

# **Santa Barbara County Employees' Retirement System**

## **Actuarial Valuation Report as of June 30, 2018**

**Produced by Cheiron**

**December 2018**

## TABLE OF CONTENTS

<i>Section</i>	<i>Page</i>
Letter of Transmittal .....	i
Foreword .....	ii
Section I Executive Summary .....	1
Section II Assets .....	14
Section III Liabilities .....	21
Section IV Contributions.....	25
Section V Comprehensive Annual Financial Reporting Information .....	36
 <i>Appendices</i>	
Appendix A Membership Information .....	38
Appendix B Member Contribution Rates.....	58
Appendix C Statement of Current Actuarial Assumptions and Methods .....	63
Appendix D Summary of Plan Provisions.....	73
Appendix E Glossary .....	86

December 6, 2018

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, 2018. This report contains information on the System's assets and liabilities, and discloses employer 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. Any other user of this report is not an intended user and is considered a third party.

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. It is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

To the best of our knowledge, this report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board. 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  
Consulting Actuary

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**FOREWORD**

Cheiron has performed the actuarial valuation of the Santa Barbara County Employees' Retirement System as of June 30, 2018. 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 - Assets
  - Section III - Liabilities
  - Section IV - Contributions
  - Section V - Comprehensive Annual Financial Reporting Information
- In the **Appendices**, we conclude our report with detailed information describing plan membership (Appendix A), tables containing member contribution rates (Appendix B), actuarial assumptions and methods employed in the valuation tables (Appendix C), a summary of pertinent plan provisions (Appendix D), and a glossary of key actuarial terms (Appendix E).

The results of this report rely on future plan experience conforming to the underlying assumptions. To the extent that actual plan experience deviates from the underlying assumptions, the results would vary accordingly.

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  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**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 2019-2020, and
- Information required by the GFOA for the Comprehensive Annual Financial Report.

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, 2019.

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 12 years), except for the additional UAL attributable to the creation of Safety Plan 6, which is being amortized over a separate closed period (currently 10 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 C.

Actuarial experience studies are performed every three years. This valuation was performed based on the economic and demographic assumptions and methods that were determined in the Actuarial Experience Study performed by Cheiron as of June 30, 2016, and adopted by the Board on October 26, 2016. A summary of the assumptions and methods used in the current valuation is shown in Appendix B.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION I – EXECUTIVE SUMMARY**

**B. Key Findings of this Valuation**

The key results of the June 30, 2018 actuarial valuation are as follows:

- The actuarially determined employer contribution rate increased from 39.14% of payroll to 40.02% of payroll for the current valuation. 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 and the effect of payroll on the unfunded actuarial liability (UAL) amortization payment rate, offset slightly by asset gains and new members hired under PEPRA.
- Through collective bargaining agreements, certain members will begin making employer pick-up contributions starting September 10, 2018 with scheduled increases through November 16, 2020. The cost-sharing contributions are expected to offset the net employer contribution rates by 0.77% for FYE 2019 and 1.55% for FYE 2020.
- The System's funded ratio, the ratio of assets over Actuarial Liability, increased from 75.7% last year to 77.2% as of June 30, 2018.
- 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 \$901.0 million to \$886.1 million, a decrease of \$14.9 million.
- During the plan year ending June 30, 2018, the return on Plan assets was 8.00% - net of investment expenses and assuming mid-year cash flows - as compared to the 7.00% assumption. This produced an actuarial asset gain of \$28.0 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, more disabilities than expected, and retirement experience. Consequently, the System experienced a net loss on the Actuarial Liability of \$25.4 million.
- Actual contributions made to the Plan were less than expected by \$2.0 million. This difference results from a timing difference due to the implementation of contribution rates on July 1 following the valuation date that they were calculated. In addition, the lower than anticipated payroll for FYE 2018 resulted in the actual contributions that were different from the expected contributions.

