-19 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 under the previous assumptions and the new assumptions. The employer contribution rate increased by 1.42% for the June 30, 2019 valuation (prior to the impact of the employee cost sharing). A decrease of 0.24% in the employer normal cost and an increase of 1.66% in the amortization of the UAL comprise the total increase. After the impact of employee cost sharing is included in the calculations, the employer contribution rate increased by 0.86%.

Table I-4				
Contributions Rates by Components				
Valuation Year	Prior Asmps		New Asmps	
	2018	2019	2019	Total
Effective for Fiscal Year End	FYE 2020	FYE 2021	FYE 2021	Change
Gross Normal Cost	22.55%	22.28%	23.04%	0.49%
Employee Contributions	<u>6.27%</u>	<u>6.51%</u>	<u>7.00%</u>	<u>0.73%</u>
Employer Normal Cost	16.28%	15.77%	16.04%	-0.24%
UAL Amortization Payment	<u>23.74%</u>	<u>25.53%</u>	<u>25.40%</u>	1.66%
Employer Contribution Rate	40.02%	41.30%	41.44%	1.42%
Estimated Impact of Employee Cost-Sharing	<u>-1.55%</u>	<u>-2.11%</u>	<u>-2.11%</u>	<u>-0.56%</u>
Net Employer Contribution Rate	38.47%	39.19%	39.33%	0.86%

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SECTION I – EXECUTIVE SUMMARY

Table I-5 summarizes the impact of actuarial experience on the employer contribution rate.

Table I-5 Employer Contribution Rate Reconciliation (Prior to Cost Sharing)				
	Normal Cost	UAL Payment	Total	Dollars
FYE 2020 Employer Contribution Rate	16.28%	23.74%	40.02%	\$145.5 M
Expected change due to DRS amortization phase-in	0.00%	2.18%	2.18%	
Expected change due to PEPPA new hires	<u>-0.46%</u>	<u>0.00%</u>	<u>-0.46%</u>	
Expected FYE 2021 Employer Contribution Rate	15.82%	25.92%	41.74%	\$156.3 M
Change due to effect of payroll on amortization	0.00%	-0.53%	-0.53%	
Change due to asset gain	0.00%	-0.08%	-0.08%	
Change due to demographic experience	-0.05%	0.22%	0.17%	
Change due to assumption changes	<u>0.27%</u>	<u>-0.13%</u>	<u>0.14%</u>	
Total Change	0.22%	-0.52%	-0.30%	
FYE 2021 Employer Contribution Rate	16.04%	25.40%	41.44%	\$158.3 M

A review of the changes in the employer contribution rate from the prior valuation shows that the expected phase-in of prior amortization bases under direct rate smoothing (DRS), 2.18% of payroll, is the largest driver of a net increase in the employer contribution rate. See Table V-2 Development of Amortization Payment for details on each base. The other components of the contribution rate change are as follows:

- PEPPA members are now over 34% of active member payroll. The average employee contribution rate continues to increase since most PEPPA members have higher employee contribution rates than the retiring legacy members they replace. PEPPA benefits are also lower than the legacy members' benefits. The impact of the increasing number of PEPPA members was a 0.46% of pay decrease on the employer contribution rate.
- Payroll used to amortize unfunded liabilities was higher than expected by about \$7.1 million. As a result, unfunded actuarial liabilities are amortized over a larger payroll base than expected, and the employer contribution rate, as a percentage of payroll, decreased by 0.53%.
- Asset experience produced an investment gain that decreased the contribution rate by 0.08% of pay. The assets of the Plan returned 7.53% (net of investment expenses), greater than the assumed rate of 7.00%. The impact of the current year gain will continue to be phased-in to the employer contribution rates over the next four years, as provided for under the Plan's funding policy.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
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SECTION I – EXECUTIVE SUMMARY

- Demographic experience was slightly unfavorable for a net increase in cost of about 0.17% of pay. 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. As with the asset gain, the amortized portion of the demographic loss attributable to the change in the UAL 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 primary factors contributing to the demographic loss and resulting contribution increase were larger pay increases than expected for some members, larger COLA increases than expected for current retirees, more disabilities than expected, and retirement experience. The assumed rate of COLA growth is 2.6% for members with a 3.0% COLA cap and 1.9% for members with a 2% COLA cap, while the actual COLA increases for FY18-19 were 3.0% and 2.0%, for the 3.0% and 2.0% capped groups, respectively, thus resulting in a loss on the liabilities.

- The demographic assumption changes increased the current year employer contribution rate by 0.14% of pay. The increase was 0.22% of pay for General members, a decrease of 0.13% of pay for Safety members, and an increase of 0.15% of pay for APCD members. The ultimate change in the employer contribution rates, once the UAL rate changes have been fully phased-in over the next four years, is expected to be an increase of 0.06% for the total System, a 0.81% of pay increase for General members, a 1.98% of pay decrease for Safety members, and a 1.56% of pay increase for APCD members.

The primary driver of the total System cost impact was changes to the disability rates and salary merit increases. However, for Safety members changes to mortality and retirement assumptions decreased the Safety employer contribution rates. More detail on the impact of the individual assumption changes can be found in the actuarial experience study report.

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SECTION I – EXECUTIVE SUMMARY

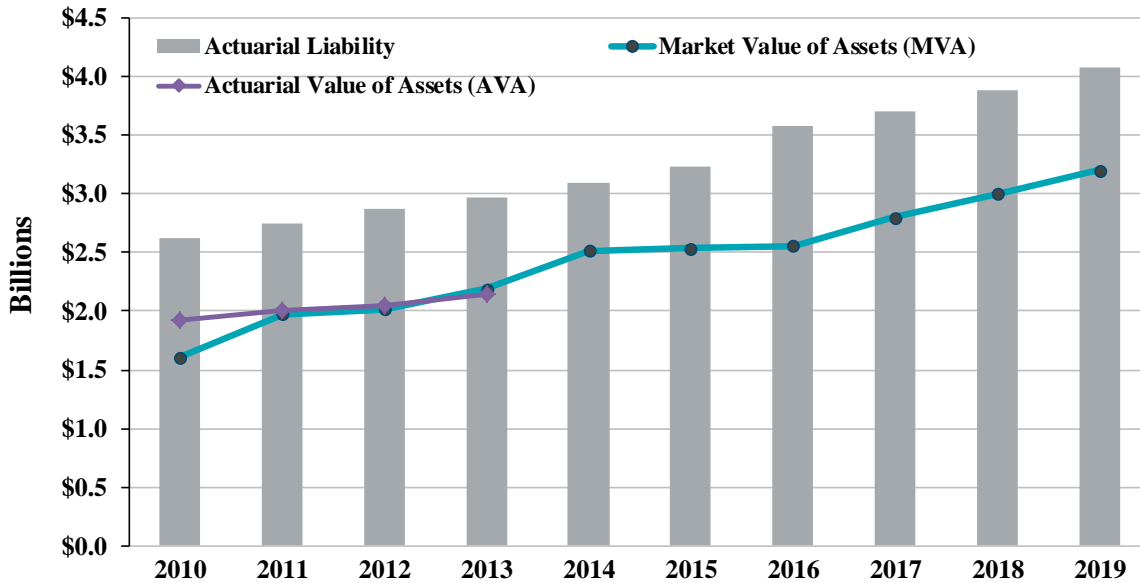
C. Historical Trends

Despite the fact that 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, it is important to remember that each valuation is merely a snapshot in the long-term progress of a pension fund. It is important to judge a current year's valuation result relative to historical trends, as well as trends expected into the future.

Assets and Liabilities

The chart below compares the Market Value of Assets (MVA) to the actuarial liabilities. The percentage shown in the table below the graph is the ratio of the Market Value of Assets to the Actuarial Liability (the funded ratio). The funded ratio decreased from 73.7% in 2010 to 71.5% in 2016, primarily as a result of phasing-in the asset losses in 2008-2009 and changes in the actuarial assumptions. The gradual increase in the funded ratio from 2016 to 2019, reaching 78.4%, is primarily due to asset gains during the period.

Assets and Liabilities



Funded Ratio	73.7%	73.0%	71.2%	72.4%	81.1%	78.4%	71.5%	75.7%	77.2%	78.4%
UAL (Billions)	\$ 0.69	\$ 0.74	\$ 0.83	\$ 0.82	\$ 0.58	\$ 0.70	\$ 1.02	\$ 0.90	\$ 0.89	\$ 0.88

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

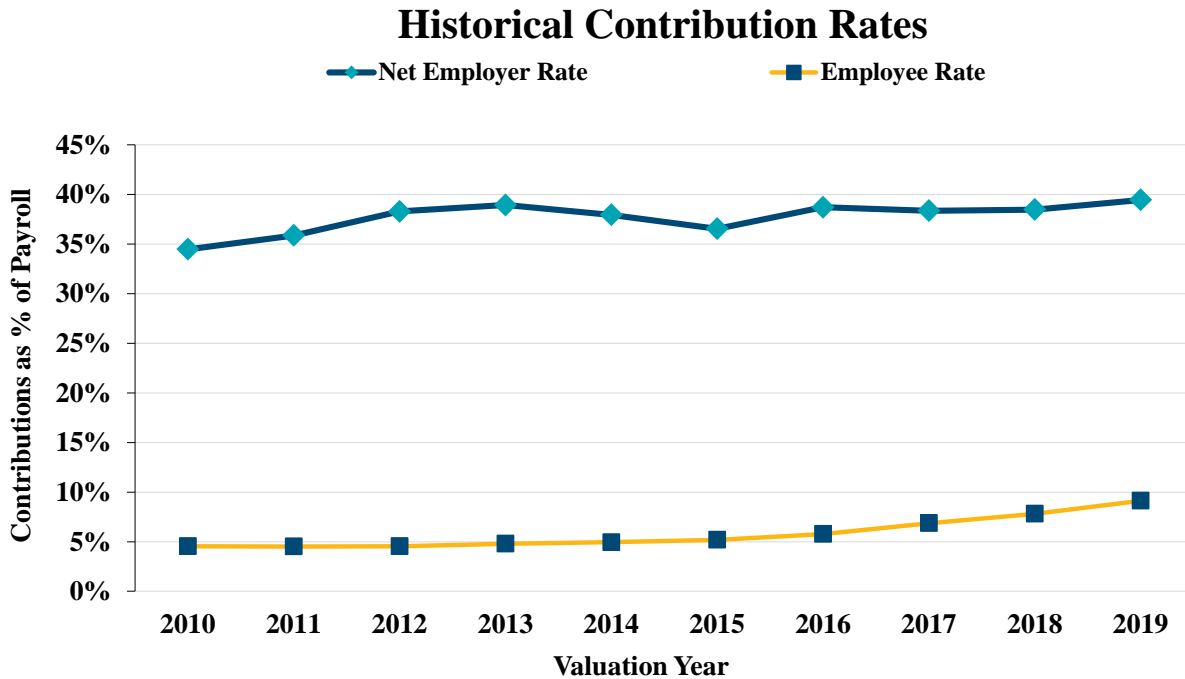
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SECTION I – EXECUTIVE SUMMARY

Contribution Trends

In the chart below, we present the historical trends for the SBCERS contribution rates. The employer contribution rates have been relatively stable during this period ranging from 35% to 40%. The contribution rate increased slightly from 2010 to 2013 due to the poor investment returns being phased in from 2008-2009. Then, the employer rate decreased due to favorable asset experience and an asset method change in 2013-2014 that eliminated the actuarial asset smoothing. In 2016, the assumption changes implemented increased the employer contribution rate, but rates have subsequently been relatively stable. This stability is a combination of the continued phase-in of the assumption change amortization bases under the direct rate smoothing method from the 2016 assumption changes, offset by implementation of employee cost-sharing reducing the employer contribution rate.

The average employee contribution rates were relatively stable from 2010 to 2016, increasing slightly as the Plan's economic assumptions have changed. Average employee contributions rates have continued to increase since 2017 as more new PEPPRA members were hired and cost-sharing contributions have been bargained.



**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
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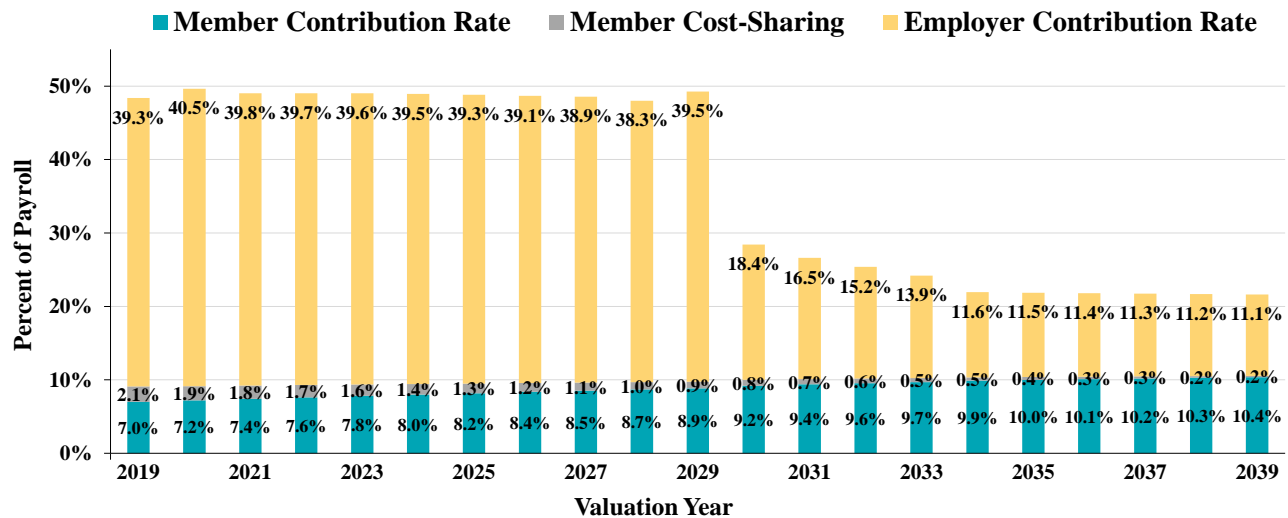
SECTION I – EXECUTIVE SUMMARY

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 39.3% of member payroll for the June 30, 2019 valuation. It is expected to increase to about 40.5% next year, as the assumptions changes from the 2016 valuation are fully phased-in. The employer rate slightly decreases in 2021 to about 39.8% as the asset gains from the 2016-2017 plan year are phased-in and then remain around that level for the next four years. After 2029, the total contribution rate is expected to drop significantly, when the remaining unfunded liability as of June 30, 2013 is fully paid.

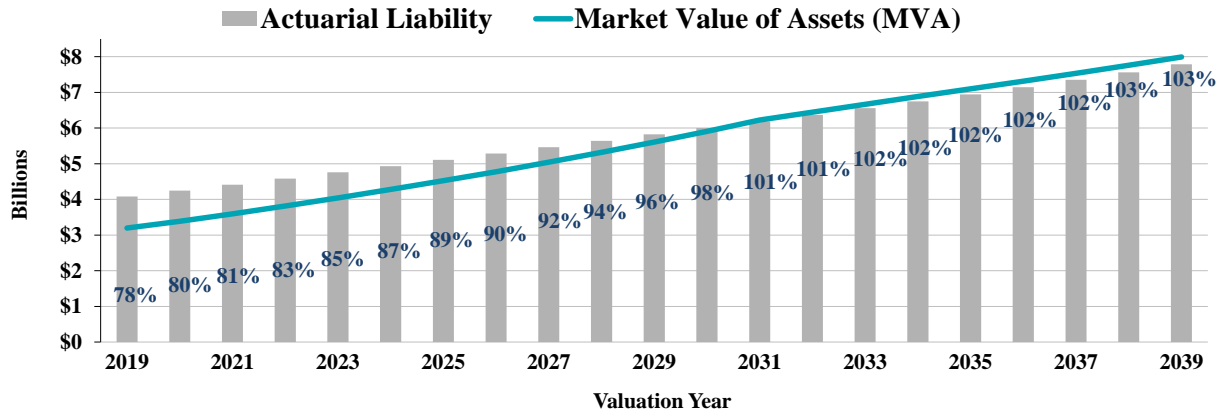
There is a moderate decline projected in the employer normal cost rates, primarily due to the PEPRA members becoming a larger proportion of the active member population over time. PEPRA benefits are lower than the legacy plan benefits and PEPRA employee contribution rates are greater on average than for the legacy plans, since PEPRA members pay 50% of the normal cost rate. However, the employee cost-sharing contributions, bargained for the legacy members only, are projected to decrease as legacy plan members retire.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

SECTION I – EXECUTIVE SUMMARY

Asset and Liability Projections:

In this section, we present our assessment of the implications of the June 30, 2019 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 status increases over the next 15 years and reaches 100% in 2031 assuming that all actuarial assumptions are achieved each year.

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

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
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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 and payroll 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. 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.

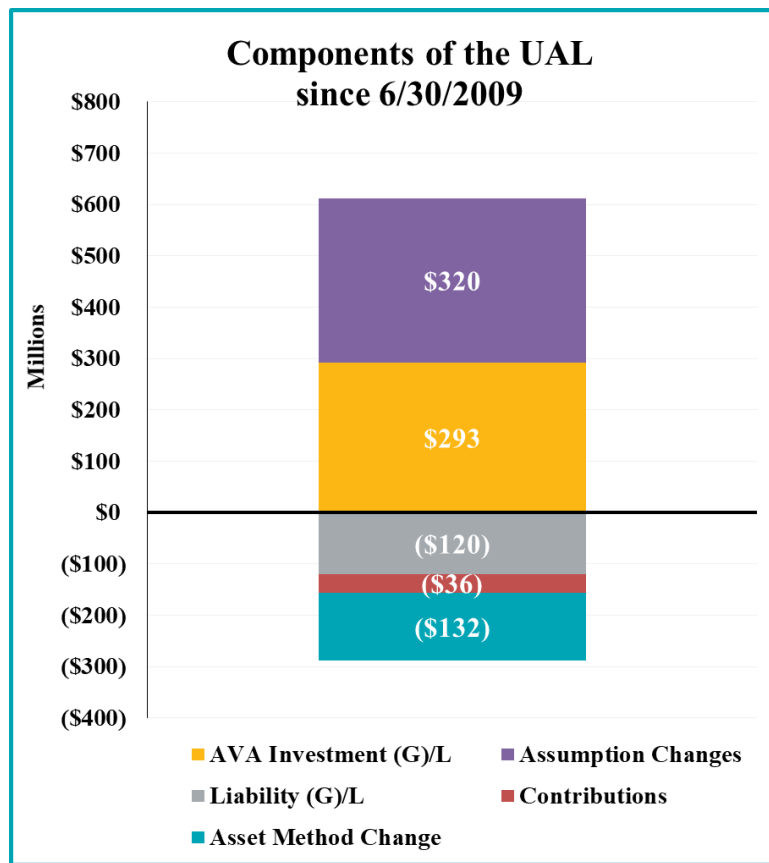
Contribution risk is the potential for actual future contributions to deviate from expected future contributions. There are different sources of contribution risk such as the sponsor choosing to not make contributions in accordance with the funding policy. As another example, the contribution requirement might become a financial strain on the sponsor because of material changes in the contribution base (e.g., covered employees, covered payroll) that affect the amount of contributions the plan can collect.

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SECTION II – DISCLOSURES RELATED TO RISK

The chart below shows the components contributing to the Unfunded Actuarial Liability (UAL) from June 30, 2009 through June 30, 2019. Over the last 10 years, the UAL has increased by approximately \$324 million. The investment losses (gold bar) of \$293 million on the Actuarial Value Of Assets (AVA) and assumptions changes (purple bar) resulting in a total UAL increase of \$320 million are the primary sources in the UAL growth. The net liability gains (gray bar) of \$120 million, asset method change of \$132 million, and contributions in excess of the “tread water” level (red bar, defined later in this section) by \$36 million have decreased the UAL since June 30, 2009.

Chart II-1

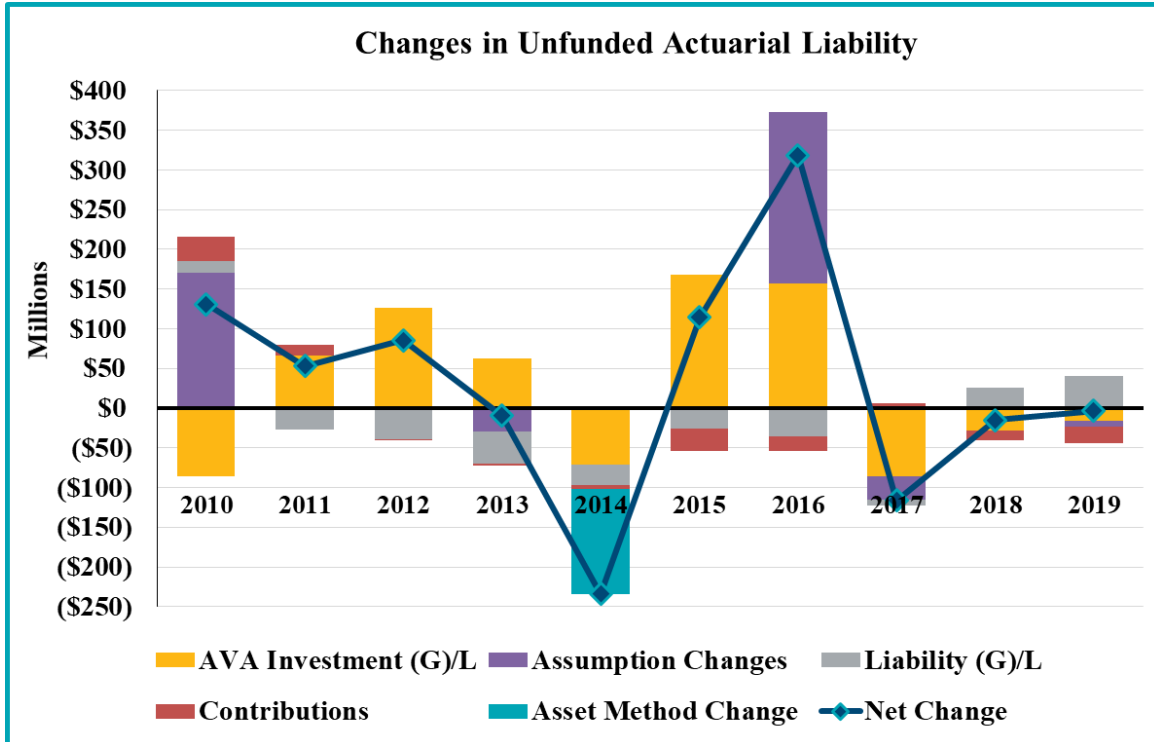


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SECTION II – DISCLOSURES RELATED TO RISK

Chart II-2 below details the annual sources of the UAL change (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.