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.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION I – EXECUTIVE SUMMARY**

Table I-1			
Santa Barbara County Employees' Retirement System Summary of Key Valuation Results (in thousands)			
Valuation Date Fiscal Year End	June 30, 2017 2019	June 30, 2018 2020	Relative % Change
Actuarial Liability	\$ 3,702,296	\$ 3,888,127	5.0%
Market Value of Assets	<u>2,801,307</u>	<u>3,002,019</u>	7.2%
Unfunded Actuarial Liability (UAL)	\$ 900,989	\$ 886,109	-1.7%
			<b>Absolute % Change</b>
Funding Ratio	75.7%	77.2%	1.5%
Employer Contribution Rate	39.14%	40.02%	0.88%
Estimated Impact of Employee Cost-Sharing	<u>-0.77%</u>	<u>-1.55%</u>	-0.78%
Net Employer Contribution Rate (After cost-sharing)	38.37%	38.47%	0.10%
Estimated FY Payroll	\$ 362,400	\$ 363,600	\$ 1,200
Estimated FY Employer Contributions (After cost-sharing)	\$ 139,100	\$ 139,900	\$ 800

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 7.2%, the Unfunded Actuarial Liability (UAL) decreased by 1.7% as of June 30, 2018. The UAL decreased from \$901.0 million to \$886.1 million from last year to this year. Also, the funding ratio improved from 75.7% to 77.2%, an increase of 1.5%.

The employer contribution rate increased from 39.14% to 40.02% of payroll. With the estimated impact of employee cost sharing, the net employer contribution rate increased from 38.37% to 38.47%. Based on estimated fiscal year payroll of \$363.6 million, the estimated fiscal year 2019-20 employer contributions are \$139.9 million.

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.

As shown in Table I-2 below, membership in SBCERS increased by 1.4%. Active membership decreased by 3.0%, inactives increased by 8.8%, and members receiving benefits increased by 3.2%. Total payroll increased by 0.3% which is less than the assumed 3.0% increase. The average pay per active member increased by 3.4%.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION I – EXECUTIVE SUMMARY**

<b>Table I-2 Membership Total</b>			
	<b>June 30, 2017</b>	<b>June 30, 2018</b>	<b>% Change</b>
Actives	4,299	4,171	-3.0%
Terminated Members	1,461	1,589	8.8%
Members Receiving Benefits	<u>4,377</u>	<u>4,519</u>	<u>3.2%</u>
Total Members	10,137	10,279	1.4%
Ratio of All Inactives to Active Members	1.36	1.46	
Active Member Projected Payroll for FYE June 30, 2018 and 2019	\$ 351,828,507	\$ 353,016,061	0.3%
Average Pay per Active	\$ 81,840	\$ 84,636	3.4%

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



**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION I – EXECUTIVE SUMMARY**

<b>Table I-3 Change in Unfunded Actuarial Liability (in thousands)</b>	
Unfunded actuarial liability, 6/30/2017	\$ 900,989
Expected change in unfunded actuarial liability	\$ (15,750)
Unfunded decrease due to asset gain <sup>1</sup>	(24,530)
Unfunded increase due to liability loss	<u>25,400</u>
Total change in unfunded actuarial liability	\$ (14,880)
Unfunded actuarial liability, 6/30/2018	\$ 886,109

<sup>1</sup>Includes losses due to expenses being more than expected and contribution timing lag.

The Unfunded Actuarial Liability (UAL) for SBCERS decreased by \$14.9 million, from \$901.0 million to \$886.1 million. Table I-3 above presents the specific components of the change in the UAL.

The actuarial asset gain decreased the UAL by \$24.5 million. The liability experience increased the UAL by \$25.4 million.

The expected change in the UAL of \$15.8 million due to the UAL payment for FY 2017-18 combined with the above UAL changes produce an overall decrease of \$14.9 million in the UAL.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION I – EXECUTIVE SUMMARY**

**Employer Contributions Comparison**

Thus far, the experience of the 2017-18 plan year has been presented in terms of the UAL and funded ratio. Table I-4 below compares the employer contribution rates from the prior year and its components to the current year. The impact of the employee cost sharing is not included in the table. The overall employer contribution rate increased by 0.88% for the June 30, 2018 valuation, with a decrease of 0.45% in the employer normal cost and an increase of 1.33% in the amortization of the UAL.