On a market value and an actuarial value basis, the average annual geometric return over the 10-year period is 8.6% and 6.1% respectively, which has resulted in an equal number of years with investment gains and investment losses on the AVA. However, the actuarial losses were greater than the gains over the period, primarily due to the market performance in FYE 2012, 2015, and 2016 with actual returns between 0.8% – 1.80%, well below the assumed rate of return.

Over the same period, the assumed rate of return decreased from 8.16% 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. Based on RVK’s capital market assumptions and the Plan’s asset allocation, the expected average annual return is about 6.15% compared to the Plan’s current assumption of 7.00%. Other investment consultants’ capital market expectations – including those included in the survey performed by Horizon Actuarial Services – are more optimistic and result in an average expected

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SECTION II – DISCLOSURES RELATED TO RISK

return of approximately 7.0%. Future expectations of investment returns may continue to decline necessitating further reductions in the discount rate.

The impact of all assumption changes is represented by the purple bars and also includes 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 valuation are only demographic changes with no change to the expected rate of return of 7.00%.

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. For the five years prior to this amortization policy change, contributions were below the tread water level and the UAL increased by about \$36 million as a result. However, contributions in excess of the tread water level have paid down the UAL by about \$72 million during the five-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
2010	(\$85,300,000)	\$14,700,000	\$170,700,000	\$30,688,000	\$130,788,000
2011	66,600,000	(27,100,000)	0	13,536,000	53,036,000
2012	125,800,000	(39,300,000)	0	(712,000)	85,788,000
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)
Total	\$292,550,000	(\$119,713,000)	\$187,795,000	(\$36,256,000)	\$324,376,000

¹ Asset Method Change from Actuarial Value to Market Value

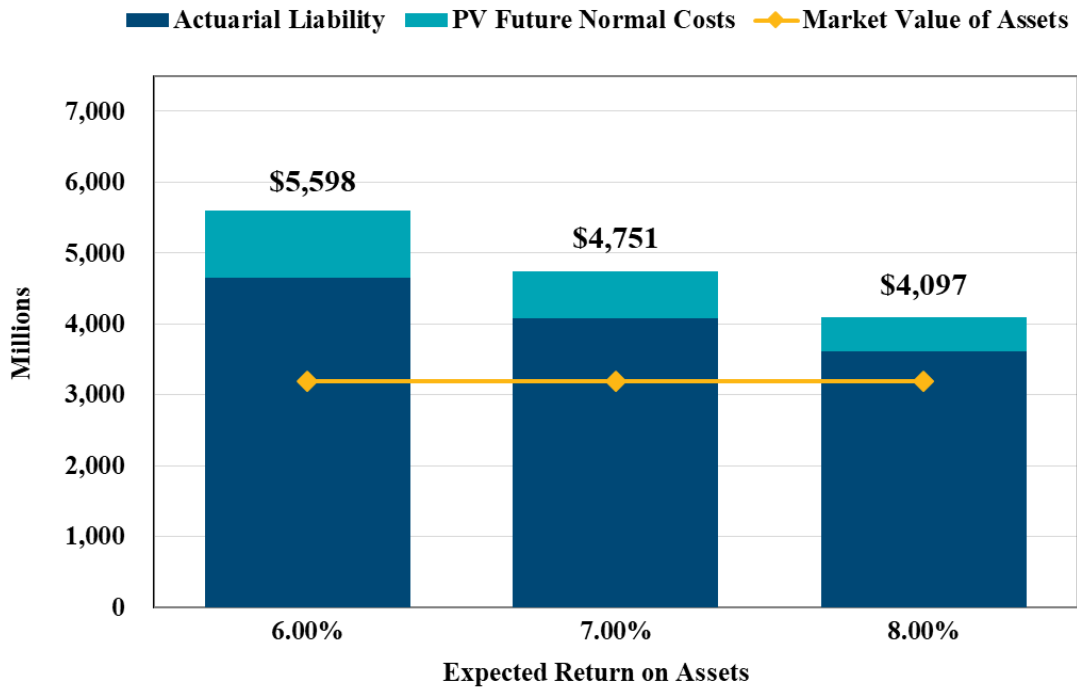
SECTION II – DISCLOSURES RELATED TO RISK

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



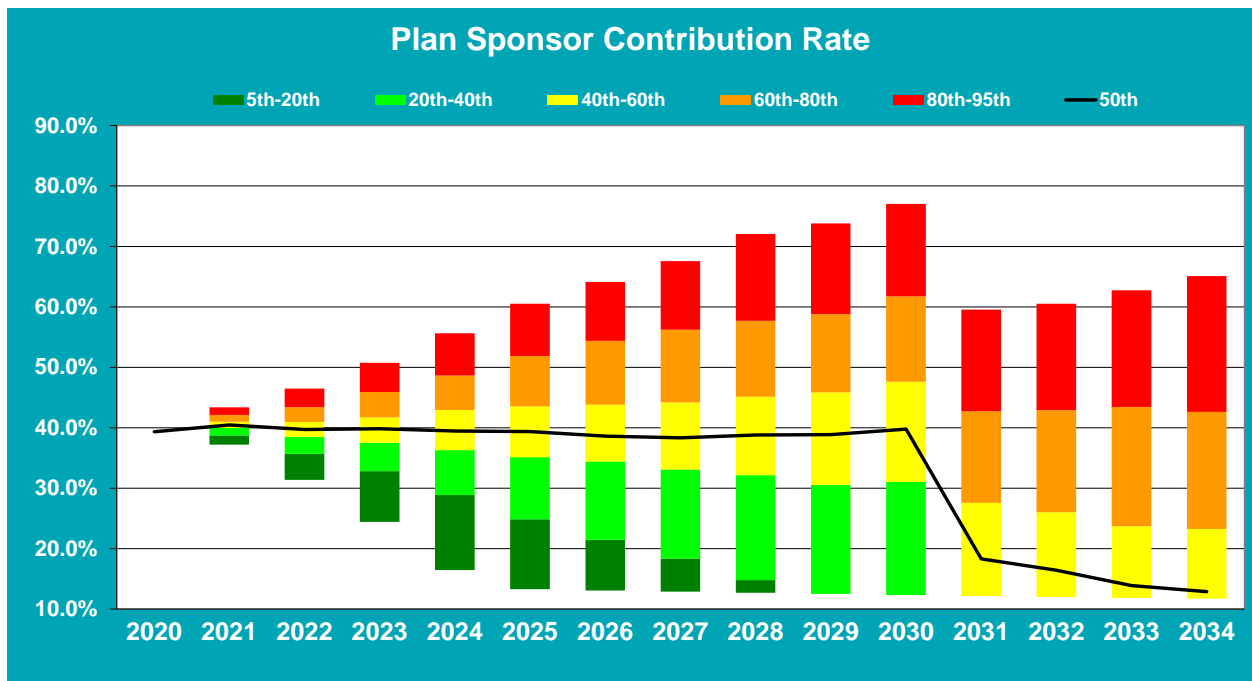
If investments return 7.00% annually, the Plan would need approximately \$4.8 billion in assets today to pay all projected benefits compared to current assets of \$3.2 billion. If investment returns are only 6.00%, the Plan would need approximately \$5.6 billion in assets today, and if investment returns are 8.00%, the Plan would need approximately \$4.1 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 12.2% standard deviation of annual returns).

Stochastic Projection of Employer Contributions as a Percent of Pay

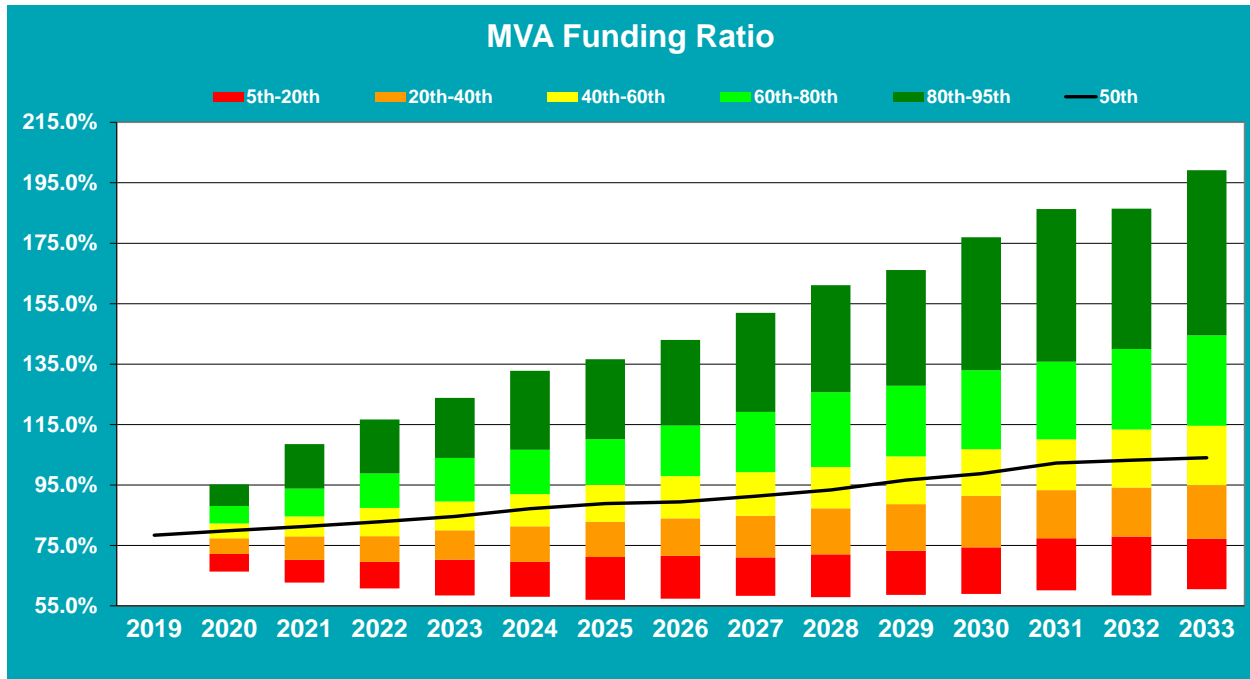


The stochastic projection of employer contributions as a percent of pay shows the probable range of future contribution rates. The baseline contribution rate (black line), which assumes actual investment returns will equal the expected returns of 7.00% each year, aligns with the projections discussed 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 over 75% of pay in 2030. Conversely, in the most optimistic scenario shown, the 5th percentile, the projected employer contribution rate declines to about 12% in 2034 (the minimum allowed under law, since PEPRAs requires that employers contribute an amount at least equal to their share of the normal cost, unless the plan becomes “super” funded).

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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 baseline funded ratio (black line) is projected to be approximately 102% 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 55% 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 declines in payroll have already resulted in their UAL payment as a percentage of payroll reaching 75% of their total employer contribution rate.

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SECTION II – DISCLOSURES RELATED TO RISK

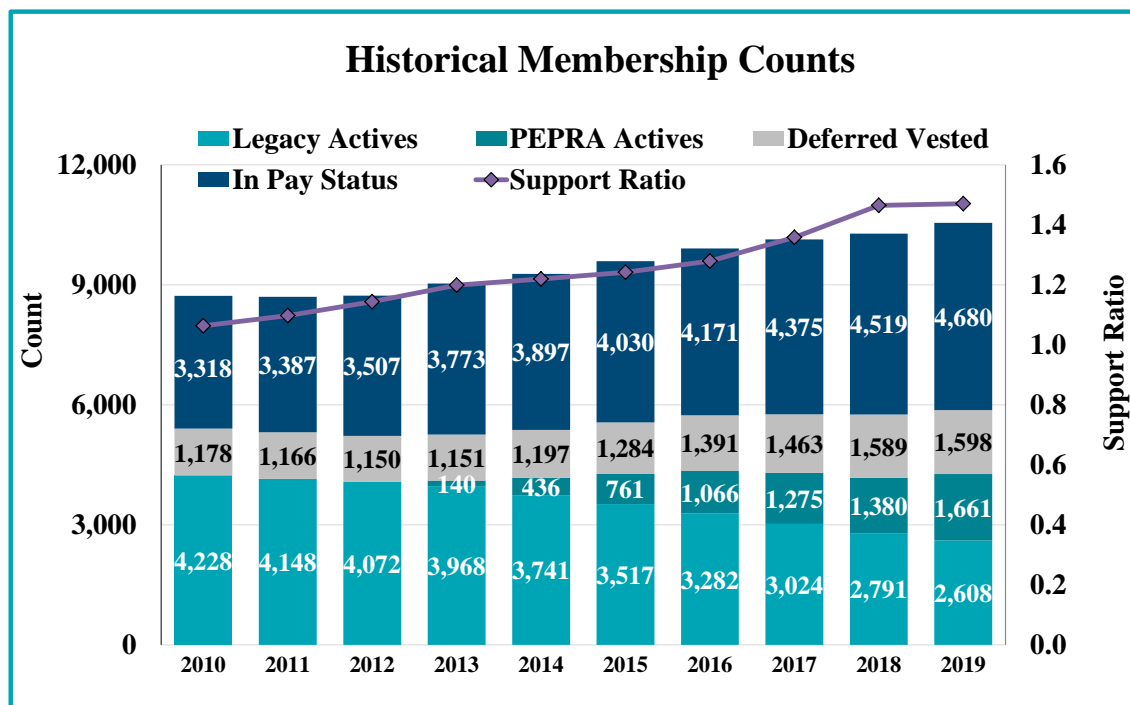
Plan Maturity Measures

The future financial condition of a mature pension plan is more sensitive to each of the risks identified above than a less mature plan. Before assessing each of these risks, it is important to understand the maturity of the plan compared to other plans and how the maturity 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 or inactives – 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 2010 to 2019 as the number of active members has remained relatively consistent, while the number of inactives has increased by almost 40%.

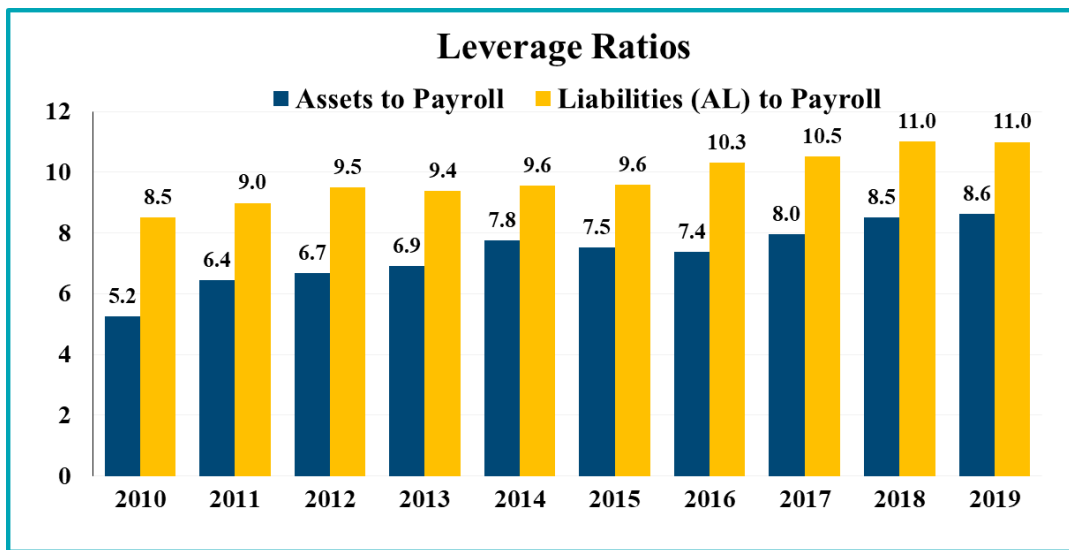


SECTION II – DISCLOSURES RELATED TO RISK

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 gradually increased since 2010.



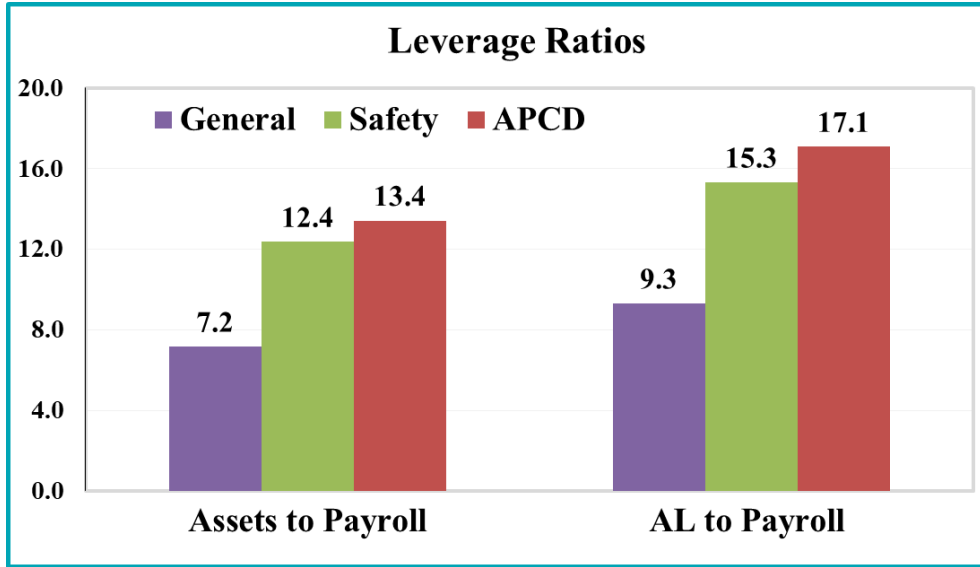
To appreciate the impact of the ratio of assets to payroll on plan cost, consider the situation for a new plan with almost no assets. Even if the assets suffer a bad year of investment returns, the impact on the plan cost is nil, because the asset level is so small.

As the Plan becomes better funded, the asset leverage ratio will increase, and if it was 100% funded, the asset leverage ratio would be 11 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. The APCD members have the highest leverage ratios mainly because their support ratio – inactives to actives – is significantly higher (2.8 compared to 1.5 for both Safety and General), and thus their payroll base is much smaller relative to their asset reserves and liabilities.

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The General asset leverage ratio of 7.2 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 122% of payroll (17.00% times 7.2). Based on the current amortization policy and economic assumptions, the General contribution rate would ultimately increase by about 12.1% of payroll.

The same investment loss for the Safety group with an asset ratio of 12.4 would be equivalent to just under 211% of payroll, or an approximate contribution rate increase of almost 21% of pay. Lastly, the same investment loss for the APCD group with an asset ratio of 13.4 would be equivalent to just under 228% of payroll, or an approximate contribution rate increase of 22.6%. Therefore, the contribution rates for the Safety and APCD members will generally be much more volatile than those of the General members.

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.

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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, 2018 and June 30, 2019,
- 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, 2018 and June 30, 2019.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
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SECTION III – ASSETS

Table III-1		
Statement of Assets at Market Value		
Assets:	June 30, 2018	June 30, 2019
Cash and Cash Equivalents	\$ 3,828,778	\$ 11,718,158
Prepaid Expenses	2,995,776	3,146,682
Receivables:		
Contributions Receivable	5,279,122	5,938,004
Other	0	41,575
Accrued Interest	3,206,555	3,237,621
Dividends	2,251,237	2,627,044
Security Sales	12,395,035	42,359,649
Total Receivables	23,131,950	54,203,894
Investments, at Market Value:		
Short Term Investments	44,584,160	49,528,412
Alternative/Private Equity	268,296,316	309,551,968
Domestic Equity	630,865,819	663,236,246
Domestic Bonds	446,462,811	478,302,061
International Equity	318,202,110	325,951,903
Emerging Market Equity	242,425,237	256,480,480
International Bonds/Non-Core Fixed Income	254,745,917	291,205,270
Real Estate	269,367,748	297,276,440
Real Assets/Real Return	510,621,314	512,180,154
Total Investments	2,985,571,432	3,183,712,934
Other Assets:		
Collateral Held for Securities Lent	23,453,631	(16,043,154)
Total Assets	3,038,981,567	3,236,738,514
Liabilities:		
Accounts Payable	328,091	529,876
Benefits Payable	89,352	12,504,289
Collateral Held for Securities Lent	23,453,631	(16,043,154)
Investment Manager Fees	41	41
Security Purchases	13,091,941	41,613,406
Total Liabilities	36,963,057	38,604,459
Market Value of Assets	\$ 3,002,018,510	\$ 3,198,134,055

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

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, 2018 and June 30, 2019.

Table III-2 Changes in Market Values		
<u>Additions</u>	Fiscal Year ending <u>June 30, 2018</u>	Fiscal Year ending <u>June 30, 2019</u>
Contributions		
Employer's Contribution	\$ 131,374,191	\$ 133,707,646
Members' Contributions	22,533,426	26,604,850
Total Contributions	<u>153,907,617</u>	<u>160,312,495</u>
Net Investment Income		
Net Appreciation/(Depreciation) in		
Fair Value of Investments	191,922,198	197,721,121
Interest	16,660,474	16,413,048
Dividends	21,815,808	21,783,167
Investment Expense	<u>(7,721,068)</u>	<u>(11,636,698)</u>
Net Investment Income	222,677,412	224,280,637
Securities Lending Income		
Securities Lent Income	532,844	677,151
Securities Lent Expense	<u>(127,572)</u>	<u>(319,473)</u>
Net Securities Lending Income	405,272	357,678
Miscellaneous Income		
Net Miscellaneous Income	231,849	204,637
Total Additions	\$ 377,222,150	\$ 385,155,447

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

SECTION III – ASSETS

Table III-2		
Changes in Market Values (Continued)		
	Fiscal Year ending June 30, 2018	Fiscal Year ending June 30, 2019
<u>Deductions</u>		
Benefit payments	\$ 168,377,159	\$ 180,527,571
Refunds of Members' Contributions	1,373,695	1,728,207
Total Benefit Payments	169,750,854	182,255,779
Administrative & Other Expenses		
General Administrative Expenses	5,681,755	6,093,279
Actuary Fees	156,152	96,198
Fund Legal Fees	512,763	594,647
Total Administrative & Other Expenses	6,350,670	6,784,124
Total Deductions	176,101,524	189,039,903
Net increase (Decrease)	201,120,626	196,115,545
Net Assets Held in Trust for Pension Benefits		
Beginning of Year	2,800,897,884	3,002,018,510
End of Year	\$ 3,002,018,510	\$ 3,198,134,055
Expected Return	\$ 195,299,203	\$ 209,152,842
Actual Return	\$ 223,314,534	\$ 224,842,952
Actuarial Gain/(Loss)	28,015,331	15,690,111
Expected Return	7.00%	7.00%
Approximate Return	8.00%	7.53%

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
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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, which is now zero under the new 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, 2018 and June 30, 2019		
	FYE 2018	FYE 2019
Member Deposit Reserve	\$ 203,167,988	\$ 217,069,722
County and District Advance Reserve	1,160,419,055	1,226,580,441
Retired Member Reserve	<u>2,446,878,657</u>	<u>2,610,065,022</u>
Transferred Funds Reserve	<u>191,385,630</u>	<u>205,017,072</u>
	\$ 3,810,465,700	\$ 4,053,715,185
New Market Stabilization Reserve	0	0
Contra Tracking Account	(808,447,190)	(855,581,129)
Total Reserves	\$ 3,002,018,510	\$ 3,198,134,055

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

SECTION III – ASSETS

Historical Investment Performance

The following table shows the historical annual asset returns on a market value as well as the change in the Consumer Price Index (CPI) since 1994.

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 Index¹
1995	17.7%	3.0%
1996	15.6%	2.8%
1997	19.9%	2.3%
1998	18.9%	1.7%
1999	10.5%	2.0%
2000	6.4%	3.7%
2001	-4.3%	3.2%
2002	-5.4%	1.1%
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%
25-Year Geometric Average	7.5%	2.2%

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

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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, 2019				
(in thousands)				
	General	Safety	APCD	Total
1. Member Deposit Reserve	\$ 166,500	\$ 50,202	\$ 367	\$ 217,070
2. County and District Advance Reserve	787,018.90	428,553.84	11,007.70	1,226,580
3. Retired Member Reserve	1,467,617	1,101,845	40,603	2,610,065
4. Transferred Funds Reserve	<u>106,035</u>	<u>96,830</u>	<u>2,153</u>	<u>205,017</u>
5. Total Valuation Reserves (1 + 2 + 3)	\$ 2,421,135	\$ 1,580,601	\$ 51,979	\$ 4,053,715
6. Percentage of Line 5, by Plan	59.7%	39.0%	1.3%	100.0%
7. Market Value of Assets				3,198,134
8. Allocated Market Value of Assets	\$ 1,910,128	\$ 1,246,998	\$ 41,008	\$ 3,198,134

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019

SECTION IV – LIABILITIES

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

- **Disclosure** of System liabilities at June 30, 2018 and June 30, 2019,
- 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**.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
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SECTION IV – LIABILITIES

Table IV-1					
Present Value of Future Benefits and Actuarial Liability					
(in thousands)					
	General	Safety	APCD	June 30, 2019	June 30, 2018
				Total	Total
Present Value of Future Benefits					
Actives	\$ 1,331,723	\$ 791,445	\$ 18,002	\$ 2,141,170	\$ 2,047,931
Terminated Vested	124,103	32,742	3,635	160,480	157,336
Retirees	1,291,407	820,280	32,800	2,144,487	2,018,340
Disabled	48,026	107,813	0	155,839	148,433
Beneficiaries	75,447	71,631	2,351	149,429	139,884
Total SBCERS	\$ 2,870,707	\$ 1,823,911	\$ 56,787	\$ 4,751,405	\$ 4,511,924
Actuarial Liability					
Total Present Value of Benefits	\$ 2,870,707	\$ 1,823,911	\$ 56,787	\$ 4,751,405	\$ 4,511,924
Present Value of Future Normal Costs					
Employer Portion	254,815	193,338	2,647	450,800	432,290
Employee Portion	132,739	85,280	1,948	219,967	191,507
Actuarial Liability	\$ 2,483,153	\$ 1,545,293	\$ 52,192	\$ 4,080,638	\$ 3,888,127
Market Value of Assets	\$ 1,910,128	\$ 1,246,998	\$ 41,008	\$ 3,198,134	\$ 3,002,019
Funded Ratio	76.9%	80.7%	78.6%	78.4%	77.2%
Unfunded Actuarial Liability/(Surplus)	\$ 573,025	\$ 298,295	\$ 11,184	\$ 882,504	\$ 886,109

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

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

SECTION IV – LIABILITIES

Table IV-2 Development of 2019 Experience Gain/(Loss) (in thousands)	
	Cost
1. Unfunded Actuarial Liability (UAL) at June 30, 2018	\$ 886,109
2. Middle of year actuarial liability payment	(80,985)
3. Interest to end of year on 1 and 2	59,241
4. Assumption Changes	<u>(7,455)</u>
5. Expected UAL at June 30, 2019 (1+2+3+4)	\$ 856,910
6. Actual Unfunded Liability at June 30, 2019	<u>882,504</u>
7. Net Gain/(Loss): (5 - 6)	\$ (25,594)
8. Portion of net gain/(loss) due to:	
a. Investment experience gain	\$ 15,690
b. Inactive mortality gain	613
c. Salary increases more than expected	(9,273)
d. Retiree COLAs more than expected	(7,013)
e. Retirement, termination and disability experience loss	(10,970)
f. Inactive and terminated vested member loss	(3,210)
g. New entrant loss	(2,437)
h. Contribution timing lag	114
i. Administrative expenses more than expected	(1,328)
j. Other experience	<u>(7,780)</u>
k. Total gain/(loss)	\$ (25,594)

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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 to comply with the County Employees' Retirement Law of 1937 (the CERL).

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 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 nine remaining years and the outstanding Unfunded Actuarial Liability as of June 30, 2013 over a closed period with 11 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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Table V-1 Development of the Net Employer Contribution Rate as of June 30, 2019 for FYE 2021					
	June 30, 2019				June 30, 2018
	General	Safety	APCD	COMPOSITE	COMPOSITE
1. Total Normal Cost Rate	19.33%	32.82%	19.39%	23.04%	22.55%
2. Member Contribution Rate	<u>6.24%</u>	<u>8.97%</u>	<u>7.45%</u>	7.00%	6.27%
3. Employer Normal Cost Rate (1-2)	13.09%	23.85%	11.94%	16.04%	16.28%
4. UAL Amortization	<u>22.32%</u>	<u>33.19%</u>	<u>35.63%</u>	25.40%	23.74%
5. Employer Contribution Rate (3+4)	35.41%	57.04%	47.57%	41.44%	40.02%
6. Estimated Impact of Employee Cost-Sharing	<u>-1.48%</u>	<u>-3.79%</u>	<u>0.00%</u>	-2.11%	-1.55%
7. Net Employer Contribution Rate (5+6)	33.93%	53.25%	47.57%	39.33%	38.47%
Projected Payroll for FYE 2020	\$ 266,946,853	\$ 100,932,110	\$ 3,057,281	\$ 370,936,244	\$ 353,016,061

Beginning with the June 30, 2013 valuation, the Member and Employer Contribution Rates have been explicitly loaded to account for anticipated administrative expenses. For the June 30, 2019 actuarial valuation, a load of 3.1% has been applied to the Employee Rates and a load of 3.00% has been applied to the Employer Rates.

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The table below presents the calculation of the UAL payments of the System as a dollar amount and as a percentage of pay under the amortization policy. The total UAL payment of the System is 25.40% as a percentage of pay, which is not the sum of the individual amortization bases, since the Safety Plan 6 UAL of 4.88% is paid only for members under Safety Plan 6. Once the (Gain)/Loss and Assumption bases are fully phased-in, the UAL payment from these sources will be 26.46% of pay.

If the UAL payment below of \$91,430,627 is calculated based on a single-equivalent period with the June 30, 2019 UAL of \$882,504,438, the number of years to fully pay off the unfunded would be 12 years.

**Table V-2
Development of Amortization Payment
For the June 30, 2019 Actuarial Valuation**

Type of Base	Date Established	Initial Amount	Initial Amortization Years	June 30, 2019 Outstanding Balance	Remaining Amortization Years	Current Phase-In/Out Percentage	Amortization Amount	% of Pay ²	% of Pay After Phase-In ²
1. Safety Plan 6 Base ¹	6/30/2011	\$ 12,800,000	17	\$ 11,477,835	9	N/A	\$ 1,528,960	4.88%	4.88%
2. Remaining UAL	6/30/2013	803,940,900	17	700,298,272	11	N/A	79,098,374	21.96%	21.96%
3. (Gain)/Loss Base	6/30/2014	(227,291,825)	19	(241,000,686)	14	100%	(25,460,955)	-7.07%	-7.07%
4. (Gain)/Loss Base	6/30/2015	137,382,857	19	149,875,535	15	100%	14,870,985	4.13%	4.13%
5. (Gain)/Loss Base	6/30/2016	117,812,662	19	129,086,165	16	80%	9,858,596	2.74%	3.42%
6. Assumption Changes	6/30/2016	215,838,077	19	236,491,642	16	80%	18,061,390	5.02%	6.27%
7. (Gain)/Loss Base	6/30/2017	(83,693,202)	19	(90,632,611)	17	60%	(5,099,614)	-1.42%	-2.36%
8. Assumption Change	6/30/2017	(29,683,810)	19	(32,145,039)	17	60%	(1,808,701)	-0.50%	-0.84%
9. (Gain)/Loss Base	6/30/2018	869,981	19	913,651	18	40%	34,311	0.01%	0.02%
10. (Gain)/Loss Base	6/30/2019	25,594,711	19	25,594,711	19	20%	490,006	0.14%	0.68%
11. Assumption Change	6/30/2019	(7,455,037)	19	<u>(7,455,037)</u>	19	20%	<u>(142,725)</u>	-0.04%	-0.20%
Total				\$ 882,504,438			\$ 91,430,627	25.40%	26.46%

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

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

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

Table V-2(a) General Development of Amortization Payment For the June 30, 2019 Actuarial Valuation								
	Date	Initial Amortization Years	June 30, 2019 Outstanding Balance	Remaining Amortization Years	Current Phase-In/Out Percentage	Amortization Amount	% of Pay ¹	% of Pay After Phase-In ¹
1. Remaining UAL	6/30/2013	17	436,511,076	11	N/A	49,303,729	19.02%	19.02%
2. (Gain)/Loss Base	6/30/2014	19	(140,034,288)	14	100%	(14,794,177)	-5.71%	-5.71%
3. (Gain)/Loss Base	6/30/2015	19	94,878,889	15	100%	9,414,095	3.63%	3.63%
4. (Gain)/Loss Base	6/30/2016	19	81,186,592	16	80%	6,200,400	2.39%	2.99%
5. Assumption Changes	6/30/2016	19	152,670,561	16	80%	11,659,789	4.50%	5.62%
6. (Gain)/Loss Base	6/30/2017	19	(56,529,241)	17	60%	(3,180,724)	-1.23%	-2.05%
7. Assumption Change	6/30/2017	19	(20,161,147)	17	60%	(1,134,405)	-0.44%	-0.73%
8. (Gain)/Loss Base	6/30/2018	19	(4,746,836)	18	40%	(178,259)	-0.07%	-0.17%
9. (Gain)/Loss Base	6/30/2019	19	11,192,797	19	20%	214,284	0.08%	0.41%
10. Assumption Change	6/30/2019	19	18,056,263	19	20%	345,684	0.13%	0.67%
Total			\$ 573,024,666			\$ 57,850,416	22.32%	23.69%

¹ Includes explicit administrative expense load.

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**Table V-2(b) Safety
Development of Amortization Payment
For the June 30, 2019 Actuarial Valuation**

Type of Base	Date Established	Initial Amortization Years	June 30, 2019 Outstanding Balance	Remaining Amortization Years	Current Phase-In/Out Percentage	Amortization Amount	% of Pay ²	% of Pay After Phase-In ²
1. Safety Plan 6 Base ¹	6/30/2011	17	\$ 11,477,835	9	N/A	\$ 1,528,960	4.88%	4.88%
2. Remaining UAL	6/30/2013	17	255,184,433	11	N/A	28,822,967	29.41%	29.41%
3. (Gain)/Loss Base	6/30/2014	19	(98,236,514)	14	100%	(10,378,375)	-10.59%	-10.59%
4. (Gain)/Loss Base	6/30/2015	19	52,823,912	15	100%	5,241,306	5.35%	5.35%
5. (Gain)/Loss Base	6/30/2016	19	47,717,155	16	80%	3,644,265	3.72%	4.65%
6. Assumption Changes	6/30/2016	19	80,990,665	16	80%	6,185,436	6.31%	7.89%
7. (Gain)/Loss Base	6/30/2017	19	(32,078,213)	17	60%	(1,804,941)	-1.84%	-3.07%
8. Assumption Change	6/30/2017	19	(11,597,713)	17	60%	(652,567)	-0.67%	-1.11%
9. (Gain)/Loss Base	6/30/2018	19	4,807,753	18	40%	180,547	0.18%	0.46%
10. (Gain)/Loss Base	6/30/2019	19	13,223,176	19	20%	253,155	0.26%	1.29%
11. Assumption Change	6/30/2019	19	<u>(26,017,368)</u>	19	20%	<u>(498,098)</u>	-0.51%	-2.54%
Total			\$ 298,295,121			\$ 32,522,656	33.19%	33.30%

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

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

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**Table V-2(c) APCD
Development of Amortization Payment
For the June 30, 2019 Actuarial Valuation**

Type of Base	Date Established	Initial Amortization Years	June 30, 2019 Outstanding Balance	Remaining Amortization Years	Current Phase-In/Out Percentage	Amortization Amount	% of Pay ¹	% of Pay After Phase-In ¹
1. Remaining UAL	6/30/2013	17	8,602,764	11	N/A	971,678	32.74%	32.74%
2. (Gain)/Loss Base	6/30/2014	19	(2,729,883)	14	100%	(288,403)	-9.72%	-9.72%
3. (Gain)/Loss Base	6/30/2015	19	2,172,734	15	100%	215,584	7.26%	7.26%
4. (Gain)/Loss Base	6/30/2016	19	182,419	16	80%	13,932	0.47%	0.59%
5. Assumption Changes	6/30/2016	19	2,830,415	16	80%	216,165	7.28%	9.10%
6. (Gain)/Loss Base	6/30/2017	19	(2,025,158)	17	60%	(113,949)	-3.84%	-6.40%
7. Assumption Change	6/30/2017	19	(386,180)	17	60%	(21,729)	-0.73%	-1.22%
8. (Gain)/Loss Base	6/30/2018	19	852,734	18	40%	32,023	1.08%	2.70%
9. (Gain)/Loss Base	6/30/2019	19	1,178,738	19	20%	22,567	0.76%	3.80%
10. Assumption Change	6/30/2019	19	<u>506,068</u>	19	20%	<u>9,689</u>	0.33%	1.63%
Total			\$ 11,184,651			\$ 1,057,555	35.63%	40.48%

¹ Includes explicit administrative expense load.

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As discussed earlier, a portion of the UAL attributable to the implementation of Safety Plan 6 is being amortized over a separate period from the rest of UAL. Beginning with the 2011 actuarial valuation, the outstanding balance of the Safety Plan 6 UAL is being amortized over a closed 17-year period; nine 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 Rates	
June 30, 2019 Plan 6 Layer	\$ 11,477,835
9-year amortization factor	0.133210
Safety Plan 6 payroll	\$ 32,283,793
Middle of year payment	1,528,960
Extra Plan 6 UAL Amortization Rate	4.74%
- including Administrative Expense Load	4.88%
Safety UAL less Extra Plan 6	\$ 286,817,287
Middle of year payment	30,993,696
Total Safety Payroll	100,932,110
UAL Rate without Extra Plan 6	30.71%
- including Administrative Expense Load	31.63%
UAL Rate - Plan 6 including Admin Expense Load	36.51%

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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, 2019 for FYE 2021								
	5A	5B	5C	Plan 2	Plan 7	PEPRA		Total
						2% COLA	3% COLA	
Current Year								
A. Basic Employer Normal Cost Rate	10.23%	9.29%	11.56%	3.63%	12.44%	7.01%	7.26%	9.46%
B. COLA Normal Cost Rate	<u>4.51%</u>	<u>5.45%</u>	<u>4.95%</u>	<u>0.00%</u>	<u>3.44%</u>	<u>1.41%</u>	<u>2.08%</u>	<u>3.62%</u>
C. Employer Normal Cost Rate	14.74%	14.74%	16.51%	3.63%	15.88%	8.42%	9.34%	13.09%
D. Basic UAL Contribution Rate	15.63%	15.63%	15.63%	15.63%	15.63%	15.63%	15.63%	15.63%
E. COLA UAL Contribution Rate	<u>6.69%</u>	<u>6.69%</u>	<u>6.69%</u>	<u>6.69%</u>	<u>6.69%</u>	<u>6.69%</u>	<u>6.69%</u>	<u>6.69%</u>
F. UAL Contribution Rate	22.32%	22.32%	22.32%	22.32%	22.32%	22.32%	22.32%	22.32%
G. Total June 30, 2019 Contribution Rate (C+F)	37.06%	37.06%	38.83%	25.95%	38.20%	30.74%	31.66%	35.41%
Projected Payroll for FYE 2020 (in thousands)	\$ 33,042	\$ 36,920	\$ 88,182	\$ 497	\$ 10,770	\$ 91,886	\$ 5,650	\$ 266,947
Prior Year								
A. Basic Employer Normal Cost Rate	10.34%	9.60%	11.66%	3.40%	12.05%	6.94%	7.25%	9.74%
B. COLA Normal Cost Rate	<u>4.36%</u>	<u>5.25%</u>	<u>4.78%</u>	<u>0.00%</u>	<u>3.26%</u>	<u>1.38%</u>	<u>2.06%</u>	<u>3.70%</u>
C. Employer Normal Cost Rate	14.70%	14.85%	16.44%	3.40%	15.31%	8.32%	9.31%	13.44%
D. Basic UAL Contribution Rate	14.59%	14.59%	14.59%	14.59%	14.59%	14.59%	14.59%	14.59%
E. COLA UAL Contribution Rate	<u>6.12%</u>	<u>6.12%</u>	<u>6.12%</u>	<u>6.12%</u>	<u>6.12%</u>	<u>6.12%</u>	<u>6.12%</u>	<u>6.12%</u>
F. UAL Contribution Rate	20.71%	20.71%	20.71%	20.71%	20.71%	20.71%	20.71%	20.71%
G. Total June 30, 2018 Contribution Rate (C+F)	35.41%	35.56%	37.15%	24.11%	36.02%	29.03%	30.02%	34.15%
Projected Payroll for FYE 2019 (in thousands)	\$ 37,848	\$ 36,065	\$ 92,066	\$ 436	\$ 10,017	\$ 73,865	\$ 4,222	\$ 254,520

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Table V-5							
Development of the Safety Net Employer Contribution Rate as of June 30, 2019 for FYE 2021							
	4A	4B	4C	6A	6B	PEPRA	Total
Current Year							
A. Basic Employer Normal Cost Rate	18.48%	17.45%	17.46%	21.15%	19.36%	11.18%	16.32%
B. COLA Normal Cost Rate	<u>8.77%</u>	<u>10.12%</u>	<u>8.57%</u>	<u>9.19%</u>	<u>9.61%</u>	<u>3.95%</u>	<u>7.53%</u>
C. Employer Normal Cost Rate	27.25%	27.57%	26.03%	30.34%	28.97%	15.13%	23.85%
D. Basic UAL Contribution Rate	20.76%	20.76%	20.76%	23.96%	23.96%	20.76%	21.79%
E. COLA UAL Contribution Rate	<u>10.87%</u>	<u>10.87%</u>	<u>10.87%</u>	<u>12.55%</u>	<u>12.55%</u>	<u>10.87%</u>	<u>11.40%</u>
F. UAL Contribution Rate	31.63%	31.63%	31.63%	36.51%	36.51%	31.63%	33.19%
G. Total June 30, 2019 Contribution Rate (C+F)	58.88%	59.20%	57.66%	66.85%	65.48%	46.76%	57.04%
Projected Payroll for FYE 2020 (in thousands)	\$ 4,363	\$ 1,813	\$ 32,745	\$ 4,879	\$ 27,405	\$ 29,727	\$ 100,932
Prior Year							
A. Basic Employer Normal Cost Rate	18.04%	15.91%	17.16%	20.87%	19.71%	10.61%	16.40%
B. COLA Normal Cost Rate	<u>8.20%</u>	<u>9.25%</u>	<u>8.21%</u>	<u>8.94%</u>	<u>9.58%</u>	<u>3.73%</u>	<u>7.49%</u>
C. Employer Normal Cost Rate	26.24%	25.16%	25.37%	29.81%	29.29%	14.34%	23.89%
D. Basic UAL Contribution Rate	19.63%	19.63%	19.63%	22.81%	22.81%	19.63%	20.68%
E. COLA UAL Contribution Rate	<u>10.22%</u>	<u>10.22%</u>	<u>10.22%</u>	<u>11.88%</u>	<u>11.88%</u>	<u>10.22%</u>	<u>10.78%</u>
F. UAL Contribution Rate	29.85%	29.85%	29.85%	34.69%	34.69%	29.85%	31.46%
G. Total June 30, 2018 Contribution Rate (C+F)	56.09%	55.01%	55.22%	64.50%	63.98%	44.19%	55.35%
Projected Payroll for FYE 2019 (in thousands)	\$ 5,585	\$ 1,719	\$ 32,171	\$ 4,986	\$ 26,742	\$ 24,593	\$ 95,796

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Table V-6				
Development of the APCD Net Employer Contribution Rate as of June 30, 2019 for FYE 2021				
	Plan 1	Plan 2	PEPRA	Total
Current Year				
A. Basic Employer Normal Cost Rate	10.83%	8.23%	6.01%	8.10%
B. COLA Normal Cost Rate	<u>4.95%</u>	<u>5.56%</u>	<u>1.27%</u>	<u>3.84%</u>
C. Employer Normal Cost Rate	15.78%	13.79%	7.28%	11.94%
D. Basic UAL Contribution Rate	24.87%	24.87%	24.87%	24.87%
E. COLA UAL Contribution Rate	<u>10.76%</u>	<u>10.76%</u>	<u>10.76%</u>	<u>10.76%</u>
F. UAL Contribution Rate	35.63%	35.63%	35.63%	35.63%
G. Total June 30, 2019 Contribution Rate (C+F)	51.41%	49.42%	42.91%	47.57%
Projected Payroll for FYE 2020 (in thousands)	\$ 825	\$ 1,123	\$ 1,110	\$ 3,057
Prior Year				
A. Basic Employer Normal Cost Rate	10.97%	9.45%	6.14%	8.96%
B. COLA Normal Cost Rate	<u>4.77%</u>	<u>5.54%</u>	<u>1.27%</u>	<u>4.17%</u>
C. Employer Normal Cost Rate	15.74%	14.99%	7.41%	13.13%
D. Basic UAL Contribution Rate	25.11%	25.11%	25.11%	25.12%
E. COLA UAL Contribution Rate	<u>10.39%</u>	<u>10.39%</u>	<u>10.39%</u>	<u>10.38%</u>
F. UAL Contribution Rate	35.50%	35.50%	35.50%	35.50%
G. Total June 30, 2018 Contribution Rate (C+F)	51.24%	50.49%	42.91%	48.63%
Projected Payroll for FYE 2019 (in thousands)	\$ 759	\$ 1,210	\$ 732	\$ 2,700

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Table V-7 Development of the PEPPRA Member and Net Employer Contribution Rates as of June 30, 2019 for FYE 2021				
	General		Safety	APCD
	2% COLA	3% COLA		
Current Year				
Basic Member Contribution Rate	7.02%	7.26%	11.19%	6.00%
COLA Member Contribution Rate	<u>1.41%</u>	<u>2.08%</u>	<u>3.95%</u>	<u>1.27%</u>
Member Contribution Rate	8.43%	9.34%	15.14%	7.27%
Basic Employer Normal Cost Rate	7.01%	7.26%	11.18%	6.01%
COLA Employer Normal Cost Rate	<u>1.41%</u>	<u>2.08%</u>	<u>3.95%</u>	<u>1.27%</u>
Employer Normal Cost Rate	8.42%	9.34%	15.13%	7.28%
Basic UAL Contribution Rate	15.63%	15.63%	20.76%	24.87%
COLA UAL Contribution Rate	<u>6.69%</u>	<u>6.69%</u>	<u>10.87%</u>	<u>10.76%</u>
Employer UAL Contribution Rate	22.32%	22.32%	31.63%	35.63%
Employer Contribution Rate	30.74%	31.66%	46.76%	42.91%
Prior Year				
Basic Member Contribution Rate	6.93%	7.24%	10.62%	6.14%
COLA Member Contribution Rate	<u>1.38%</u>	<u>2.06%</u>	<u>3.73%</u>	<u>1.27%</u>
Member Contribution Rate	8.31%	9.30%	14.35%	7.41%
Basic Employer Normal Cost Rate	6.93%	7.24%	10.62%	6.14%
COLA Employer Normal Cost Rate	<u>1.38%</u>	<u>2.06%</u>	<u>3.73%</u>	<u>1.27%</u>
Employer Normal Cost Rate	8.31%	9.30%	14.35%	7.41%
Basic UAL Contribution Rate	14.59%	14.59%	19.63%	25.11%
COLA UAL Contribution Rate	<u>6.12%</u>	<u>6.12%</u>	<u>10.22%</u>	<u>10.39%</u>
Employer UAL Contribution Rate	20.71%	20.71%	29.85%	35.50%
Employer Contribution Rate	29.02%	30.01%	44.20%	42.91%

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

**SECTION VI – COMPREHENSIVE ANNUAL FINANCIAL REPORTING
INFORMATION**

The GASB adopted Statement Nos. 67 and 68, which replaced GASB Statement Nos. 25 and 27. 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, 2019.