<b>Table I-4 Contributions by Components (Prior to Cost-Sharing)</b>			
<b>Valuation Year</b>	<b>2017</b>	<b>2018</b>	
<b>Effective for Fiscal Year End</b>	<b>FYE 2019</b>	<b>FYE 2020</b>	<b>Change</b>
Gross Normal Cost %	22.82%	22.55%	-0.27%
Employee Contributions	<u>6.09%</u>	<u>6.27%</u>	0.18%
Employer Normal Cost %	16.73%	16.28%	-0.45%
Amortization of UAL%	22.41%	23.74%	1.33%
Employer Contribution Rate	39.14%	40.02%	0.88%

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION I – EXECUTIVE SUMMARY**

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

<b>Table I-5 Employer Contribution Rate Reconciliation (Prior to Cost Sharing)</b>				
	<b>Normal Cost</b>	<b>Amortization</b>	<b>Total</b>	<b>Dollars</b>
<b>FYE 2019 Employer Contribution Rate</b>	<b>16.73%</b>	<b>22.41%</b>	<b>39.14%</b>	<b>\$ 141.8</b>
Expected Change due to DRS amortization phase-in	0.00%	0.71%	0.71%	
Expected Change due to PEPRA new hires	<u>-0.35%</u>	<u>0.00%</u>	<u>-0.35%</u>	
<b>Expected FYE 2020 Employer Contribution Rate</b>	<b>16.38%</b>	<b>23.12%</b>	<b>39.50%</b>	<b>\$ 147.4</b>
Change due to effect of payroll on amortization	0.00%	0.59%	0.59%	
Change due to asset gain	0.00%	-0.13%	-0.13%	
Change due to demographic experience	<u>-0.10%</u>	<u>0.16%</u>	<u>0.06%</u>	
<b>FYE 2020 Employer Contribution Rate</b>	<b>16.28%</b>	<b>23.74%</b>	<b>40.02%</b>	<b>\$ 145.5</b>

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), 0.71% of payroll, is the largest driver of a net increase in the employer contribution rate. See Table IV-2 Development of Amortization Payment for details on each base. The other components of the contribution rate change are as follows:

- Payroll used to amortize unfunded liabilities was lower than expected by about \$9.4 million. As a result, unfunded actuarial liabilities are amortized over a smaller payroll base than expected, and the employer contribution rate, as a percentage of payroll, increased by 0.59%.
- Asset experience produced an investment gain that decreased the contribution rate by 0.13% of pay. The assets of the Plan returned 8.00% (net of investment expenses), greater than the assumed rate of 7.00%.
- PEPRA members are now about 29% of active member payroll. The average employee contribution rate continues to increase since most PEPRA members have higher employee contribution rates than the retiring legacy members they replace. PEPRA benefits are also lower than the legacy members' benefits. The impact of the increasing number of PEPRA members was a 0.35% of pay decrease on the employer contribution rate.
- Demographic experience was slightly unfavorable for a net increase in cost of about 0.06% of pay. The demographic experience of the Plan includes retirement, death, disability, and termination. The primary factors contributing to this increase were larger COLA increases than expected for current retirees, more disabilities than expected, and retirement experience. Given the current 2.75% inflation assumption, the assumed rate of

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION I – EXECUTIVE SUMMARY**

COLA growth is 2.6% for members with a 3.0% COLA cap and 1.9% for members with a 2% COLA cap. Simulations of inflation show us that the average growth in the COLA is expected to be below the cap, even if the expected increase in the CPI is equal to or higher than the cap itself. The actual COLA increase for FY17-18 was 3.0% and 2.0%, for the 3.0% and 2.0% capped groups, respectively, thus resulting in a loss on the liabilities.

**Plan Risk**

Table I-6 below shows the ratio of assets to active member payroll for SBCERS.