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

**Table VI-1
SCHEDULE OF FUNDED LIABILITIES BY TYPE
(dollars in thousands)**

Valuation Date June 30,	(A)	(B)	(C)	Reported Assets ¹	Portion of Actuarial Liabilities Covered by Reported Assets		
	Active Member Contributions	Retirees And Beneficiaries	Remaining Active Members' Liabilities		(A)	(B)	(C)
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%
2012 ²	165,623	1,660,773	1,047,987	2,046,641	100%	100%	21%
2011	165,774	1,559,716	1,024,324	2,007,859	100%	100%	28%
2010	162,432	1,483,728	969,987	1,927,229	100%	100%	29%

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

² June 30, 2012 and earlier numbers calculated by prior actuary.

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, liabilities are discounted at the assumed valuation interest rate of 7.00%.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

**SECTION VI – COMPREHENSIVE ANNUAL FINANCIAL REPORTING
INFORMATION**

Table VI-II ACTUARIAL ANALYSIS OF FINANCIAL EXPERIENCE (dollars in thousands)	
Unfunded Actuarial Liability (UAL) as of June 30, 2018	\$ 886,109
Expected Change in UAL	(21,744)
Assumption Changes	(7,455)
Actuarial (Gains) or Losses During the Year	
Asset Return (Greater) or Less than Expected	\$ (15,690)
New Entrants	2,437
Salary Increases Greater or (Less) than Expected	9,273
All Other (Including Demographic Experience)	<u>29,574</u>
Total Changes	\$ (3,605)
Unfunded Actuarial Liability (UAL) as of June 30, 2019	\$ 882,504

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

The data for this valuation was provided by the System staff as of June 30, 2019. 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, 2018 and 2019	2018	2019
Members Now Receiving Benefits		
Service Retirement	3,683	3,815
Disability Retirement	267	271
Beneficiaries and Survivors	569	594
Subtotal	4,519	4,680
Active Members		
Active Vested Members	2,936	2,983
Active Nonvested Members	1,235	1,286
Subtotal	4,171	4,269
Deferred Vested and Inactive Members	1,589	1,598
Total Membership	10,279	10,547

Schedule of Average Benefit Payments

June 30, 2019	Years in Pay Status					
	0-9	10-14	15-19	20-24	25-29	30+
Average Monthly Benefit	\$3,566	\$3,448	\$3,198	\$2,919	\$2,566	\$2,261
Average Annual Benefit	42,792	41,376	38,376	35,028	30,792	27,132
Number of Members in Pay Status	2,365	912	632	360	195	216

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

Schedule of Active Member Valuation Data

Valuation Date	Plan	Active Members	Annual Salary ¹	Average ¹	% Increase in Average Salary
June 30, 2019	General	3,293	\$ 254,877,894	77,400	0.87%
	Safety	944	95,991,720	101,686	3.23%
	APCD	32	2,917,484	91,171	5.77%
	Total	4,269	\$ 353,787,098	82,874	1.50%

¹Based on salary data provided in the June 30, 2019 valuation data for FYE 2019.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

Schedule of Retirees & Beneficiaries Added to and Removed from Retirement Payroll

Fiscal Year	Added to rolls		Removed from rolls		Rolls at end of year		% Increase in Retiree Allowance	Average Annual Allowance
	Number	Annual Allowance ¹	Number	Annual Allowance	Number	Annual Allowance		
2009	239	\$ 8,842,975	-94	\$ (2,084,942)	3,117	\$ 92,275,326	11.1%	\$ 29,604
2010	301	\$ 13,005,361	-100	\$ 2,443,989	3,318	\$ 104,978,781	13.8%	\$ 31,639
2011	192	\$ 5,922,775	-123	\$ 2,942,348	3,387	\$ 110,219,174	5.0%	\$ 32,542
2012	226	\$ 9,082,861	-106	\$ 2,884,973	3,507	\$ 118,545,000	7.6%	\$ 33,802
2013	364 ²	\$ 8,811,248	-98	\$ 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%	\$ 34,069
2015	241	\$ 9,044,486	-108	\$ 2,627,746	4,030	\$ 141,193,001	6.3%	\$ 35,016
2016	244	\$ 9,705,939	-103	\$ 2,534,190	4,171	\$ 149,683,889	6.0%	\$ 35,886
2017	314	\$ 13,124,187	-110	\$ 3,255,813	4,375	\$ 162,510,138	8.6%	\$ 37,146
2018	270	\$ 10,896,350	-126	\$ 3,280,607	4,519	\$ 174,765,068	7.5%	\$ 38,673
2019	294	\$ 12,466,673	-133	\$ 4,484,686	4,680	\$ 187,679,334	7.4%	\$ 40,102

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.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

SBCERS Membership - Active Members as of June 30, 2019

Group	Count	Annual Salary ¹	Average Age	Average Monthly Salary ¹	Average Vesting Service
General Members					
Plan 2	7	\$481,000	60.3	\$5,726	30.6
Plan 5A	372	\$31,739,000	56.4	\$7,110	27.5
Plan 5B	308	\$35,333,000	49.6	\$9,560	15.5
Plan 5C	1,171	\$83,915,000	48.9	\$5,972	15.4
Plan 7	109	\$10,273,000	42.6	\$7,854	10.8
PEPRA	<u>1,326</u>	<u>\$93,137,000</u>	38.5	\$5,853	2.9
Total	3,293	\$254,878,000	45.4	\$6,450	11.6
APCD Members					
Plan 1	8	\$798,000	59.0	\$8,313	29.8
Plan 2	10	\$1,079,000	42.8	\$8,992	10.8
PEPRA	<u>14</u>	<u>\$1,041,000</u>	32.6	\$6,196	2.5
Total	32	\$2,917,000	42.4	\$7,596	11.9
Safety Members					
Plan 4A	32	\$4,143,000	52.4	\$10,789	21.9
Plan 4B	13	\$1,746,000	52.1	\$11,192	23.5
Plan 4C	292	\$31,450,000	44.8	\$8,975	16.3
Plan 6A	35	\$4,702,000	53.1	\$11,195	29.0
Plan 6B	251	\$26,252,000	44.2	\$8,716	15.4
PEPRA	<u>321</u>	<u>\$27,700,000</u>	33.2	\$7,191	3.0
Total	944	\$95,992,000	41.4	\$8,474	12.3
Total Actives	4,269	\$353,787,000	44.5	\$6,906	11.8

¹Based on salary data provided in the June 30, 2019 valuation data for FYE 2019.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

SBCERS Membership - Schedule of Active Member Valuation Data

Valuation Date	Plan	Count	Annual Salary¹	Average Annual Salary¹	Increase in Average Salary
June 30, 2013	General	3,161	\$216,968,000	\$68,639	-2.11%
	APCD	43	3,344,000	\$77,767	2.94%
	Safety	<u>904</u>	<u>81,004,000</u>	\$89,606	0.17%
	Total	4,108	\$301,316,000	\$73,349	-1.39%
June 30, 2014	General	3,226	\$221,733,000	\$68,733	0.14%
	APCD	41	3,335,000	\$81,341	4.60%
	Safety	<u>910</u>	<u>83,659,000</u>	\$91,933	2.60%
	Total	4,177	\$308,727,000	\$73,911	0.77%
June 30, 2015	General	3,307	\$231,757,487	\$70,081	1.96%
	APCD	40	3,079,706	\$76,993	-5.35%
	Safety	<u>931</u>	<u>86,077,154</u>	\$92,457	0.57%
	Total	4,278	\$320,914,347	\$75,015	1.49%
June 30, 2016	General	3,394	\$241,729,055	\$71,222	1.63%
	APCD	38	2,979,643	\$78,412	1.84%
	Safety	<u>916</u>	<u>86,041,656</u>	\$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>	<u>91,187,124</u>	\$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>	<u>91,508,536</u>	\$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%

¹ Based on salary data provided in the for Fiscal Year End of Valuation Date.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

SBCERS Membership – Deferred Vested Members as of June 30, 2019

SBCERS Membership Deferred Vested and Inactive Members as of June 30, 2019		
Group	Count	Average Age
General Members		
Plan 2	18	58.6
Plan 5A	148	56.1
Plan 5B	445	49.9
Plan 5C	345	45.2
Plan 7	57	42.1
PEPRA	<u>328</u>	38.8
Total	1,341	46.4
APCD Members		
Plan 1	7	57.6
Plan 2	11	38.4
PEPRA	<u>7</u>	33.4
Total	25	42.4
Safety Members		
Plan 4A	4	48.8
Plan 4B	46	47.5
Plan 4C	40	43.0
Plan 6A	21	55.4
Plan 6B	62	39.9
PEPRA	<u>59</u>	33.9
Total	232	42.0
Total Inactives	1,598	45.7

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

SBCERS Membership – Retired Members as of June 30, 2019

Group	Count	Average Current Age	Average Retirement Age ¹	Monthly Allowances	Average Monthly Benefit
General Members					
Plan 1	713	83.0	57.8	\$1,270,000	\$1,782
Plan 2	68	70.6	60.9	49,000	718
Plan 3	6	66.7	56.4	7,000	1,159
Plan 4A	183	76.8	59.2	458,000	2,503
Plan 4B	4	73.8	55.6	1,000	298
Plan 5A	1,683	68.4	59.4	6,044,000	3,591
Plan 5B	363	67.6	60.8	689,000	1,898
Plan 5C	444	65.8	62.1	918,000	2,068
Plan 7	3	64.7	62.0	2,000	542
Total	<u>3,467</u>	71.5	59.7	<u>\$9,438,000</u>	\$2,722
APCD Members					
Plan 1	51	66.9	58.1	\$178,000	\$3,485
Plan 2	15	66.4	60.8	33,000	2,192
Total	<u>66</u>	66.8	58.8	<u>\$211,000</u>	\$3,197
Safety Members					
Plan 1	277	77.1	55.0	\$1,250,000	\$4,513
Plan 2	21	76.0	54.6	52,000	2,453
Plan 3	4	67.0	55.3	16,000	4,011
Plan 4A	292	66.7	56.1	2,137,000	7,318
Plan 4B	104	67.4	56.4	315,000	3,031
Plan 4C	103	62.5	58.4	380,000	3,693
Plan 4D	2	64.0	63.0	8,000	3,873
Plan 6A	258	60.0	53.5	1,537,000	5,955
Plan 6B	86	55.6	55.8	297,000	3,459
Total	<u>1,147</u>	66.7	55.5	<u>\$5,991,000</u>	\$5,223
Total in Pay Status	4,680	70.3	58.7	\$15,640,000	\$3,342

¹ For healthy retired members only, excludes disabled members and beneficiaries.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

SBCERS Membership – Retired Members as of June 30, 2019

	Count	Monthly Allowances	Average Monthly Benefit
General Members			
Healthy	2,923	\$8,469,000	\$2,897
Disabled	131	310,000	2,366
Beneficiaries	413	659,000	1,596
Total	3,467	\$9,438,000	\$2,722
APCD Members			
Healthy	60	\$197,000	\$3,283
Disabled	0	0	0
Beneficiaries	6	14,000	2,333
Total	66	\$211,000	\$3,197
Safety Members			
Healthy	832	\$4,885,000	\$5,871
Disabled	140	602,000	4,300
Beneficiaries	175	504,000	2,880
Total	1,147	\$5,991,000	\$5,223
Total in Pay Status	4,680	\$15,640,000	\$3,342

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

**Age & Service Distribution of Active Members by Count and Average Salary as of June 30, 2019
All Members**

Count

Age	Years of Service									Total Count
	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 25	19	30	0	0	0	0	0	0	0	49
25-29	55	261	44	0	0	0	0	0	0	360
30-34	40	276	197	48	0	0	0	0	0	561
35-39	31	171	176	207	35	0	0	0	0	620
40-44	19	101	84	160	136	41	0	0	0	541
45-49	19	70	51	125	163	164	35	2	0	629
50-54	15	55	41	93	116	124	85	31	1	561
55-59	5	67	50	65	79	91	88	67	20	532
60-64	4	34	23	57	46	56	42	32	20	314
65 & Over	1	13	16	23	23	8	9	4	5	102
Total Count	208	1,078	682	778	598	484	259	136	46	4,269

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

Salary

Age	Years of Service									Average Salary ¹
	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 25	\$50,723	\$63,826	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$58,745
25-29	54,063	65,569	72,622	0	0	0	0	0	0	64,674
30-34	46,773	69,074	73,185	73,292	0	0	0	0	0	69,289
35-39	57,719	76,036	78,870	83,457	87,745	0	0	0	0	79,063
40-44	68,696	82,077	83,061	85,997	91,736	97,063	0	0	0	86,483
45-49	59,300	69,846	81,415	81,674	95,803	97,392	97,070	94,131	0	88,317
50-54	79,091	88,610	85,225	81,880	92,712	90,437	95,930	106,281	104,946	90,359
55-59	130,916	95,520	92,473	85,181	78,060	98,471	95,291	98,483	90,077	92,346
60-64	120,772	111,338	92,495	86,673	95,347	76,831	88,738	97,547	81,794	90,794
65 & Over	69,000	98,991	81,454	84,995	87,279	75,275	103,011	117,402	89,652	88,908
Average Salary ¹	\$59,723	\$74,786	\$79,431	\$83,302	\$91,100	\$93,041	\$94,947	\$100,533	\$86,753	\$82,874

¹Based on salary data provided in the June 30, 2019 valuation data for FYE 2019.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

**Age & Service Distribution of Active Members by Count and Average Salary as of June 30, 2019
General Members**

Count

Age	Years of Service									Total Count
	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 25	14	18	0	0	0	0	0	0	0	32
25-29	44	175	28	0	0	0	0	0	0	247
30-34	33	215	144	36	0	0	0	0	0	428
35-39	26	143	127	134	25	0	0	0	0	455
40-44	15	90	66	109	78	23	0	0	0	381
45-49	19	63	44	99	108	94	25	0	0	452
50-54	13	45	39	79	91	94	57	23	1	442
55-59	4	64	43	61	73	77	69	55	19	465
60-64	4	32	23	50	44	53	41	28	20	295
65 & Over	1	13	16	22	21	8	9	3	3	96
Total Count	173	858	530	590	440	349	201	109	43	3,293

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

Salary

Age	Years of Service									Average Salary ¹
	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 25	\$45,009	\$54,998	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50,628
25-29	51,663	58,308	63,697	0	0	0	0	0	0	57,735
30-34	48,693	64,108	66,590	64,795	0	0	0	0	0	63,812
35-39	55,071	73,754	70,896	73,020	79,060	0	0	0	0	71,964
40-44	68,048	81,288	80,045	79,726	75,746	84,093	0	0	0	79,139
45-49	59,300	67,899	77,774	75,963	88,160	84,479	82,501	0	0	79,362
50-54	75,825	81,662	85,147	78,002	88,691	83,374	81,130	96,394	104,946	83,706
55-59	109,455	95,181	89,518	84,326	76,968	94,689	88,690	92,975	83,590	88,718
60-64	120,772	109,401	92,495	81,793	95,301	75,948	88,262	93,698	81,794	89,144
65 & Over	69,000	98,991	81,454	83,391	85,622	75,275	103,011	120,446	62,226	87,178
Average Salary ¹	\$58,180	\$71,878	\$74,871	\$77,217	\$84,288	\$84,902	\$86,330	\$94,638	\$81,761	\$77,400

¹Based on salary data provided in the June 30, 2019 valuation data for FYE 2019.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

**Age & Service Distribution of Active Members by Count and Average Salary as of June 30, 2019
Safety Members**

Count	Years of Service										
	Age	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	Total Count
	Under 25	5	11	0	0	0	0	0	0	0	16
	25-29	11	83	15	0	0	0	0	0	0	109
	30-34	5	57	52	10	0	0	0	0	0	124
	35-39	5	28	48	71	10	0	0	0	0	162
	40-44	4	10	16	51	58	18	0	0	0	157
	45-49	0	7	7	26	55	70	10	2	0	177
	50-54	2	9	2	13	25	30	28	8	0	117
	55-59	1	3	6	4	6	14	16	9	1	60
	60-64	0	2	0	7	2	3	0	4	0	18
	65 & Over	0	0	0	1	1	0	0	0	2	4
	Total Count	33	210	146	183	157	135	54	23	3	944

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

Salary

Age	Years of Service									Average Salary ¹	
	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over		
Under 25	\$66,721	\$78,389	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$74,743
25-29	63,665	80,282	87,172	0	0	0	0	0	0	0	79,553
30-34	33,963	87,975	91,031	99,940	0	0	0	0	0	0	88,044
35-39	71,486	87,686	99,923	101,741	109,457	0	0	0	0	0	98,315
40-44	71,126	86,529	94,625	99,399	113,241	113,636	0	0	0	0	104,118
45-49	0	87,369	104,304	103,420	110,812	114,734	133,493	94,131	0	0	111,186
50-54	100,321	123,552	86,740	101,814	107,347	112,566	126,060	134,706	0	0	115,193
55-59	216,757	102,764	108,762	98,212	91,346	119,275	123,076	133,368	213,335	0	119,521
60-64	0	142,326	0	121,534	96,348	92,437	0	124,495	0	0	116,854
65 & Over	0	0	0	120,289	119,452	0	0	0	130,792	0	125,331
Average Salary ¹	\$68,578	\$86,558	\$95,258	\$102,015	\$110,198	\$114,081	\$126,552	\$128,879	\$158,306		\$101,686

¹Based on salary data provided in the June 30, 2019 valuation data for FYE 2019.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

**Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2019
APCD Members**

Count

Age	Years of Service									Total Count
	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 25	0	1	0	0	0	0	0	0	0	1
25-29	0	3	1	0	0	0	0	0	0	4
30-34	2	4	1	2	0	0	0	0	0	9
35-39	0	0	1	2	0	0	0	0	0	3
40-44	0	1	2	0	0	0	0	0	0	3
45-49	0	0	0	0	0	0	0	0	0	0
50-54	0	1	0	1	0	0	0	0	0	2
55-59	0	0	1	0	0	0	3	3	0	7
60-64	0	0	0	0	0	0	1	0	0	1
65 & Over	0	0	0	0	1	0	0	1	0	2
Total Count	2	10	6	5	1	0	4	4	0	32

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

Salary

Age	Years of Service									Average Salary ¹
	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 25	\$0	\$62,531	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$62,531
25-29	0	82,091	104,283	0	0	0	0	0	0	87,639
30-34	47,125	66,644	95,014	93,012	0	0	0	0	0	71,318
35-39	0	0	81,011	133,728	0	0	0	0	0	116,156
40-44	0	108,602	90,058	0	0	0	0	0	0	96,239
45-49	0	0	0	0	0	0	0	0	0	0
50-54	0	86,778	0	129,106	0	0	0	0	0	107,942
55-59	0	0	121,818	0	0	0	98,928	94,803	0	100,430
60-64	0	0	0	0	0	0	108,270	0	0	108,270
65 & Over	0	0	0	0	89,916	0	0	108,270	0	99,093
Average Salary ¹	\$47,125	\$77,076	\$97,040	\$116,518	\$89,916	\$0	\$101,263	\$98,169	\$0	\$91,171

¹Based on salary data provided in the June 30, 2019 valuation data for FYE 2019.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

**Distribution of Retired Members by Age and Retirement Year as of June 30, 2019
All Members**

Age	Benefit Effective Date									Total Count	Average Monthly Benefit
	Pre-1980	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19		
Under 35	0	0	0	0	3	2	1	2	0	8	\$676
35-39	0	0	0	0	0	0	1	0	4	5	\$3,068
40-44	0	0	0	0	0	3	0	3	8	14	\$3,062
45-49	0	0	0	0	2	1	0	7	20	30	\$2,698
50-54	0	0	0	2	2	3	5	12	118	142	\$2,870
55-59	0	0	0	0	3	11	9	146	215	384	\$3,285
60-64	0	0	0	1	19	14	169	272	317	792	\$3,534
65-69	1	1	1	1	11	95	248	281	298	937	\$3,620
70-74	5	3	9	9	76	198	296	235	109	940	\$3,723
75-79	11	9	1	46	126	183	149	59	54	638	\$3,456
80-84	10	3	24	49	89	88	43	23	21	350	\$2,685
85-89	4	13	31	50	57	29	13	12	17	226	\$2,386
90-94	12	21	30	35	11	13	10	11	10	153	\$2,121
95-99	6	15	11	5	3	4	5	4	3	56	\$2,164
100 & Over	1	1	0	2	0	1	0	0	0	5	\$1,292
Total Count	50	66	107	200	402	645	949	1,067	1,194	4,680	
Avg Monthly Benefit	\$2,137	\$2,084	\$2,491	\$2,512	\$2,933	\$3,215	\$3,552	\$3,466	\$3,605		\$3,342

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

**Distribution of Retired Members by Age and Retirement Year as of June 30, 2019
General Members**

Age	Benefit Effective Date									Total Count	Average Monthly Benefit
	Pre-1980	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19		
Under 35	0	0	0	0	3	2	1	0	0	6	\$584
35-39	0	0	0	0	0	0	1	0	0	1	\$777
40-44	0	0	0	0	0	2	0	1	4	7	\$1,992
45-49	0	0	0	0	1	1	0	2	6	10	\$1,354
50-54	0	0	0	2	1	1	3	0	48	55	\$1,213
55-59	0	0	0	0	3	7	2	59	151	222	\$1,805
60-64	0	0	0	1	12	7	105	124	295	544	\$2,701
65-69	1	0	1	1	7	73	162	188	305	738	\$3,118
70-74	1	0	5	4	62	115	242	175	123	727	\$3,199
75-79	2	2	0	33	60	146	133	47	49	472	\$2,763
80-84	2	2	17	37	73	80	39	16	18	284	\$2,382
85-89	3	12	25	45	53	26	11	7	20	202	\$2,253
90-94	11	20	28	35	10	10	9	8	11	142	\$2,085
95-99	4	15	11	5	3	4	5	3	3	53	\$2,034
100 & Over	0	1	0	2	0	1	0	0	0	4	\$887
Total Count	24	52	87	165	288	475	713	630	1,033	3,467	
Avg Monthly Benefit	\$1,300	\$1,818	\$2,106	\$2,108	\$1,967	\$2,408	\$2,856	\$2,998	\$3,046		\$2,722

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

**Distribution of Retired Members by Age and Retirement Year as of June 30, 2019
Safety Members**

Age	Benefit Effective Date									Total Count	Average Monthly Benefit
	Pre-1980	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19		
Under 35	0	0	0	0	0	0	0	2	0	2	\$951
35-39	0	0	0	0	0	0	0	0	4	4	\$3,641
40-44	0	0	0	0	0	1	0	1	5	7	\$4,132
45-49	0	0	0	0	1	0	0	2	17	20	\$3,371
50-54	0	0	0	0	1	2	2	9	72	86	\$3,943
55-59	0	0	0	0	0	4	7	45	96	152	\$5,542
60-64	0	0	0	0	7	7	58	86	76	234	\$5,549
65-69	0	1	0	0	4	21	83	38	35	182	\$5,583
70-74	4	3	4	5	14	81	50	19	17	197	\$5,620
75-79	9	7	1	13	66	37	15	5	11	164	\$5,482
80-84	8	1	7	12	16	5	2	5	5	61	\$4,048
85-89	1	1	6	5	4	2	2	2	0	23	\$3,656
90-94	1	1	2	0	1	3	1	0	2	11	\$2,583
95-99	2	0	0	0	0	0	0	1	0	3	\$4,473
100 & Over	1	0	0	0	0	0	0	0	0	1	\$2,913
Total Count	26	14	20	35	114	163	220	215	340	1,147	
Avg Monthly Benefit	\$2,909	\$3,071	\$4,164	\$4,420	\$5,375	\$5,608	\$5,866	\$5,139	\$5,036		\$5,223

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

**Distribution of Retired Members by Age and Retirement Year as of June 30, 2019
APCD Members**

Age	Benefit Effective Date									Total Count	Average Monthly Benefit
	Pre-1980	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-19		
Under 35	0	0	0	0	0	0	0	0	0	0	\$0
35-39	0	0	0	0	0	0	0	0	0	0	\$0
40-44	0	0	0	0	0	0	0	0	0	0	\$0
45-49	0	0	0	0	0	0	0	0	0	0	\$0
50-54	0	0	0	0	0	0	0	0	1	1	\$1,680
55-59	0	0	0	0	0	0	0	4	6	10	\$1,817
60-64	0	0	0	0	0	0	6	4	4	14	\$2,229
65-69	0	0	0	0	0	1	3	6	7	17	\$4,388
70-74	0	0	0	0	0	2	4	7	3	16	\$4,184
75-79	0	0	0	0	0	0	1	1	0	2	\$861
80-84	0	0	0	0	0	3	2	0	0	5	\$3,250
85-89	0	0	0	0	0	1	0	0	0	1	\$57
90-94	0	0	0	0	0	0	0	0	0	0	\$0
95-99	0	0	0	0	0	0	0	0	0	0	\$0
100 & Over	0	0	0	0	0	0	0	0	0	0	\$0
Total Count	0	0	0	0	0	7	16	22	21	66	
Avg Monthly Benefit	\$0	\$0	\$0	\$0	\$0	\$2,295	\$2,798	\$3,386	\$3,586		\$3,197

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

**Reconciliation of System Membership since Prior Valuation
All Members**

	Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
June 30, 2018	4,171	1,589	69	198	3,683	569	10,279
New Entrants	429	3	0	0	0	0	432
Rehires	37	(37)	0	0	0	0	0
Duty Disabilities	(3)	(1)	0	4	0	0	0
Ordinary Disabilities	0	(1)	1	0	0	0	0
Retirements	(154)	(61)	0	0	215	0	0
Retirements from one plan with service in another	0	(2)	0	0	8	0	6
Vested Terminations	(64)	64	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	(1)	(1)	(1)	(5)	(35)	43	0
Non-Vested Terminations and Death without beneficiary	(93)	89	(2)	(2)	(48)	0	(56)
Transfers	(11)	11	0	0	0	0	0
Beneficiary Deaths	0	0	0	0	0	(31)	(31)
Domestic Relations Orders	0	0	0	0	0	12	12
Withdrawals Paid	(42)	(55)	0	0	0	0	(97)
Data Corrections	0	0	0	9	(8)	1	2
Benefit Expired	0	0	0	0	0	0	0
June 30, 2019	4,269	1,598	67	204	3,815	594	10,547

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

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, 2018	3,212	1,333	58	72	2,815	403	7,893
New Entrants	360	2	0	0	0	0	362
Rehires	33	(34)	0	0	0	0	(1)
Duty Disabilities	(1)	0	0	1	0	0	0
Ordinary Disabilities	0	(1)	1	0	0	0	0
Retirements	(124)	(50)	0	0	174	0	0
Retirements from one plan with service in another	0	(2)	0	0	7	0	5
Vested Terminations	(56)	56	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	(1)	(1)	(1)	(1)	(25)	29	0
Non-Vested Terminations and Death without beneficiary	(78)	76	(1)	(2)	(45)	0	(50)
Transfers	(15)	9	0	0	0	0	(6)
Beneficiary Deaths	0	0	0	0	0	(26)	(26)
Domestic Relations Orders	0	0	0	0	0	6	6
Withdrawals Paid	(37)	(47)	0	0	0	0	(84)
Data Corrections	0	0	0	4	(3)	1	2
Benefit Expired	0	0	0	0	0	0	0
June 30, 2019	3,293	1,341	57	74	2,923	413	8,101

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

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, 2018	929	232	11	126	812	160	2,270
New Entrants	62	1	0	0	0	0	63
Rehires	4	(3)	0	0	0	0	1
Duty Disabilities	(2)	(1)	0	3	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0
Retirements	(28)	(9)	0	0	37	0	0
Retirements from one plan with service in another	0	0	0	0	1	0	1
Vested Terminations	(8)	8	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	(4)	(10)	14	0
Non-Vested Terminations and Death without beneficiary	(12)	10	(1)	0	(3)	0	(6)
Transfers	4	2	0	0	0	0	6
Beneficiary Deaths	0	0	0	0	0	(5)	(5)
Domestic Relations Orders	0	0	0	0	0	6	6
Withdrawals Paid	(5)	(8)	0	0	0	0	(13)
Data Corrections	0	0	0	5	(5)	0	0
Benefit Expired	0	0	0	0	0	0	0
June 30, 2019	944	232	10	130	832	175	2,323

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX A – MEMBERSHIP INFORMATION

**Reconciliation of System Membership since Prior Valuation
APCD Members**

	Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
June 30, 2018	30	24	0	0	56	6	116
New Entrants	7	0	0	0	0	0	7
Rehires	0	0	0	0	0	0	0
Duty Disabilities	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0
Retirements	(2)	(2)	0	0	4	0	0
Retirements from one plan with service in another	0	0	0	0	0	0	0
Vested Terminations	0	0	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	0	0
Non-Vested Terminations and Death without beneficiary	(3)	3	0	0	0	0	0
Transfers	0	0	0	0	0	0	0
Beneficiary Deaths	0	0	0	0	0	0	0
Domestic Relations Orders	0	0	0	0	0	0	0
Withdrawals Paid	0	0	0	0	0	0	0
Data Corrections	0	0	0	0	0	0	0
Benefit Expired	0	0	0	0	0	0	0
June 30, 2019	32	25	0	0	60	6	123

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX B – MEMBER CONTRIBUTION RATES

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

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

APPENDIX B – MEMBER CONTRIBUTION RATES

Member Contribution Rates effective as of the July 1, 2019 Valuation

Entry Age	General				APCD		Safety		
	5A	5B	5C	7	1	2	4A & 6A	4B	4C & 6B
16	3.01%	6.03%	2.92%	2.43%	3.53%	7.06%	5.58%	11.15%	5.38%
17	3.01%	6.03%	2.92%	2.43%	3.53%	7.06%	5.58%	11.15%	5.38%
18	3.01%	6.03%	2.92%	2.43%	3.53%	7.06%	5.58%	11.15%	5.38%
19	3.01%	6.03%	2.92%	2.43%	3.53%	7.06%	5.58%	11.15%	5.38%
20	3.01%	6.03%	2.92%	2.43%	3.53%	7.06%	5.58%	11.15%	5.38%
21	3.08%	6.16%	2.98%	2.48%	3.60%	7.21%	5.68%	11.36%	5.48%
22	3.14%	6.29%	3.04%	2.54%	3.68%	7.36%	5.79%	11.57%	5.58%
23	3.21%	6.43%	3.11%	2.59%	3.76%	7.52%	5.89%	11.79%	5.68%
24	3.28%	6.56%	3.18%	2.65%	3.84%	7.68%	6.00%	12.01%	5.79%
25	3.35%	6.71%	3.24%	2.70%	3.92%	7.84%	6.11%	12.23%	5.90%
26	3.42%	6.85%	3.31%	2.76%	4.01%	8.01%	6.23%	12.46%	6.00%
27	3.50%	7.00%	3.38%	2.82%	4.09%	8.18%	6.34%	12.69%	6.12%
28	3.57%	7.15%	3.46%	2.88%	4.18%	8.36%	6.46%	12.92%	6.23%
29	3.65%	7.30%	3.53%	2.94%	4.27%	8.53%	6.58%	13.16%	6.34%
30	3.73%	7.45%	3.61%	3.00%	4.36%	8.72%	6.70%	13.40%	6.46%
31	3.81%	7.61%	3.68%	3.07%	4.45%	8.90%	6.83%	13.65%	6.58%
32	3.89%	7.77%	3.76%	3.13%	4.55%	9.09%	6.95%	13.91%	6.70%
33	3.97%	7.94%	3.84%	3.20%	4.64%	9.28%	7.08%	14.17%	6.83%
34	4.05%	8.11%	3.92%	3.27%	4.74%	9.48%	7.22%	14.43%	6.96%
35	4.14%	8.28%	4.01%	3.34%	4.84%	9.68%	7.35%	14.70%	7.08%
36	4.23%	8.46%	4.09%	3.41%	4.94%	9.88%	7.49%	14.98%	7.21%
37	4.32%	8.64%	4.18%	3.48%	5.04%	10.09%	7.63%	15.25%	7.35%
38	4.41%	8.82%	4.27%	3.55%	5.15%	10.30%	7.77%	15.53%	7.48%
39	4.50%	9.01%	4.35%	3.63%	5.26%	10.51%	7.91%	15.82%	7.62%
40	4.60%	9.20%	4.45%	3.70%	5.36%	10.72%	8.06%	16.11%	7.75%
41	4.69%	9.39%	4.54%	3.78%	5.47%	10.94%	8.20%	16.41%	7.89%
42	4.79%	9.58%	4.63%	3.86%	5.57%	11.14%	8.36%	16.71%	8.04%
43	4.89%	9.78%	4.72%	3.94%	5.68%	11.35%	8.51%	17.02%	8.18%
44	4.99%	9.99%	4.82%	4.02%	5.78%	11.55%	8.67%	17.33%	8.33%
45	5.09%	10.19%	4.91%	4.09%	5.88%	11.76%	8.83%	17.65%	8.47%
46	5.20%	10.39%	5.00%	4.17%	5.98%	11.96%	8.99%	17.98%	8.61%
47	5.29%	10.59%	5.09%	4.25%	6.08%	12.17%	9.15%	18.31%	8.74%
48	5.39%	10.78%	5.18%	4.32%	6.18%	12.36%	9.31%	18.62%	8.85%
49	5.49%	10.98%	5.27%	4.39%	6.27%	12.54%	9.45%	18.89%	8.93%
50	5.58%	11.17%	5.36%	4.47%	6.34%	12.69%	9.56%	19.12%	8.98%
51	5.68%	11.36%	5.45%	4.54%	6.40%	12.80%	9.63%	19.25%	8.98%
52	5.78%	11.56%	5.53%	4.61%	6.43%	12.87%	9.65%	19.30%	8.98%
53	5.87%	11.74%	5.60%	4.67%	6.44%	12.88%	9.65%	19.30%	9.21%
54	5.96%	11.92%	5.65%	4.71%	6.44%	12.88%	9.65%	19.30%	9.52%
55	6.03%	12.06%	5.69%	4.74%	6.44%	12.88%	9.65%	19.30%	9.52%
56	6.08%	12.16%	5.71%	4.76%	6.44%	12.88%	9.65%	19.30%	9.52%
57	6.11%	12.22%	5.71%	4.76%	6.44%	12.88%	9.65%	19.30%	9.52%
58	6.12%	12.23%	5.89%	4.91%	6.44%	12.88%	9.65%	19.30%	9.52%
59	6.12%	12.23%	6.09%	5.08%	6.44%	12.88%	9.65%	19.30%	9.52%
60	6.12%	12.23%	6.09%	5.08%	6.44%	12.88%	9.65%	19.30%	9.52%

Assumptions:

Interest: 7.00%

Salary: 2019 Valuation Scale (Service based, includes wage inflation at 3.00%)

Unisex Mortality: Public General 2010 Above-Median Income and Public Safety 2010 Retiree Mortality Tables projected to 2044 using Scale MP-2019 (blended 35% Male / 65% Female for General and APCD, and blended 80% Male / 20% Female for Safety)

Administrative expenses: Rates have been loaded by 3.1% to account for expected administrative expenses allocated to the members.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
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APPENDIX B – MEMBER CONTRIBUTION RATES

PEPRA Member Contribution Rates effective as of the July 1, 2019 Valuation

PEPRA Rates				
	General			
	2% COLA	3% COLA	Safety	APCD
	8.43%	9.34%	15.14%	7.27%
Assumptions:				
Interest:	7.00%			
Salary:	2019 Scale (Service based, includes wage inflation at 3.00%)			
Mortality:	The PEPRA contribution rates are based on 50% of the actual Normal Cost. Thus, the mortality rates are the same as those used in the actuarial valuation (Public General 2010 Above-Median Income and Public Safety 2010 Mortality Tables with generational mortality improvements projected from 2010 using Projection Scale MP-2019).			
Administrative expenses:	Rates have been loaded by 3.10% to account for the expected administrative expenses allocated to the members.			

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APPENDIX B – MEMBER CONTRIBUTION RATES

**Member Cost Sharing/Pick-Up Contributions by Bargaining Group
Estimated Rate During July 1, 2019 to June 30, 2020
(Non-PEPRA Plans Only)**

Bargaining Unit	Union	Employer Contribution Offset¹	Additional Member Contribution¹
10, 11	Union of American Physicians & Dentists	1.79%	1.81%
12, 13	Fire Fighters Local 2046	3.98%	4.00%
14, 15	Deputy Sheriffs' Association - Safety	3.98%	4.00%
14, 15	Deputy Sheriffs' Association - non-Safety	1.99%	2.00%
17	Deputy District Attorneys	1.49%	1.50%
18, 19	Probation Peace Officers	3.98%	4.00%
20	Deputy Public Defenders	1.99%	2.00%
21, 22	SEIU Local 721	1.99%	2.00%
23, 24, 25, 26, 27	SEIU Local 620	1.99%	2.00%
28, 29	Engineers & Technicians	1.99%	2.00%
30	Civil Attorneys Association	1.48%	1.49%
32	Confidential	1.99%	2.00%
35, 40, 41, 42, 43	Unrepresented Managers (including CEO)	1.65%	1.66%
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	3.98%	4.00%

^{1 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.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
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APPENDIX B – MEMBER CONTRIBUTION RATES

**Member Cost Sharing/Pick-Up Contributions by Bargaining Group
Estimated Rate During July 1, 2020 to June 30, 2021
(Non-PEPRA Plans Only)**

Bargaining Unit	Union	Employer Contribution Offset¹	Additional Member Contribution¹
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.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

**APPENDIX C – 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 11 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 13 years. As of June 30, 2019, it would take approximately 13 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.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

**APPENDIX C – 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, 2016 through June 30, 2019 and adopted by the Board. More details on the rationale for the demographic and economic assumptions can be found in the Experience Analysis presented to the Board on December 11, 2019.

1. Rate of Return

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

2. Administrative Expenses

Administrative expenses are assumed to be \$5.3 million for the next year, to be split between employees and employers based on their share of the overall contributions. 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 PEPRAs members.

4. Post Retirement COLA

Benefits are assumed to increase after retirement at the rate of 2.6% per year for General Plans 5, Safety Plans 4, 6 and 8 (PEPRA), and APCD Plans 1 and 2; 1.90% per year for General Plans 7 and APCD Plan 8 (PEPRA), and 0% per year for General Plan 2.

For General Plan 8 (PEPRA), benefits are assumed to increase at the rate of 1.90% per year if their employer had implemented General Plan 7 prior to January 1, 2013. Otherwise, benefits are assumed to increase at the rate of 2.6% per year.

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.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
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**APPENDIX C – STATEMENT OF CURRENT ACTUARIAL
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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%

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 prerecognition of potential costs included in the valuation.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
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**APPENDIX C – STATEMENT OF CURRENT ACTUARIAL
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12. Increases in Pay

Wage inflation component: 3.00%

Additional longevity and promotion component:

Longevity and Promotion Increases		
Service	General	Safety
0	4.75%	6.00%
1	4.00%	5.00%
2	3.25%	4.00%
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%	0.92%
13	0.70%	0.89%
14	0.60%	0.87%
15	0.55%	0.85%
16	0.50%	0.82%
17	0.48%	0.80%
18	0.46%	0.77%
19	0.44%	0.75%
20	0.42%	0.75%
21	0.40%	0.75%
22	0.38%	0.75%
23	0.38%	0.75%
24	0.38%	0.75%
25	0.38%	0.75%
26	0.38%	0.75%
27	0.38%	0.75%
28	0.38%	0.75%
29	0.38%	0.75%
30+	0.38%	0.75%

Increases are compound rather than additive.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
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13. Rates of Termination

Sample rates of termination are shown in the following table below. 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%	9.00%
2	10.00%	3.50%
3	8.00%	3.00%
4	7.00%	3.00%
5	7.00%	5.00%
6	6.00%	2.75%
7	6.00%	2.75%
8	6.00%	2.75%
9	5.00%	2.75%
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.

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**APPENDIX C – STATEMENT OF CURRENT ACTUARIAL
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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	20.00%	15.00%
6	20.00%	15.00%
7	20.00%	15.00%
8	20.00%	15.00%
9	20.00%	15.00%
10	15.00%	10.00%
11	15.00%	10.00%
12	15.00%	10.00%
13	15.00%	10.00%
14	15.00%	10.00%
15	10.00%	5.00%
16	10.00%	5.00%
17	10.00%	5.00%
18	10.00%	5.00%
19	10.00%	5.00%
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%

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
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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 52
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:	3.750%

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

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

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16. Rates of Disability

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

Safety members are based the sum of the Industrial and Non-Industrial Disability State Safety rates.

Representative disability rates of active participants are shown below.

Rates of Disability						
Age	General Years of Service				Safety Years of Service	
	Males		Females		Less than 5	5 or More
	Less than 5	5 or More	Less than 5	5 or More		
20	0.009%	0.017%	0.009%	0.016%	0.034%	0.038%
25	0.009%	0.017%	0.009%	0.016%	0.117%	0.130%
30	0.010%	0.019%	0.013%	0.024%	0.210%	0.233%
35	0.021%	0.039%	0.039%	0.071%	0.302%	0.336%
40	0.056%	0.102%	0.074%	0.135%	0.389%	0.432%
45	0.083%	0.151%	0.103%	0.188%	0.509%	0.565%
50	0.087%	0.158%	0.109%	0.199%	0.682%	0.758%
55	0.087%	0.158%	0.082%	0.149%	0.808%	0.898%
60	0.084%	0.153%	0.058%	0.105%	0.974%	1.082%
65	0.070%	0.128%	0.048%	0.088%	0.000%	0.000%
70	0.056%	0.102%	0.046%	0.084%		
75	0.000%	0.000%	0.000%	0.000%		

55% of General disabilities and 90% of Safety disabilities where the member has five or more years of service are assumed to be service-related. All disabilities for those with less than five years or service 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 Projection Scale MP-2019, without adjustment.

Non-duty related mortality rates for Safety active members are based on the sex distinct Public Safety 2010 Employee Mortality Table, with generational mortality improvements projected from 2010 using Projection Scale MP-2019, without adjustment.

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Safety active members are also subject to the 2014 CalPERS Preretirement Industrial Mortality Table for duty-related deaths, with generational improvement using Projection Scale MP-2019 from a base year of 2009.