<b>Table I-6</b>	
<b>Asset to Payroll Ratio as of June 30, 2018</b>	
Active Member Payroll	\$353,016,061
Market Value of Assets	\$3,002,018,510
Ratio of Assets to Payroll	8.5
Ratio with 100% Funding	11.0

One of the most important measures of a plan's risk is the ratio of plan assets to payroll. The table above shows SBCERS's assets as a multiple of active member payroll. This ratio indicates the sensitivity of the plan to the returns earned on plan assets. We note in the table that assets currently are nearly nine times covered payroll for the Plan: as funding improves and the Plan reaches 100% funding, the ratio of asset to payroll will increase to over 11 times payroll, perhaps higher depending on the Plan's future demographic makeup.

To appreciate the impact of the ratio of assets to payroll on 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 cost is nil, because the assets are so small. On the other hand, consider the situation if the System's assets lose 10% of their value in a year. Since they are assumed to earn 7%, there is an actuarial loss of 17% of assets. Based on the current ratio of assets to payroll, the loss in assets is about 145% of active payroll (8.5 times the 17% loss). There is only one source of funding to make up for this loss: employer contributions. Consequently, barring future offsetting investment gains, the loss must be made up with future employer contributions.

As the plan matures and becomes better funded, the ratio of assets to payroll will increase. If assets are 1100% of pay (as expected once the plan is fully funded), the 10% loss discussed above will translate to a loss of over 187% of payroll. Therefore, the Plan is likely to become more sensitive to market variation in the future than it is today.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION I – EXECUTIVE SUMMARY**

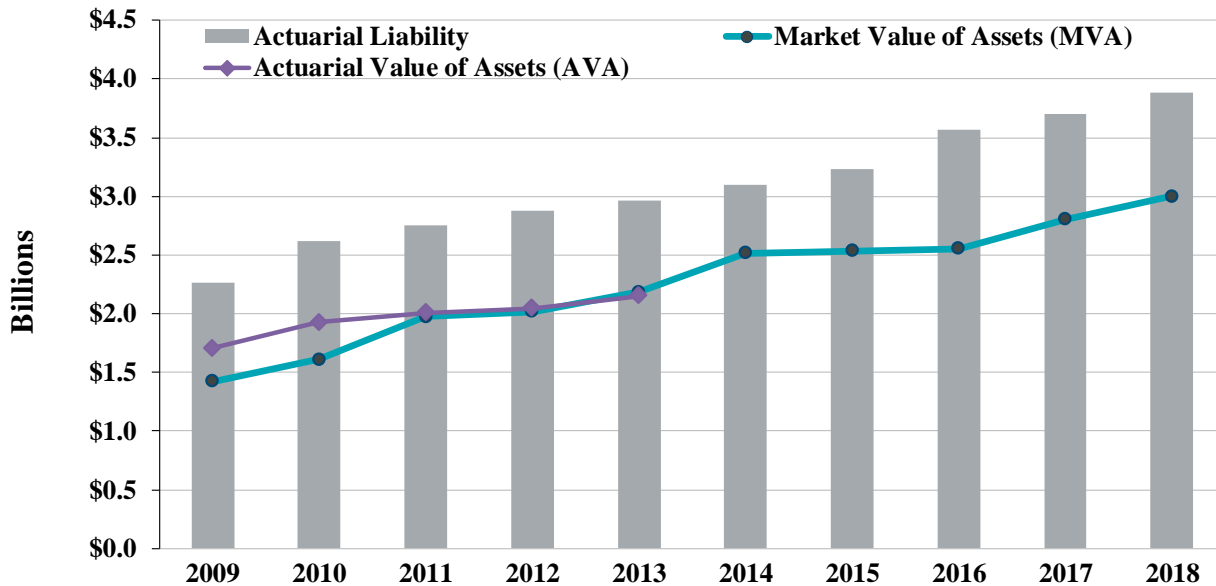
**C. Historical Trends**

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 75.3% in 2009 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 increase in the funded ratio in 2017 and 2018 to 75.7% and 77.2%, respectively, is primarily due to asset gains for Fiscal Years Ending 2017 and 2018.