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 Projection Scale MP-2019.

Mortality rates for Safety annuitants are based the sex distinct Public Safety 2010 Retiree Mortality Table, with generational improvements projected from 2010 using Projection Scale MP-2019.

18. Rates of Mortality for Retired Disabled Lives

Mortality rates for disabled retirees are based on 2014 CalPERS Industrial Disabled Annuitant Mortality, with no adjustment (Safety only), 2014 CalPERS Non-Industrial Disabled Annuitant Mortality, with no adjustment (General only), with generational improvement using Projection Scale MP-2019 from a base year of 2009.

19. Benefit Payment Timing

End of the month

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20. 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												
Age	General			General - PEPRA		Safety						
	Svc < 20	20-29	Svc >= 30	Svc < 25	Svc >= 25	Svc < 20	Plan 4 20-29	Svc >= 30	Svc < 20	Plan 6 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%	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%	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%	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%	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%	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%	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%	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%	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%	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%	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%	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%	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%	50.00%
50	2.00%	2.00%	10.00%	0.00%	0.00%	3.00%	2.50%	5.00%	10.00%	25.00%	50.00%	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%	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%	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%	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%	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%	35.00%
56	4.00%	5.00%	10.00%	3.00%	7.00%	10.00%	15.00%	25.00%	7.50%	15.00%	25.00%	25.00%
57	7.00%	7.00%	10.00%	4.50%	6.00%	10.00%	15.00%	25.00%	10.00%	25.00%	25.00%	25.00%
58	7.00%	7.00%	10.00%	4.50%	6.00%	10.00%	15.00%	40.00%	10.00%	25.00%	25.00%	25.00%
59	7.00%	7.00%	15.00%	5.00%	10.00%	10.00%	30.00%	40.00%	15.00%	25.00%	25.00%	25.00%
60	7.00%	10.00%	15.00%	5.00%	10.00%	10.00%	30.00%	50.00%	15.00%	25.00%	25.00%	25.00%
61	15.00%	20.00%	30.00%	12.50%	15.00%	25.00%	30.00%	35.00%	20.00%	25.00%	25.00%	25.00%
62	20.00%	30.00%	40.00%	15.00%	25.00%	25.00%	30.00%	35.00%	20.00%	25.00%	25.00%	25.00%
63	15.00%	25.00%	40.00%	10.00%	25.00%	15.00%	30.00%	35.00%	10.00%	25.00%	25.00%	25.00%
64	25.00%	25.00%	40.00%	15.00%	20.00%	15.00%	30.00%	35.00%	10.00%	25.00%	25.00%	25.00%
65	30.00%	40.00%	50.00%	20.00%	30.00%	100.00%	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%							

21. Changes Since Last Valuation

Based on the findings of the 2016-2019 experience study, many demographic assumptions were updated to better reflect the experience of the System. For details on the assumption changes, please see the Actuarial Experience Study for July 1, 2016 through June 30, 2019 issued in January 2020.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
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**APPENDIX C – STATEMENT OF CURRENT ACTUARIAL
ASSUMPTIONS AND METHODS**

Rationale for Economic and Demographic Assumptions

In accordance with Actuarial Standard of Practice No. 27 and No. 35, the economic and demographic assumptions used in this report were based on the findings in the recent experience study and can be found in the Actuarial Experience Study report issued in January 2020 for the period covering July 1, 2016 through June 30, 2019.

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APPENDIX D – 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, 2018. 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.

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- 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 E for details on this calculation. Current member rates are shown in the Appendix. (31453, 31454, 31454.1)

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

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

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

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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)*

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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, & 6A: 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 (\$121,388 for calendar year 2018 and \$124,180 for calendar year 2019). For those not participating in Social Security, the compensation cap is 120% of the above limit (\$145,666 for

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calendar year 2018 and \$149,016 for calendar year 2019). In addition, it is possible that some sources of compensation, such as any payments deemed to be terminal or special pays, may be excluded from the benefit and contribution computations for PEPRA members.

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 (see Sample Plan Age Factors).

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.

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Age Factors By Plan							
	General		General & APCD	APCD	Safety		
	Plan 5	Plan 7	Plan 8		Plan 4	Plan 6	Plan 8
Code Section:	31676.12	31676.1		31676.15	31664.2	31664.1	
Label:	2% @ 57	1.67% @ 57.5	PEPRA	2% @ 55	3% @ 55	3% @ 50	PEPRA
Base:	2.00%	1.67%		2.00%	3.00%	3.00%	
Age:							
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

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Maximum Allowance:

General Plan 2: The sum of the normal retirement allowance and the estimated PIA cannot exceed 70% of Final Compensation for a member with 35 or less years of service, and cannot exceed 80% of Final Compensation if service exceeds 35 years. (31486.4)

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

Unmodified Retirement Allowance (Normal Form):

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

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

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

Optional Retirement Allowance:

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

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

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

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

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

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

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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.

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).

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Death after Retirement:

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

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

F. Non Service-Connected Disability Retirement Allowance

Eligibility:

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

All other Plans: Any age with five years of service and permanently incapacitated for the performance of duty. (31720)

Monthly Allowance:

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

All other Plans: The monthly allowance is equal to a service retirement allowance if the member is eligible to retire and the service retirement allowance exceeds the benefits described below. Otherwise, allowance equals (a) or (b) where: (31727, 31727.1, 31727.2, and 31727.3)

(a) $90\% \times 1/50$ (1/60 for PEPRA General and PEPRA APCD members and those in Plan 7) \times Final Compensation \times 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) $90\% \times 1/50$ (1/60 for PEPRA General and APCD members and those in Plan 7) \times Final Compensation \times 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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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 $1/12 \times$ final 12 months' Salary \times 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) $50\% \times$ Final Compensation. (31787)

APPENDIX D – 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 $1/12 \times$ final 12 months' Salary \times 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 $60\% \times$ the member's non-service connected disability allowance. Otherwise, the benefit is a refund of contributions plus a lump sum equal to $1/12 \times$ final 12 months' Salary \times years of service (up to maximum of six years). (31781.1)

Supplemental Monthly Death Benefit:

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

I. Deferred Vested Benefits

Eligibility:

General Plan 2: The member must have terminated with 10 years of service. Members are eligible for service retirement when they reach service retirement eligibility (based on years of service at termination plus reciprocal service, if any). (31700)

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All other Plans: Member contributions must be left on deposit and the member must have terminated with five years of service or entered a reciprocal agency. Members are eligible for service retirement when they reach service retirement eligibility (based on years of service at termination plus reciprocal service, if any). (31700, 31701, 31702)

Monthly Allowance:

General Plan 2: Same as service retirement allowance at normal retirement age 65 or in an actuarially equivalent reduced amount at early retirement, after age 55.

All other Plans: Same as service retirement allowance; payable any time after the member would have been eligible for service retirement. (31703, 31704, 31705)

J. Cost-of-Living Increases

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

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

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

General Plan 7:

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

General Plan 8 (PEPRA):

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

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

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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.

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**APPENDIX E – 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 & Technicians (28,29) and Confidential (32)				
	5A	5B	5C	Plan 7
June 30, 2018 Contribution Rate for FYE 2020	35.41%	35.56%	37.15%	36.02%
Adjusted Member Cost-Sharing Contributions	<u>-1.99%</u>	<u>-1.99%</u>	<u>-1.99%</u>	<u>-1.99%</u>
Net Employer Rate Effective July 1, 2019	33.42%	33.57%	35.16%	34.03%
June 30, 2019 Contribution Rate for FYE 2021	37.06%	37.06%	38.83%	38.20%
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 June 29, 2020	34.58%	34.58%	36.35%	35.72%

General Employer Contribution Rates after Member Cost-Sharing				
Deputy District Attorneys (17)				
	5A	5B	5C	Plan 7
June 30, 2018 Contribution Rate for FYE 2020	35.41%	35.56%	37.15%	36.02%
Adjusted Member Cost-Sharing Contributions	<u>-1.49%</u>	<u>-1.49%</u>	<u>-1.49%</u>	<u>-1.49%</u>
Net Employer Rate Effective July 1, 2019	33.92%	34.07%	35.66%	34.53%
June 30, 2019 Contribution Rate for FYE 2021	37.06%	37.06%	38.83%	38.20%
Adjusted Member Cost-Sharing Contributions	<u>-1.49%</u>	<u>-1.49%</u>	<u>-1.49%</u>	<u>-1.49%</u>
Net Employer Rate Effective July 1, 2020	35.57%	35.57%	37.34%	36.71%

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**APPENDIX E – CONTRIBUTION RATES WITH MEMBER COST SHARING
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General Employer Contribution Rates after Member Cost-Sharing Civil Attorneys Association (30) and Unrepresented Confidential Attorneys (36)				
	5A	5B	5C	Plan 7
June 30, 2018 Contribution Rate for FYE 2020	35.41%	35.56%	37.15%	36.02%
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, 2019	33.93%	34.08%	35.67%	34.54%
June 30, 2019 Contribution Rate for FYE 2021	37.06%	37.06%	38.83%	38.20%
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, 2020	35.58%	35.58%	37.35%	36.72%

General Employer Contribution Rates after Member Cost-Sharing Unrepresented Managers (including CEO) (35, 40, 41, 42, 43)				
	5A	5B	5C	Plan 7
June 30, 2018 Contribution Rate for FYE 2020	35.41%	35.56%	37.15%	36.02%
Adjusted Member Cost-Sharing Contributions	<u>-1.65%</u>	<u>-1.65%</u>	<u>-1.65%</u>	<u>-1.65%</u>
Net Employer Rate Effective July 1, 2019	33.76%	33.91%	35.50%	34.37%
June 30, 2019 Contribution Rate for FYE 2021	37.06%	37.06%	38.83%	38.20%
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 June 29, 2020	34.59%	34.59%	36.36%	35.73%

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**APPENDIX E – CONTRIBUTION RATES WITH MEMBER COST SHARING
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General Employer Contribution Rates after Member Cost-Sharing Union of American Physicians & Dentists (10,11)				
	5A	5B	5C	Plan 7
June 30, 2018 Contribution Rate for FYE 2020	35.41%	35.56%	37.15%	36.02%
Adjusted Member Cost-Sharing Contributions	<u>-1.98%</u>	<u>-1.98%</u>	<u>-1.98%</u>	<u>-1.98%</u>
Net Employer Rate Effective November 18, 2019	33.43%	33.58%	35.17%	34.04%
June 30, 2019 Contribution Rate for FYE 2021	37.06%	37.06%	38.83%	38.20%
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 November 16, 2020	34.58%	34.58%	36.35%	35.72%

Safety Employer Contribution Rates after Member Cost-Sharing Unrepresented Safety Managers (35,40,41,42,43)					
	4A	4B	4C	6A	6B
June 30, 2018 Contribution Rate for FYE 2020	56.09%	55.01%	55.22%	64.50%	63.98%
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, 2019	55.26%	54.18%	54.39%	63.67%	63.15%
June 30, 2019 Contribution Rate for FYE 2021	58.88%	59.20%	57.66%	66.85%	65.48%
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, 2020	58.05%	58.37%	56.83%	66.02%	64.65%

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**APPENDIX E – CONTRIBUTION RATES WITH MEMBER COST SHARING
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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, 2018 Contribution Rate for FYE 2020	56.09%	55.01%	55.22%	64.50%	63.98%
Adjusted Member Cost-Sharing Contributions	<u>-3.98%</u>	<u>-3.98%</u>	<u>-3.98%</u>	<u>-3.98%</u>	<u>-3.98%</u>
Net Employer Rate Effective July 1, 2019	52.11%	51.03%	51.24%	60.52%	60.00%
June 30, 2019 Contribution Rate for FYE 2021	58.88%	59.20%	57.66%	66.85%	65.48%
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 June 29, 2020	52.91%	53.23%	51.69%	60.88%	59.51%

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**APPENDIX E – CONTRIBUTION RATES WITH MEMBER COST SHARING
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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)												
Effective July 1, 2020												
Entry Age	Plan 5A			Plan 5B			Plan 5C			Plan 7		
	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total
16	3.01%	2.48%	5.49%	6.03%	2.48%	8.51%	2.92%	2.48%	5.40%	2.43%	2.48%	4.91%
17	3.01%	2.48%	5.49%	6.03%	2.48%	8.51%	2.92%	2.48%	5.40%	2.43%	2.48%	4.91%
18	3.01%	2.48%	5.49%	6.03%	2.48%	8.51%	2.92%	2.48%	5.40%	2.43%	2.48%	4.91%
19	3.01%	2.48%	5.49%	6.03%	2.48%	8.51%	2.92%	2.48%	5.40%	2.43%	2.48%	4.91%
20	3.01%	2.48%	5.49%	6.03%	2.48%	8.51%	2.92%	2.48%	5.40%	2.43%	2.48%	4.91%
21	3.08%	2.48%	5.56%	6.16%	2.48%	8.64%	2.98%	2.48%	5.46%	2.48%	2.48%	4.96%
22	3.14%	2.48%	5.62%	6.29%	2.48%	8.77%	3.04%	2.48%	5.52%	2.54%	2.48%	5.02%
23	3.21%	2.48%	5.69%	6.43%	2.48%	8.91%	3.11%	2.48%	5.59%	2.59%	2.48%	5.07%
24	3.28%	2.48%	5.76%	6.56%	2.48%	9.04%	3.18%	2.48%	5.66%	2.65%	2.48%	5.13%
25	3.35%	2.48%	5.83%	6.71%	2.48%	9.19%	3.24%	2.48%	5.72%	2.70%	2.48%	5.18%
26	3.42%	2.48%	5.90%	6.85%	2.48%	9.33%	3.31%	2.48%	5.79%	2.76%	2.48%	5.24%
27	3.50%	2.48%	5.98%	7.00%	2.48%	9.48%	3.38%	2.48%	5.86%	2.82%	2.48%	5.30%
28	3.57%	2.48%	6.05%	7.15%	2.48%	9.63%	3.46%	2.48%	5.94%	2.88%	2.48%	5.36%
29	3.65%	2.48%	6.13%	7.30%	2.48%	9.78%	3.53%	2.48%	6.01%	2.94%	2.48%	5.42%
30	3.73%	2.48%	6.21%	7.45%	2.48%	9.93%	3.61%	2.48%	6.09%	3.00%	2.48%	5.48%
31	3.81%	2.48%	6.29%	7.61%	2.48%	10.09%	3.68%	2.48%	6.16%	3.07%	2.48%	5.55%
32	3.89%	2.48%	6.37%	7.77%	2.48%	10.25%	3.76%	2.48%	6.24%	3.13%	2.48%	5.61%
33	3.97%	2.48%	6.45%	7.94%	2.48%	10.42%	3.84%	2.48%	6.32%	3.20%	2.48%	5.68%
34	4.05%	2.48%	6.53%	8.11%	2.48%	10.59%	3.92%	2.48%	6.40%	3.27%	2.48%	5.75%
35	4.14%	2.48%	6.62%	8.28%	2.48%	10.76%	4.01%	2.48%	6.49%	3.34%	2.48%	5.82%
36	4.23%	2.48%	6.71%	8.46%	2.48%	10.94%	4.09%	2.48%	6.57%	3.41%	2.48%	5.89%
37	4.32%	2.48%	6.80%	8.64%	2.48%	11.12%	4.18%	2.48%	6.66%	3.48%	2.48%	5.96%
38	4.41%	2.48%	6.89%	8.82%	2.48%	11.30%	4.27%	2.48%	6.75%	3.55%	2.48%	6.03%
39	4.50%	2.48%	6.98%	9.01%	2.48%	11.49%	4.35%	2.48%	6.83%	3.63%	2.48%	6.11%
40	4.60%	2.48%	7.08%	9.20%	2.48%	11.68%	4.45%	2.48%	6.93%	3.70%	2.48%	6.18%
41	4.69%	2.48%	7.17%	9.39%	2.48%	11.87%	4.54%	2.48%	7.02%	3.78%	2.48%	6.26%
42	4.79%	2.48%	7.27%	9.58%	2.48%	12.06%	4.63%	2.48%	7.11%	3.86%	2.48%	6.34%
43	4.89%	2.48%	7.37%	9.78%	2.48%	12.26%	4.72%	2.48%	7.20%	3.94%	2.48%	6.42%
44	4.99%	2.48%	7.47%	9.99%	2.48%	12.47%	4.82%	2.48%	7.30%	4.02%	2.48%	6.50%
45	5.09%	2.48%	7.57%	10.19%	2.48%	12.67%	4.91%	2.48%	7.39%	4.09%	2.48%	6.57%
46	5.20%	2.48%	7.68%	10.39%	2.48%	12.87%	5.00%	2.48%	7.48%	4.17%	2.48%	6.65%
47	5.29%	2.48%	7.77%	10.59%	2.48%	13.07%	5.09%	2.48%	7.57%	4.25%	2.48%	6.73%
48	5.39%	2.48%	7.87%	10.78%	2.48%	13.26%	5.18%	2.48%	7.66%	4.32%	2.48%	6.80%
49	5.49%	2.48%	7.97%	10.98%	2.48%	13.46%	5.27%	2.48%	7.75%	4.39%	2.48%	6.87%
50	5.58%	2.48%	8.06%	11.17%	2.48%	13.65%	5.36%	2.48%	7.84%	4.47%	2.48%	6.95%
51	5.68%	2.48%	8.16%	11.36%	2.48%	13.84%	5.45%	2.48%	7.93%	4.54%	2.48%	7.02%
52	5.78%	2.48%	8.26%	11.56%	2.48%	14.04%	5.53%	2.48%	8.01%	4.61%	2.48%	7.09%
53	5.87%	2.48%	8.35%	11.74%	2.48%	14.22%	5.60%	2.48%	8.08%	4.67%	2.48%	7.15%
54	5.96%	2.48%	8.44%	11.92%	2.48%	14.40%	5.65%	2.48%	8.13%	4.71%	2.48%	7.19%
55	6.03%	2.48%	8.51%	12.06%	2.48%	14.54%	5.69%	2.48%	8.17%	4.74%	2.48%	7.22%
56	6.08%	2.48%	8.56%	12.16%	2.48%	14.64%	5.71%	2.48%	8.19%	4.76%	2.48%	7.24%
57	6.11%	2.48%	8.59%	12.22%	2.48%	14.70%	5.71%	2.48%	8.19%	4.76%	2.48%	7.24%
58	6.12%	2.48%	8.60%	12.23%	2.48%	14.71%	5.89%	2.48%	8.37%	4.91%	2.48%	7.39%
59	6.12%	2.48%	8.60%	12.23%	2.48%	14.71%	6.09%	2.48%	8.57%	5.08%	2.48%	7.56%
60	6.12%	2.48%	8.60%	12.23%	2.48%	14.71%	6.09%	2.48%	8.57%	5.08%	2.48%	7.56%

Members do not pay COLA contributions

Assumptions:
Interest: 7.00%
Salary: 2019 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 2044 using MP-2019 (blended 35% Male / 65% Female)
Administrative expenses: Rates have been loaded by 3.1% to account for expected administrative expenses allocated to the members.

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Union of American Physicians & Dentists (10,11) Effective July 1, 2020 through November 15, 2020												
Entry Age	Plan 5A			Plan 5B			Plan 5C			Plan 7		
	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total
16	3.01%	1.98%	4.99%	6.03%	1.98%	8.01%	2.92%	1.98%	4.90%	2.43%	1.98%	4.41%
17	3.01%	1.98%	4.99%	6.03%	1.98%	8.01%	2.92%	1.98%	4.90%	2.43%	1.98%	4.41%
18	3.01%	1.98%	4.99%	6.03%	1.98%	8.01%	2.92%	1.98%	4.90%	2.43%	1.98%	4.41%
19	3.01%	1.98%	4.99%	6.03%	1.98%	8.01%	2.92%	1.98%	4.90%	2.43%	1.98%	4.41%
20	3.01%	1.98%	4.99%	6.03%	1.98%	8.01%	2.92%	1.98%	4.90%	2.43%	1.98%	4.41%
21	3.08%	1.98%	5.06%	6.16%	1.98%	8.14%	2.98%	1.98%	4.96%	2.48%	1.98%	4.46%
22	3.14%	1.98%	5.12%	6.29%	1.98%	8.27%	3.04%	1.98%	5.02%	2.54%	1.98%	4.52%
23	3.21%	1.98%	5.19%	6.43%	1.98%	8.41%	3.11%	1.98%	5.09%	2.59%	1.98%	4.57%
24	3.28%	1.98%	5.26%	6.56%	1.98%	8.54%	3.18%	1.98%	5.16%	2.65%	1.98%	4.63%
25	3.35%	1.98%	5.33%	6.71%	1.98%	8.69%	3.24%	1.98%	5.22%	2.70%	1.98%	4.68%
26	3.42%	1.98%	5.40%	6.85%	1.98%	8.83%	3.31%	1.98%	5.29%	2.76%	1.98%	4.74%
27	3.50%	1.98%	5.48%	7.00%	1.98%	8.98%	3.38%	1.98%	5.36%	2.82%	1.98%	4.80%
28	3.57%	1.98%	5.55%	7.15%	1.98%	9.13%	3.46%	1.98%	5.44%	2.88%	1.98%	4.86%
29	3.65%	1.98%	5.63%	7.30%	1.98%	9.28%	3.53%	1.98%	5.51%	2.94%	1.98%	4.92%
30	3.73%	1.98%	5.71%	7.45%	1.98%	9.43%	3.61%	1.98%	5.59%	3.00%	1.98%	4.98%
31	3.81%	1.98%	5.79%	7.61%	1.98%	9.59%	3.68%	1.98%	5.66%	3.07%	1.98%	5.05%
32	3.89%	1.98%	5.87%	7.77%	1.98%	9.75%	3.76%	1.98%	5.74%	3.13%	1.98%	5.11%
33	3.97%	1.98%	5.95%	7.94%	1.98%	9.92%	3.84%	1.98%	5.82%	3.20%	1.98%	5.18%
34	4.05%	1.98%	6.03%	8.11%	1.98%	10.09%	3.92%	1.98%	5.90%	3.27%	1.98%	5.25%
35	4.14%	1.98%	6.12%	8.28%	1.98%	10.26%	4.01%	1.98%	5.99%	3.34%	1.98%	5.32%
36	4.23%	1.98%	6.21%	8.46%	1.98%	10.44%	4.09%	1.98%	6.07%	3.41%	1.98%	5.39%
37	4.32%	1.98%	6.30%	8.64%	1.98%	10.62%	4.18%	1.98%	6.16%	3.48%	1.98%	5.46%
38	4.41%	1.98%	6.39%	8.82%	1.98%	10.80%	4.27%	1.98%	6.25%	3.55%	1.98%	5.53%
39	4.50%	1.98%	6.48%	9.01%	1.98%	10.99%	4.35%	1.98%	6.33%	3.63%	1.98%	5.61%
40	4.60%	1.98%	6.58%	9.20%	1.98%	11.18%	4.45%	1.98%	6.43%	3.70%	1.98%	5.68%
41	4.69%	1.98%	6.67%	9.39%	1.98%	11.37%	4.54%	1.98%	6.52%	3.78%	1.98%	5.76%
42	4.79%	1.98%	6.77%	9.58%	1.98%	11.56%	4.63%	1.98%	6.61%	3.86%	1.98%	5.84%
43	4.89%	1.98%	6.87%	9.78%	1.98%	11.76%	4.72%	1.98%	6.70%	3.94%	1.98%	5.92%
44	4.99%	1.98%	6.97%	9.99%	1.98%	11.97%	4.82%	1.98%	6.80%	4.02%	1.98%	6.00%
45	5.09%	1.98%	7.07%	10.19%	1.98%	12.17%	4.91%	1.98%	6.89%	4.09%	1.98%	6.07%
46	5.20%	1.98%	7.18%	10.39%	1.98%	12.37%	5.00%	1.98%	6.98%	4.17%	1.98%	6.15%
47	5.29%	1.98%	7.27%	10.59%	1.98%	12.57%	5.09%	1.98%	7.07%	4.25%	1.98%	6.23%
48	5.39%	1.98%	7.37%	10.78%	1.98%	12.76%	5.18%	1.98%	7.16%	4.32%	1.98%	6.30%
49	5.49%	1.98%	7.47%	10.98%	1.98%	12.96%	5.27%	1.98%	7.25%	4.39%	1.98%	6.37%
50	5.58%	1.98%	7.56%	11.17%	1.98%	13.15%	5.36%	1.98%	7.34%	4.47%	1.98%	6.45%
51	5.68%	1.98%	7.66%	11.36%	1.98%	13.34%	5.45%	1.98%	7.43%	4.54%	1.98%	6.52%
52	5.78%	1.98%	7.76%	11.56%	1.98%	13.54%	5.53%	1.98%	7.51%	4.61%	1.98%	6.59%
53	5.87%	1.98%	7.85%	11.74%	1.98%	13.72%	5.60%	1.98%	7.58%	4.67%	1.98%	6.65%
54	5.96%	1.98%	7.94%	11.92%	1.98%	13.90%	5.65%	1.98%	7.63%	4.71%	1.98%	6.69%
55	6.03%	1.98%	8.01%	12.06%	1.98%	14.04%	5.69%	1.98%	7.67%	4.74%	1.98%	6.72%
56	6.08%	1.98%	8.06%	12.16%	1.98%	14.14%	5.71%	1.98%	7.69%	4.76%	1.98%	6.74%
57	6.11%	1.98%	8.09%	12.22%	1.98%	14.20%	5.71%	1.98%	7.69%	4.76%	1.98%	6.74%
58	6.12%	1.98%	8.10%	12.23%	1.98%	14.21%	5.89%	1.98%	7.87%	4.91%	1.98%	6.89%
59	6.12%	1.98%	8.10%	12.23%	1.98%	14.21%	6.09%	1.98%	8.07%	5.08%	1.98%	7.06%
60	6.12%	1.98%	8.10%	12.23%	1.98%	14.21%	6.09%	1.98%	8.07%	5.08%	1.98%	7.06%