**Funded Ratio**



<b>Funded Ratio</b>	<b>75.3%</b>	<b>73.7%</b>	<b>73.0%</b>	<b>71.2%</b>	<b>72.4%</b>	<b>81.1%</b>	<b>78.4%</b>	<b>71.5%</b>	<b>75.7%</b>	<b>77.2%</b>
<b>UAL (Billions)</b>	<b>\$ 0.56</b>	<b>\$ 0.69</b>	<b>\$ 0.74</b>	<b>\$ 0.83</b>	<b>\$ 0.82</b>	<b>\$ 0.58</b>	<b>\$ 0.70</b>	<b>\$ 1.02</b>	<b>\$ 0.90</b>	<b>\$ 0.89</b>

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

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018

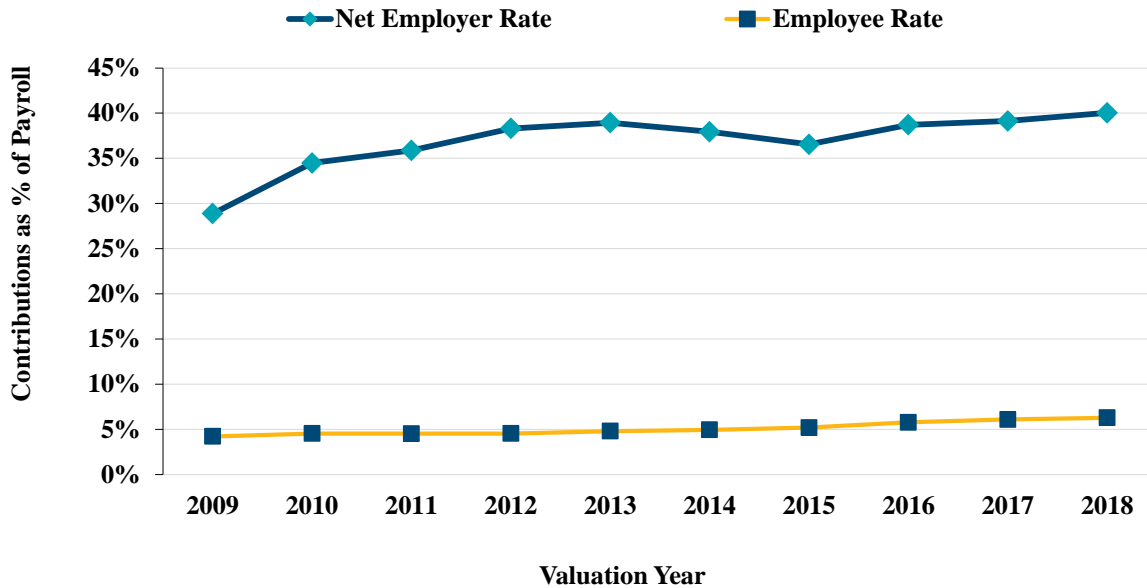
SECTION I – EXECUTIVE SUMMARY

**Contribution Trends**

In the chart below, we present the historical trends for the SBCERS contribution rates. The employer contribution rates rose gradually from 2009 to 2013. However, for 2014, the employer rate decreased due to favorable asset experience and an asset method change in 2013-2014 to Market Value of Assets. The impact of the 2014 gains continued to decrease the employer contribution rate in 2015 since amortization of the decrease in the UAL was in its second year of the ramp up period under the direct rate smoothing amortization method. However, assumption changes implemented after the most recent experience study increased the employer contribution rate in 2016. The employer contribution rate has slightly increased the last two years mostly due to the continued phase-in of the assumption change amortization bases under the direct rate smoothing method.

The average employee contribution rates have stayed relatively stable, increasing slightly as the Plan's economic assumptions have changed. Also, average employee contribution rates will continue to increase as more new members under PEPRA are hired.

**Historical Contribution Rates**



**Gains and Losses**

The chart on the next page presents the pattern of annual gains and losses, broken into the investment and liability components. The investment gains and losses prior to 2015 represent the changes on a smoothed basis (i.e., based on the actuarial value of assets). Starting with the June 30, 2015 valuation, the investment experience is based on the Market Value of Assets due to the new asset valuation method implemented in the June 30, 2014 valuation. The chart does not include any changes in SBCERS' assets and liabilities attributable to changes to actuarial methods, assumptions or plan benefit changes.