Members do not pay COLA contributions

Assumptions:
Interest: 7.00%
Salary: 2019 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 2044 using MP-2019 (blended 35% Male / 65% Female)
Administrative expenses: Rates have been loaded by 3.1% to account for expected administrative expenses allocated to the members.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

**APPENDIX E – CONTRIBUTION RATES WITH MEMBER COST SHARING
ADJUSTMENTS**

Union of American Physicians & Dentists (10,11) Effective November 16, 2020												
Entry Age	Plan 5A			Plan 5B			Plan 5C			Plan 7		
	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total
16	3.01%	2.48%	5.49%	6.03%	2.48%	8.51%	2.92%	2.48%	5.40%	2.43%	2.48%	4.91%
17	3.01%	2.48%	5.49%	6.03%	2.48%	8.51%	2.92%	2.48%	5.40%	2.43%	2.48%	4.91%
18	3.01%	2.48%	5.49%	6.03%	2.48%	8.51%	2.92%	2.48%	5.40%	2.43%	2.48%	4.91%
19	3.01%	2.48%	5.49%	6.03%	2.48%	8.51%	2.92%	2.48%	5.40%	2.43%	2.48%	4.91%
20	3.01%	2.48%	5.49%	6.03%	2.48%	8.51%	2.92%	2.48%	5.40%	2.43%	2.48%	4.91%
21	3.08%	2.48%	5.56%	6.16%	2.48%	8.64%	2.98%	2.48%	5.46%	2.48%	2.48%	4.96%
22	3.14%	2.48%	5.62%	6.29%	2.48%	8.77%	3.04%	2.48%	5.52%	2.54%	2.48%	5.02%
23	3.21%	2.48%	5.69%	6.43%	2.48%	8.91%	3.11%	2.48%	5.59%	2.59%	2.48%	5.07%
24	3.28%	2.48%	5.76%	6.56%	2.48%	9.04%	3.18%	2.48%	5.66%	2.65%	2.48%	5.13%
25	3.35%	2.48%	5.83%	6.71%	2.48%	9.19%	3.24%	2.48%	5.72%	2.70%	2.48%	5.18%
26	3.42%	2.48%	5.90%	6.85%	2.48%	9.33%	3.31%	2.48%	5.79%	2.76%	2.48%	5.24%
27	3.50%	2.48%	5.98%	7.00%	2.48%	9.48%	3.38%	2.48%	5.86%	2.82%	2.48%	5.30%
28	3.57%	2.48%	6.05%	7.15%	2.48%	9.63%	3.46%	2.48%	5.94%	2.88%	2.48%	5.36%
29	3.65%	2.48%	6.13%	7.30%	2.48%	9.78%	3.53%	2.48%	6.01%	2.94%	2.48%	5.42%
30	3.73%	2.48%	6.21%	7.45%	2.48%	9.93%	3.61%	2.48%	6.09%	3.00%	2.48%	5.48%
31	3.81%	2.48%	6.29%	7.61%	2.48%	10.09%	3.68%	2.48%	6.16%	3.07%	2.48%	5.55%
32	3.89%	2.48%	6.37%	7.77%	2.48%	10.25%	3.76%	2.48%	6.24%	3.13%	2.48%	5.61%
33	3.97%	2.48%	6.45%	7.94%	2.48%	10.42%	3.84%	2.48%	6.32%	3.20%	2.48%	5.68%
34	4.05%	2.48%	6.53%	8.11%	2.48%	10.59%	3.92%	2.48%	6.40%	3.27%	2.48%	5.75%
35	4.14%	2.48%	6.62%	8.28%	2.48%	10.76%	4.01%	2.48%	6.49%	3.34%	2.48%	5.82%
36	4.23%	2.48%	6.71%	8.46%	2.48%	10.94%	4.09%	2.48%	6.57%	3.41%	2.48%	5.89%
37	4.32%	2.48%	6.80%	8.64%	2.48%	11.12%	4.18%	2.48%	6.66%	3.48%	2.48%	5.96%
38	4.41%	2.48%	6.89%	8.82%	2.48%	11.30%	4.27%	2.48%	6.75%	3.55%	2.48%	6.03%
39	4.50%	2.48%	6.98%	9.01%	2.48%	11.49%	4.35%	2.48%	6.83%	3.63%	2.48%	6.11%
40	4.60%	2.48%	7.08%	9.20%	2.48%	11.68%	4.45%	2.48%	6.93%	3.70%	2.48%	6.18%
41	4.69%	2.48%	7.17%	9.39%	2.48%	11.87%	4.54%	2.48%	7.02%	3.78%	2.48%	6.26%
42	4.79%	2.48%	7.27%	9.58%	2.48%	12.06%	4.63%	2.48%	7.11%	3.86%	2.48%	6.34%
43	4.89%	2.48%	7.37%	9.78%	2.48%	12.26%	4.72%	2.48%	7.20%	3.94%	2.48%	6.42%
44	4.99%	2.48%	7.47%	9.99%	2.48%	12.47%	4.82%	2.48%	7.30%	4.02%	2.48%	6.50%
45	5.09%	2.48%	7.57%	10.19%	2.48%	12.67%	4.91%	2.48%	7.39%	4.09%	2.48%	6.57%
46	5.20%	2.48%	7.68%	10.39%	2.48%	12.87%	5.00%	2.48%	7.48%	4.17%	2.48%	6.65%
47	5.29%	2.48%	7.77%	10.59%	2.48%	13.07%	5.09%	2.48%	7.57%	4.25%	2.48%	6.73%
48	5.39%	2.48%	7.87%	10.78%	2.48%	13.26%	5.18%	2.48%	7.66%	4.32%	2.48%	6.80%
49	5.49%	2.48%	7.97%	10.98%	2.48%	13.46%	5.27%	2.48%	7.75%	4.39%	2.48%	6.87%
50	5.58%	2.48%	8.06%	11.17%	2.48%	13.65%	5.36%	2.48%	7.84%	4.47%	2.48%	6.95%
51	5.68%	2.48%	8.16%	11.36%	2.48%	13.84%	5.45%	2.48%	7.93%	4.54%	2.48%	7.02%
52	5.78%	2.48%	8.26%	11.56%	2.48%	14.04%	5.53%	2.48%	8.01%	4.61%	2.48%	7.09%
53	5.87%	2.48%	8.35%	11.74%	2.48%	14.22%	5.60%	2.48%	8.08%	4.67%	2.48%	7.15%
54	5.96%	2.48%	8.44%	11.92%	2.48%	14.40%	5.65%	2.48%	8.13%	4.71%	2.48%	7.19%
55	6.03%	2.48%	8.51%	12.06%	2.48%	14.54%	5.69%	2.48%	8.17%	4.74%	2.48%	7.22%
56	6.08%	2.48%	8.56%	12.16%	2.48%	14.64%	5.71%	2.48%	8.19%	4.76%	2.48%	7.24%
57	6.11%	2.48%	8.59%	12.22%	2.48%	14.70%	5.71%	2.48%	8.19%	4.76%	2.48%	7.24%
58	6.12%	2.48%	8.60%	12.23%	2.48%	14.71%	5.89%	2.48%	8.37%	4.91%	2.48%	7.39%
59	6.12%	2.48%	8.60%	12.23%	2.48%	14.71%	6.09%	2.48%	8.57%	5.08%	2.48%	7.56%
60	6.12%	2.48%	8.60%	12.23%	2.48%	14.71%	6.09%	2.48%	8.57%	5.08%	2.48%	7.56%

Members do not pay COLA contributions

Assumptions:

Interest: 7.00%
 Salary: 2019 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 2044 using MP-2019 (blended 35% Male / 65% Female)
 Administrative expenses: Rates have been loaded by 3.1% to account for expected administrative expenses allocated to the members.



**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

**APPENDIX E – CONTRIBUTION RATES WITH MEMBER COST SHARING
ADJUSTMENTS**

Deputy District Attorneys (17) Effective July 1, 2020												
Entry Age	Plan 5A			Plan 5B			Plan 5C			Plan 7		
	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total
16	3.01%	1.49%	4.50%	6.03%	1.49%	7.52%	2.92%	1.49%	4.41%	2.43%	1.49%	3.92%
17	3.01%	1.49%	4.50%	6.03%	1.49%	7.52%	2.92%	1.49%	4.41%	2.43%	1.49%	3.92%
18	3.01%	1.49%	4.50%	6.03%	1.49%	7.52%	2.92%	1.49%	4.41%	2.43%	1.49%	3.92%
19	3.01%	1.49%	4.50%	6.03%	1.49%	7.52%	2.92%	1.49%	4.41%	2.43%	1.49%	3.92%
20	3.01%	1.49%	4.50%	6.03%	1.49%	7.52%	2.92%	1.49%	4.41%	2.43%	1.49%	3.92%
21	3.08%	1.49%	4.57%	6.16%	1.49%	7.65%	2.98%	1.49%	4.47%	2.48%	1.49%	3.97%
22	3.14%	1.49%	4.63%	6.29%	1.49%	7.78%	3.04%	1.49%	4.53%	2.54%	1.49%	4.03%
23	3.21%	1.49%	4.70%	6.43%	1.49%	7.92%	3.11%	1.49%	4.60%	2.59%	1.49%	4.08%
24	3.28%	1.49%	4.77%	6.56%	1.49%	8.05%	3.18%	1.49%	4.67%	2.65%	1.49%	4.14%
25	3.35%	1.49%	4.84%	6.71%	1.49%	8.20%	3.24%	1.49%	4.73%	2.70%	1.49%	4.19%
26	3.42%	1.49%	4.91%	6.85%	1.49%	8.34%	3.31%	1.49%	4.80%	2.76%	1.49%	4.25%
27	3.50%	1.49%	4.99%	7.00%	1.49%	8.49%	3.38%	1.49%	4.87%	2.82%	1.49%	4.31%
28	3.57%	1.49%	5.06%	7.15%	1.49%	8.64%	3.46%	1.49%	4.95%	2.88%	1.49%	4.37%
29	3.65%	1.49%	5.14%	7.30%	1.49%	8.79%	3.53%	1.49%	5.02%	2.94%	1.49%	4.43%
30	3.73%	1.49%	5.22%	7.45%	1.49%	8.94%	3.61%	1.49%	5.10%	3.00%	1.49%	4.49%
31	3.81%	1.49%	5.30%	7.61%	1.49%	9.10%	3.68%	1.49%	5.17%	3.07%	1.49%	4.56%
32	3.89%	1.49%	5.38%	7.77%	1.49%	9.26%	3.76%	1.49%	5.25%	3.13%	1.49%	4.62%
33	3.97%	1.49%	5.46%	7.94%	1.49%	9.43%	3.84%	1.49%	5.33%	3.20%	1.49%	4.69%
34	4.05%	1.49%	5.54%	8.11%	1.49%	9.60%	3.92%	1.49%	5.41%	3.27%	1.49%	4.76%
35	4.14%	1.49%	5.63%	8.28%	1.49%	9.77%	4.01%	1.49%	5.50%	3.34%	1.49%	4.83%
36	4.23%	1.49%	5.72%	8.46%	1.49%	9.95%	4.09%	1.49%	5.58%	3.41%	1.49%	4.90%
37	4.32%	1.49%	5.81%	8.64%	1.49%	10.13%	4.18%	1.49%	5.67%	3.48%	1.49%	4.97%
38	4.41%	1.49%	5.90%	8.82%	1.49%	10.31%	4.27%	1.49%	5.76%	3.55%	1.49%	5.04%
39	4.50%	1.49%	5.99%	9.01%	1.49%	10.50%	4.35%	1.49%	5.84%	3.63%	1.49%	5.12%
40	4.60%	1.49%	6.09%	9.20%	1.49%	10.69%	4.45%	1.49%	5.94%	3.70%	1.49%	5.19%
41	4.69%	1.49%	6.18%	9.39%	1.49%	10.88%	4.54%	1.49%	6.03%	3.78%	1.49%	5.27%
42	4.79%	1.49%	6.28%	9.58%	1.49%	11.07%	4.63%	1.49%	6.12%	3.86%	1.49%	5.35%
43	4.89%	1.49%	6.38%	9.78%	1.49%	11.27%	4.72%	1.49%	6.21%	3.94%	1.49%	5.43%
44	4.99%	1.49%	6.48%	9.99%	1.49%	11.48%	4.82%	1.49%	6.31%	4.02%	1.49%	5.51%
45	5.09%	1.49%	6.58%	10.19%	1.49%	11.68%	4.91%	1.49%	6.40%	4.09%	1.49%	5.58%
46	5.20%	1.49%	6.69%	10.39%	1.49%	11.88%	5.00%	1.49%	6.49%	4.17%	1.49%	5.66%
47	5.29%	1.49%	6.78%	10.59%	1.49%	12.08%	5.09%	1.49%	6.58%	4.25%	1.49%	5.74%
48	5.39%	1.49%	6.88%	10.78%	1.49%	12.27%	5.18%	1.49%	6.67%	4.32%	1.49%	5.81%
49	5.49%	1.49%	6.98%	10.98%	1.49%	12.47%	5.27%	1.49%	6.76%	4.39%	1.49%	5.88%
50	5.58%	1.49%	7.07%	11.17%	1.49%	12.66%	5.36%	1.49%	6.85%	4.47%	1.49%	5.96%
51	5.68%	1.49%	7.17%	11.36%	1.49%	12.85%	5.45%	1.49%	6.94%	4.54%	1.49%	6.03%
52	5.78%	1.49%	7.27%	11.56%	1.49%	13.05%	5.53%	1.49%	7.02%	4.61%	1.49%	6.10%
53	5.87%	1.49%	7.36%	11.74%	1.49%	13.23%	5.60%	1.49%	7.09%	4.67%	1.49%	6.16%
54	5.96%	1.49%	7.45%	11.92%	1.49%	13.41%	5.65%	1.49%	7.14%	4.71%	1.49%	6.20%
55	6.03%	1.49%	7.52%	12.06%	1.49%	13.55%	5.69%	1.49%	7.18%	4.74%	1.49%	6.23%
56	6.08%	1.49%	7.57%	12.16%	1.49%	13.65%	5.71%	1.49%	7.20%	4.76%	1.49%	6.25%
57	6.11%	1.49%	7.60%	12.22%	1.49%	13.71%	5.71%	1.49%	7.20%	4.76%	1.49%	6.25%
58	6.12%	1.49%	7.61%	12.23%	1.49%	13.72%	5.89%	1.49%	7.38%	4.91%	1.49%	6.40%
59	6.12%	1.49%	7.61%	12.23%	1.49%	13.72%	6.09%	1.49%	7.58%	5.08%	1.49%	6.57%
60	6.12%	1.49%	7.61%	12.23%	1.49%	13.72%	6.09%	1.49%	7.58%	5.08%	1.49%	6.57%

Members do not pay COLA contributions

Assumptions:
Interest: 7.00%
Salary: 2016 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 2044 using MP-2019 (blended 35% Male / 65% Female)
Administrative expenses: Rates have been loaded by 3.1% to account for expected administrative expenses allocated to the members.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

**APPENDIX E – CONTRIBUTION RATES WITH MEMBER COST SHARING
ADJUSTMENTS**

Civil Attorneys Association (30) and Unrepresented Confidential Attorneys (36) Effective July 1, 2020												
Entry Age	Plan 5A			Plan 5B			Plan 5C			Plan 7		
	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total
16	3.01%	1.48%	4.49%	6.03%	1.48%	7.51%	2.92%	1.48%	4.40%	2.43%	1.48%	3.91%
17	3.01%	1.48%	4.49%	6.03%	1.48%	7.51%	2.92%	1.48%	4.40%	2.43%	1.48%	3.91%
18	3.01%	1.48%	4.49%	6.03%	1.48%	7.51%	2.92%	1.48%	4.40%	2.43%	1.48%	3.91%
19	3.01%	1.48%	4.49%	6.03%	1.48%	7.51%	2.92%	1.48%	4.40%	2.43%	1.48%	3.91%
20	3.01%	1.48%	4.49%	6.03%	1.48%	7.51%	2.92%	1.48%	4.40%	2.43%	1.48%	3.91%
21	3.08%	1.48%	4.56%	6.16%	1.48%	7.64%	2.98%	1.48%	4.46%	2.48%	1.48%	3.96%
22	3.14%	1.48%	4.62%	6.29%	1.48%	7.77%	3.04%	1.48%	4.52%	2.54%	1.48%	4.02%
23	3.21%	1.48%	4.69%	6.43%	1.48%	7.91%	3.11%	1.48%	4.59%	2.59%	1.48%	4.07%
24	3.28%	1.48%	4.76%	6.56%	1.48%	8.04%	3.18%	1.48%	4.66%	2.65%	1.48%	4.13%
25	3.35%	1.48%	4.83%	6.71%	1.48%	8.19%	3.24%	1.48%	4.72%	2.70%	1.48%	4.18%
26	3.42%	1.48%	4.90%	6.85%	1.48%	8.33%	3.31%	1.48%	4.79%	2.76%	1.48%	4.24%
27	3.50%	1.48%	4.98%	7.00%	1.48%	8.48%	3.38%	1.48%	4.86%	2.82%	1.48%	4.30%
28	3.57%	1.48%	5.05%	7.15%	1.48%	8.63%	3.46%	1.48%	4.94%	2.88%	1.48%	4.36%
29	3.65%	1.48%	5.13%	7.30%	1.48%	8.78%	3.53%	1.48%	5.01%	2.94%	1.48%	4.42%
30	3.73%	1.48%	5.21%	7.45%	1.48%	8.93%	3.61%	1.48%	5.09%	3.00%	1.48%	4.48%
31	3.81%	1.48%	5.29%	7.61%	1.48%	9.09%	3.68%	1.48%	5.16%	3.07%	1.48%	4.55%
32	3.89%	1.48%	5.37%	7.77%	1.48%	9.25%	3.76%	1.48%	5.24%	3.13%	1.48%	4.61%
33	3.97%	1.48%	5.45%	7.94%	1.48%	9.42%	3.84%	1.48%	5.32%	3.20%	1.48%	4.68%
34	4.05%	1.48%	5.53%	8.11%	1.48%	9.59%	3.92%	1.48%	5.40%	3.27%	1.48%	4.75%
35	4.14%	1.48%	5.62%	8.28%	1.48%	9.76%	4.01%	1.48%	5.49%	3.34%	1.48%	4.82%
36	4.23%	1.48%	5.71%	8.46%	1.48%	9.94%	4.09%	1.48%	5.57%	3.41%	1.48%	4.89%
37	4.32%	1.48%	5.80%	8.64%	1.48%	10.12%	4.18%	1.48%	5.66%	3.48%	1.48%	4.96%
38	4.41%	1.48%	5.89%	8.82%	1.48%	10.30%	4.27%	1.48%	5.75%	3.55%	1.48%	5.03%
39	4.50%	1.48%	5.98%	9.01%	1.48%	10.49%	4.35%	1.48%	5.83%	3.63%	1.48%	5.11%
40	4.60%	1.48%	6.08%	9.20%	1.48%	10.68%	4.45%	1.48%	5.93%	3.70%	1.48%	5.18%
41	4.69%	1.48%	6.17%	9.39%	1.48%	10.87%	4.54%	1.48%	6.02%	3.78%	1.48%	5.26%
42	4.79%	1.48%	6.27%	9.58%	1.48%	11.06%	4.63%	1.48%	6.11%	3.86%	1.48%	5.34%
43	4.89%	1.48%	6.37%	9.78%	1.48%	11.26%	4.72%	1.48%	6.20%	3.94%	1.48%	5.42%
44	4.99%	1.48%	6.47%	9.99%	1.48%	11.47%	4.82%	1.48%	6.30%	4.02%	1.48%	5.50%
45	5.09%	1.48%	6.57%	10.19%	1.48%	11.67%	4.91%	1.48%	6.39%	4.09%	1.48%	5.57%
46	5.20%	1.48%	6.68%	10.39%	1.48%	11.87%	5.00%	1.48%	6.48%	4.17%	1.48%	5.65%
47	5.29%	1.48%	6.77%	10.59%	1.48%	12.07%	5.09%	1.48%	6.57%	4.25%	1.48%	5.73%
48	5.39%	1.48%	6.87%	10.78%	1.48%	12.26%	5.18%	1.48%	6.66%	4.32%	1.48%	5.80%
49	5.49%	1.48%	6.97%	10.98%	1.48%	12.46%	5.27%	1.48%	6.75%	4.39%	1.48%	5.87%
50	5.58%	1.48%	7.06%	11.17%	1.48%	12.65%	5.36%	1.48%	6.84%	4.47%	1.48%	5.95%
51	5.68%	1.48%	7.16%	11.36%	1.48%	12.84%	5.45%	1.48%	6.93%	4.54%	1.48%	6.02%
52	5.78%	1.48%	7.26%	11.56%	1.48%	13.04%	5.53%	1.48%	7.01%	4.61%	1.48%	6.09%
53	5.87%	1.48%	7.35%	11.74%	1.48%	13.22%	5.60%	1.48%	7.08%	4.67%	1.48%	6.15%
54	5.96%	1.48%	7.44%	11.92%	1.48%	13.40%	5.65%	1.48%	7.13%	4.71%	1.48%	6.19%
55	6.03%	1.48%	7.51%	12.06%	1.48%	13.54%	5.69%	1.48%	7.17%	4.74%	1.48%	6.22%
56	6.08%	1.48%	7.56%	12.16%	1.48%	13.64%	5.71%	1.48%	7.19%	4.76%	1.48%	6.24%
57	6.11%	1.48%	7.59%	12.22%	1.48%	13.70%	5.71%	1.48%	7.19%	4.76%	1.48%	6.24%
58	6.12%	1.48%	7.60%	12.23%	1.48%	13.71%	5.89%	1.48%	7.37%	4.91%	1.48%	6.39%
59	6.12%	1.48%	7.60%	12.23%	1.48%	13.71%	6.09%	1.48%	7.57%	5.08%	1.48%	6.56%
60	6.12%	1.48%	7.60%	12.23%	1.48%	13.71%	6.09%	1.48%	7.57%	5.08%	1.48%	6.56%

Members do not pay COLA contributions

Assumptions:
Interest: 7.00%
Salary: 2019 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 2044 using MP-2019 (blended 35% Male / 65% Female)
Administrative expenses: Rates have been loaded by 3.1% to account for expected administrative expenses allocated to the members.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

**APPENDIX E – CONTRIBUTION RATES WITH MEMBER COST SHARING
ADJUSTMENTS**

Unrepresented Managers (incl CEO) (35,40,41,42,43) Effective July 1, 2020												
Entry Age	Plan 5A			Plan 5B			Plan 5C			Plan 7		
	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total	Basic	Cost-Sharing	Total
16	3.01%	2.47%	5.48%	6.03%	2.47%	8.50%	2.92%	2.47%	5.39%	2.43%	2.47%	4.90%
17	3.01%	2.47%	5.48%	6.03%	2.47%	8.50%	2.92%	2.47%	5.39%	2.43%	2.47%	4.90%
18	3.01%	2.47%	5.48%	6.03%	2.47%	8.50%	2.92%	2.47%	5.39%	2.43%	2.47%	4.90%
19	3.01%	2.47%	5.48%	6.03%	2.47%	8.50%	2.92%	2.47%	5.39%	2.43%	2.47%	4.90%
20	3.01%	2.47%	5.48%	6.03%	2.47%	8.50%	2.92%	2.47%	5.39%	2.43%	2.47%	4.90%
21	3.08%	2.47%	5.55%	6.16%	2.47%	8.63%	2.98%	2.47%	5.45%	2.48%	2.47%	4.95%
22	3.14%	2.47%	5.61%	6.29%	2.47%	8.76%	3.04%	2.47%	5.51%	2.54%	2.47%	5.01%
23	3.21%	2.47%	5.68%	6.43%	2.47%	8.90%	3.11%	2.47%	5.58%	2.59%	2.47%	5.06%
24	3.28%	2.47%	5.75%	6.56%	2.47%	9.03%	3.18%	2.47%	5.65%	2.65%	2.47%	5.12%
25	3.35%	2.47%	5.82%	6.71%	2.47%	9.18%	3.24%	2.47%	5.71%	2.70%	2.47%	5.17%
26	3.42%	2.47%	5.89%	6.85%	2.47%	9.32%	3.31%	2.47%	5.78%	2.76%	2.47%	5.23%
27	3.50%	2.47%	5.97%	7.00%	2.47%	9.47%	3.38%	2.47%	5.85%	2.82%	2.47%	5.29%
28	3.57%	2.47%	6.04%	7.15%	2.47%	9.62%	3.46%	2.47%	5.93%	2.88%	2.47%	5.35%
29	3.65%	2.47%	6.12%	7.30%	2.47%	9.77%	3.53%	2.47%	6.00%	2.94%	2.47%	5.41%
30	3.73%	2.47%	6.20%	7.45%	2.47%	9.92%	3.61%	2.47%	6.08%	3.00%	2.47%	5.47%
31	3.81%	2.47%	6.28%	7.61%	2.47%	10.08%	3.68%	2.47%	6.15%	3.07%	2.47%	5.54%
32	3.89%	2.47%	6.36%	7.77%	2.47%	10.24%	3.76%	2.47%	6.23%	3.13%	2.47%	5.60%
33	3.97%	2.47%	6.44%	7.94%	2.47%	10.41%	3.84%	2.47%	6.31%	3.20%	2.47%	5.67%
34	4.05%	2.47%	6.52%	8.11%	2.47%	10.58%	3.92%	2.47%	6.39%	3.27%	2.47%	5.74%
35	4.14%	2.47%	6.61%	8.28%	2.47%	10.75%	4.01%	2.47%	6.48%	3.34%	2.47%	5.81%
36	4.23%	2.47%	6.70%	8.46%	2.47%	10.93%	4.09%	2.47%	6.56%	3.41%	2.47%	5.88%
37	4.32%	2.47%	6.79%	8.64%	2.47%	11.11%	4.18%	2.47%	6.65%	3.48%	2.47%	5.95%
38	4.41%	2.47%	6.88%	8.82%	2.47%	11.29%	4.27%	2.47%	6.74%	3.55%	2.47%	6.02%
39	4.50%	2.47%	6.97%	9.01%	2.47%	11.48%	4.35%	2.47%	6.82%	3.63%	2.47%	6.10%
40	4.60%	2.47%	7.07%	9.20%	2.47%	11.67%	4.45%	2.47%	6.92%	3.70%	2.47%	6.17%
41	4.69%	2.47%	7.16%	9.39%	2.47%	11.86%	4.54%	2.47%	7.01%	3.78%	2.47%	6.25%
42	4.79%	2.47%	7.26%	9.58%	2.47%	12.05%	4.63%	2.47%	7.10%	3.86%	2.47%	6.33%
43	4.89%	2.47%	7.36%	9.78%	2.47%	12.25%	4.72%	2.47%	7.19%	3.94%	2.47%	6.41%
44	4.99%	2.47%	7.46%	9.99%	2.47%	12.46%	4.82%	2.47%	7.29%	4.02%	2.47%	6.49%
45	5.09%	2.47%	7.56%	10.19%	2.47%	12.66%	4.91%	2.47%	7.38%	4.09%	2.47%	6.56%
46	5.20%	2.47%	7.67%	10.39%	2.47%	12.86%	5.00%	2.47%	7.47%	4.17%	2.47%	6.64%
47	5.29%	2.47%	7.76%	10.59%	2.47%	13.06%	5.09%	2.47%	7.56%	4.25%	2.47%	6.72%
48	5.39%	2.47%	7.86%	10.78%	2.47%	13.25%	5.18%	2.47%	7.65%	4.32%	2.47%	6.79%
49	5.49%	2.47%	7.96%	10.98%	2.47%	13.45%	5.27%	2.47%	7.74%	4.39%	2.47%	6.86%
50	5.58%	2.47%	8.05%	11.17%	2.47%	13.64%	5.36%	2.47%	7.83%	4.47%	2.47%	6.94%
51	5.68%	2.47%	8.15%	11.36%	2.47%	13.83%	5.45%	2.47%	7.92%	4.54%	2.47%	7.01%
52	5.78%	2.47%	8.25%	11.56%	2.47%	14.03%	5.53%	2.47%	8.00%	4.61%	2.47%	7.08%
53	5.87%	2.47%	8.34%	11.74%	2.47%	14.21%	5.60%	2.47%	8.07%	4.67%	2.47%	7.14%
54	5.96%	2.47%	8.43%	11.92%	2.47%	14.39%	5.65%	2.47%	8.12%	4.71%	2.47%	7.18%
55	6.03%	2.47%	8.50%	12.06%	2.47%	14.53%	5.69%	2.47%	8.16%	4.74%	2.47%	7.21%
56	6.08%	2.47%	8.55%	12.16%	2.47%	14.63%	5.71%	2.47%	8.18%	4.76%	2.47%	7.23%
57	6.11%	2.47%	8.58%	12.22%	2.47%	14.69%	5.71%	2.47%	8.18%	4.76%	2.47%	7.23%
58	6.12%	2.47%	8.59%	12.23%	2.47%	14.70%	5.89%	2.47%	8.36%	4.91%	2.47%	7.38%
59	6.12%	2.47%	8.59%	12.23%	2.47%	14.70%	6.09%	2.47%	8.56%	5.08%	2.47%	7.55%
60	6.12%	2.47%	8.59%	12.23%	2.47%	14.70%	6.09%	2.47%	8.56%	5.08%	2.47%	7.55%

Members do not pay COLA contributions

Assumptions:
Interest: 7.00%
Salary: 2019 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 2044 using MP-2019 (blended 35% Male / 65% Female)
Administrative expenses: Rates have been loaded by 3.1% to account for expected administrative expenses allocated to the members.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

**APPENDIX E – CONTRIBUTION RATES WITH MEMBER COST SHARING
ADJUSTMENTS**

Unrepresented Managers Safety (35,40,41,42,43) Effective July 1, 2020									
Entry Age	Plan 4A & 6A			Plan 4B			Plan 4C & 6B		
	Basic	Cost Sharing	Total	Basic	Cost Sharing	Total	Basic	Cost Sharing	Total
16	5.58%	0.83%	6.41%	11.15%	0.83%	11.98%	5.38%	0.83%	6.21%
17	5.58%	0.83%	6.41%	11.15%	0.83%	11.98%	5.38%	0.83%	6.21%
18	5.58%	0.83%	6.41%	11.15%	0.83%	11.98%	5.38%	0.83%	6.21%
19	5.58%	0.83%	6.41%	11.15%	0.83%	11.98%	5.38%	0.83%	6.21%
20	5.58%	0.83%	6.41%	11.15%	0.83%	11.98%	5.38%	0.83%	6.21%
21	5.68%	0.83%	6.51%	11.36%	0.83%	12.19%	5.48%	0.83%	6.31%
22	5.79%	0.83%	6.62%	11.57%	0.83%	12.40%	5.58%	0.83%	6.41%
23	5.89%	0.83%	6.72%	11.79%	0.83%	12.62%	5.68%	0.83%	6.51%
24	6.00%	0.83%	6.83%	12.01%	0.83%	12.84%	5.79%	0.83%	6.62%
25	6.11%	0.83%	6.94%	12.23%	0.83%	13.06%	5.90%	0.83%	6.73%
26	6.23%	0.83%	7.06%	12.46%	0.83%	13.29%	6.00%	0.83%	6.83%
27	6.34%	0.83%	7.17%	12.69%	0.83%	13.52%	6.12%	0.83%	6.95%
28	6.46%	0.83%	7.29%	12.92%	0.83%	13.75%	6.23%	0.83%	7.06%
29	6.58%	0.83%	7.41%	13.16%	0.83%	13.99%	6.34%	0.83%	7.17%
30	6.70%	0.83%	7.53%	13.40%	0.83%	14.23%	6.46%	0.83%	7.29%
31	6.83%	0.83%	7.66%	13.65%	0.83%	14.48%	6.58%	0.83%	7.41%
32	6.95%	0.83%	7.78%	13.91%	0.83%	14.74%	6.70%	0.83%	7.53%
33	7.08%	0.83%	7.91%	14.17%	0.83%	15.00%	6.83%	0.83%	7.66%
34	7.22%	0.83%	8.05%	14.43%	0.83%	15.26%	6.96%	0.83%	7.79%
35	7.35%	0.83%	8.18%	14.70%	0.83%	15.53%	7.08%	0.83%	7.91%
36	7.49%	0.83%	8.32%	14.98%	0.83%	15.81%	7.21%	0.83%	8.04%
37	7.63%	0.83%	8.46%	15.25%	0.83%	16.08%	7.35%	0.83%	8.18%
38	7.77%	0.83%	8.60%	15.53%	0.83%	16.36%	7.48%	0.83%	8.31%
39	7.91%	0.83%	8.74%	15.82%	0.83%	16.65%	7.62%	0.83%	8.45%
40	8.06%	0.83%	8.89%	16.11%	0.83%	16.94%	7.75%	0.83%	8.58%
41	8.20%	0.83%	9.03%	16.41%	0.83%	17.24%	7.89%	0.83%	8.72%
42	8.36%	0.83%	9.19%	16.71%	0.83%	17.54%	8.04%	0.83%	8.87%
43	8.51%	0.83%	9.34%	17.02%	0.83%	17.85%	8.18%	0.83%	9.01%
44	8.67%	0.83%	9.50%	17.33%	0.83%	18.16%	8.33%	0.83%	9.16%
45	8.83%	0.83%	9.66%	17.65%	0.83%	18.48%	8.47%	0.83%	9.30%
46	8.99%	0.83%	9.82%	17.98%	0.83%	18.81%	8.61%	0.83%	9.44%
47	9.15%	0.83%	9.98%	18.31%	0.83%	19.14%	8.74%	0.83%	9.57%
48	9.31%	0.83%	10.14%	18.62%	0.83%	19.45%	8.85%	0.83%	9.68%
49	9.45%	0.83%	10.28%	18.89%	0.83%	19.72%	8.93%	0.83%	9.76%
50	9.56%	0.83%	10.39%	19.12%	0.83%	19.95%	8.98%	0.83%	9.81%
51	9.63%	0.83%	10.46%	19.25%	0.83%	20.08%	8.98%	0.83%	9.81%
52	9.65%	0.83%	10.48%	19.30%	0.83%	20.13%	8.98%	0.83%	9.81%
53	9.65%	0.83%	10.48%	19.30%	0.83%	20.13%	9.21%	0.83%	10.04%
54	9.65%	0.83%	10.48%	19.30%	0.83%	20.13%	9.52%	0.83%	10.35%
55	9.65%	0.83%	10.48%	19.30%	0.83%	20.13%	9.52%	0.83%	10.35%
56	9.65%	0.83%	10.48%	19.30%	0.83%	20.13%	9.52%	0.83%	10.35%
57	9.65%	0.83%	10.48%	19.30%	0.83%	20.13%	9.52%	0.83%	10.35%
58	9.65%	0.83%	10.48%	19.30%	0.83%	20.13%	9.52%	0.83%	10.35%
59	9.65%	0.83%	10.48%	19.30%	0.83%	20.13%	9.52%	0.83%	10.35%
60	9.65%	0.83%	10.48%	19.30%	0.83%	20.13%	9.52%	0.83%	10.35%

Members do not pay COLA contributions

Assumptions:
Interest: 7.00%
Salary: 2019 Valuation Scale (Service based, includes wage inflation at 3.00%)
Unisex: Public Safety 2010 – PUBS-2010 – Retiree Mortality Table, projected to 2044 using MP-2019
Mortality: (blended 80% Male / 20% Female)
Administrative expenses: Rates have been loaded by 3.1% to account for expected administrative expenses allocated to the members.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2019**

**APPENDIX E – CONTRIBUTION RATES WITH MEMBER COST SHARING
ADJUSTMENTS**

Fire Fighters Local 2046 (12,13), Deputy Sheriffs' Association - Safety (14,15) Probation Peace Officers (18,19), Sheriffs Managers Association (44)									
Effective July 1, 2020									
Entry Age	Plan 4A & 6A			Plan 4B			Plan 4C & 6B		
	Basic	Cost Sharing	Total	Basic	Cost Sharing	Total	Basic	Cost Sharing	Total
16	5.58%	5.97%	11.55%	11.15%	5.97%	17.12%	5.38%	5.97%	11.35%
17	5.58%	5.97%	11.55%	11.15%	5.97%	17.12%	5.38%	5.97%	11.35%
18	5.58%	5.97%	11.55%	11.15%	5.97%	17.12%	5.38%	5.97%	11.35%
19	5.58%	5.97%	11.55%	11.15%	5.97%	17.12%	5.38%	5.97%	11.35%
20	5.58%	5.97%	11.55%	11.15%	5.97%	17.12%	5.38%	5.97%	11.35%
21	5.68%	5.97%	11.65%	11.36%	5.97%	17.33%	5.48%	5.97%	11.45%
22	5.79%	5.97%	11.76%	11.57%	5.97%	17.54%	5.58%	5.97%	11.55%
23	5.89%	5.97%	11.86%	11.79%	5.97%	17.76%	5.68%	5.97%	11.65%
24	6.00%	5.97%	11.97%	12.01%	5.97%	17.98%	5.79%	5.97%	11.76%
25	6.11%	5.97%	12.08%	12.23%	5.97%	18.20%	5.90%	5.97%	11.87%
26	6.23%	5.97%	12.20%	12.46%	5.97%	18.43%	6.00%	5.97%	11.97%
27	6.34%	5.97%	12.31%	12.69%	5.97%	18.66%	6.12%	5.97%	12.09%
28	6.46%	5.97%	12.43%	12.92%	5.97%	18.89%	6.23%	5.97%	12.20%
29	6.58%	5.97%	12.55%	13.16%	5.97%	19.13%	6.34%	5.97%	12.31%
30	6.70%	5.97%	12.67%	13.40%	5.97%	19.37%	6.46%	5.97%	12.43%
31	6.83%	5.97%	12.80%	13.65%	5.97%	19.62%	6.58%	5.97%	12.55%
32	6.95%	5.97%	12.92%	13.91%	5.97%	19.88%	6.70%	5.97%	12.67%
33	7.08%	5.97%	13.05%	14.17%	5.97%	20.14%	6.83%	5.97%	12.80%
34	7.22%	5.97%	13.19%	14.43%	5.97%	20.40%	6.96%	5.97%	12.93%
35	7.35%	5.97%	13.32%	14.70%	5.97%	20.67%	7.08%	5.97%	13.05%
36	7.49%	5.97%	13.46%	14.98%	5.97%	20.95%	7.21%	5.97%	13.18%
37	7.63%	5.97%	13.60%	15.25%	5.97%	21.22%	7.35%	5.97%	13.32%
38	7.77%	5.97%	13.74%	15.53%	5.97%	21.50%	7.48%	5.97%	13.45%
39	7.91%	5.97%	13.88%	15.82%	5.97%	21.79%	7.62%	5.97%	13.59%
40	8.06%	5.97%	14.03%	16.11%	5.97%	22.08%	7.75%	5.97%	13.72%
41	8.20%	5.97%	14.17%	16.41%	5.97%	22.38%	7.89%	5.97%	13.86%
42	8.36%	5.97%	14.33%	16.71%	5.97%	22.68%	8.04%	5.97%	14.01%
43	8.51%	5.97%	14.48%	17.02%	5.97%	22.99%	8.18%	5.97%	14.15%
44	8.67%	5.97%	14.64%	17.33%	5.97%	23.30%	8.33%	5.97%	14.30%
45	8.83%	5.97%	14.80%	17.65%	5.97%	23.62%	8.47%	5.97%	14.44%
46	8.99%	5.97%	14.96%	17.98%	5.97%	23.95%	8.61%	5.97%	14.58%
47	9.15%	5.97%	15.12%	18.31%	5.97%	24.28%	8.74%	5.97%	14.71%
48	9.31%	5.97%	15.28%	18.62%	5.97%	24.59%	8.85%	5.97%	14.82%
49	9.45%	5.97%	15.42%	18.89%	5.97%	24.86%	8.93%	5.97%	14.90%
50	9.56%	5.97%	15.53%	19.12%	5.97%	25.09%	8.98%	5.97%	14.95%
51	9.63%	5.97%	15.60%	19.25%	5.97%	25.22%	8.98%	5.97%	14.95%
52	9.65%	5.97%	15.62%	19.30%	5.97%	25.27%	8.98%	5.97%	14.95%
53	9.65%	5.97%	15.62%	19.30%	5.97%	25.27%	9.21%	5.97%	15.18%
54	9.65%	5.97%	15.62%	19.30%	5.97%	25.27%	9.52%	5.97%	15.49%
55	9.65%	5.97%	15.62%	19.30%	5.97%	25.27%	9.52%	5.97%	15.49%
56	9.65%	5.97%	15.62%	19.30%	5.97%	25.27%	9.52%	5.97%	15.49%
57	9.65%	5.97%	15.62%	19.30%	5.97%	25.27%	9.52%	5.97%	15.49%
58	9.65%	5.97%	15.62%	19.30%	5.97%	25.27%	9.52%	5.97%	15.49%
59	9.65%	5.97%	15.62%	19.30%	5.97%	25.27%	9.52%	5.97%	15.49%
60	9.65%	5.97%	15.62%	19.30%	5.97%	25.27%	9.52%	5.97%	15.49%

Members do not pay COLA contributions

Assumptions:
Interest: 7.00%
Salary: 2019 Valuation Scale (Service based, includes wage inflation at 3.00%)
Unisex: Public Safety 2010 – PUBS-2010 – Retiree Mortality Table, projected to 2044 using MP-2019
Mortality: (blended 80% Male / 20% Female)
Administrative expenses: Rates have been loaded by 3.1% to account for expected administrative expenses allocated to the members.

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 Market Value of Assets to the Actuarial Liability.

12. Normal Cost

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

13. Projected Benefits

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

14. Unfunded Actuarial Liability

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



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