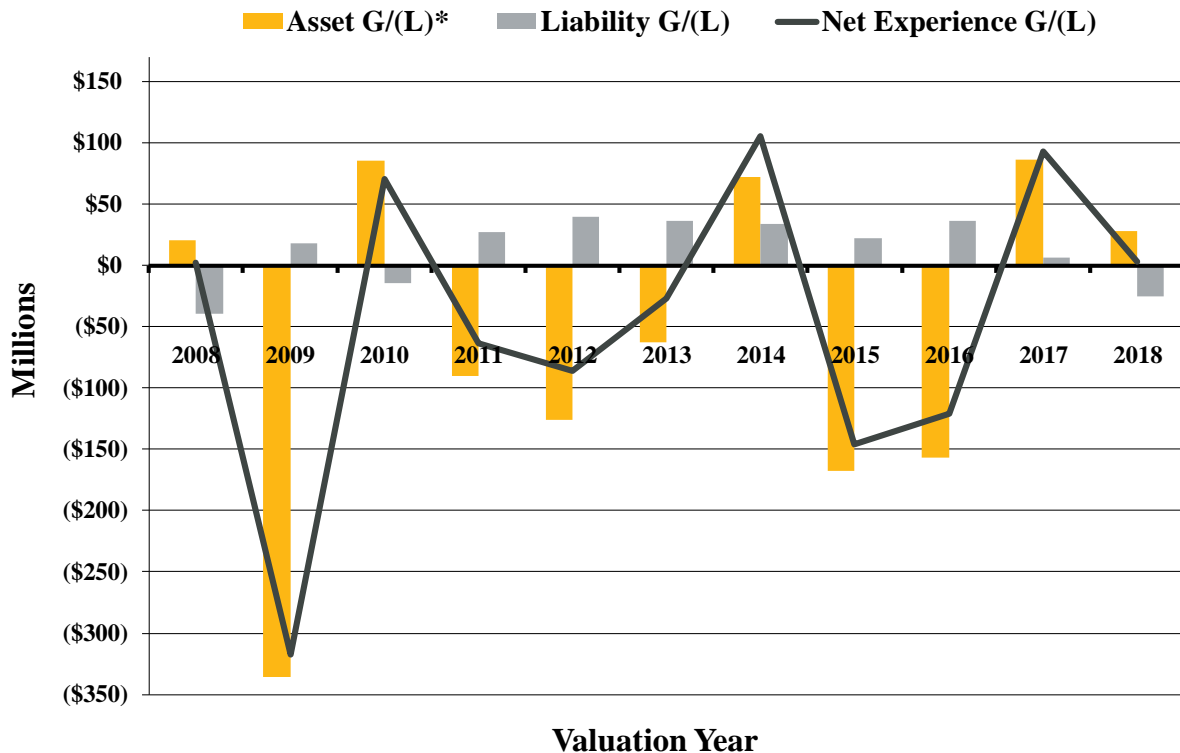
**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION I – EXECUTIVE SUMMARY**

The investment loss in 2008-2009 was by far the most significant gain or loss during the last 10 years. Even though the Plan was using actuarial smoothing of the assets, there was a significant loss reflected in the June 30, 2009 valuation, because the amount of smoothing was limited by the 80/120% corridor around the Market Value of Assets (the return on the smoothed value of assets for 2008-2009 was -9.6%). This loss was fully recognized in the June 30, 2013 valuation.

Over the seven years prior to the year ended June 30, 2018, there had been a period of liability gains primarily due to retiree COLAs and continuing active pay increases being less than anticipated. For the June 30, 2018, however, the liability losses are mostly a result of retiree COLAs being slightly greater than expected. The net actuarial loss is quite small since the liability losses are almost fully offset by the asset gains.

**Experience Gains and Losses**



\* Prior to 2015, based on actuarial value of assets which recognizes market gains/losses over a five-year period. In 2015 and thereafter, based on actual market gains/losses with no smoothing.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

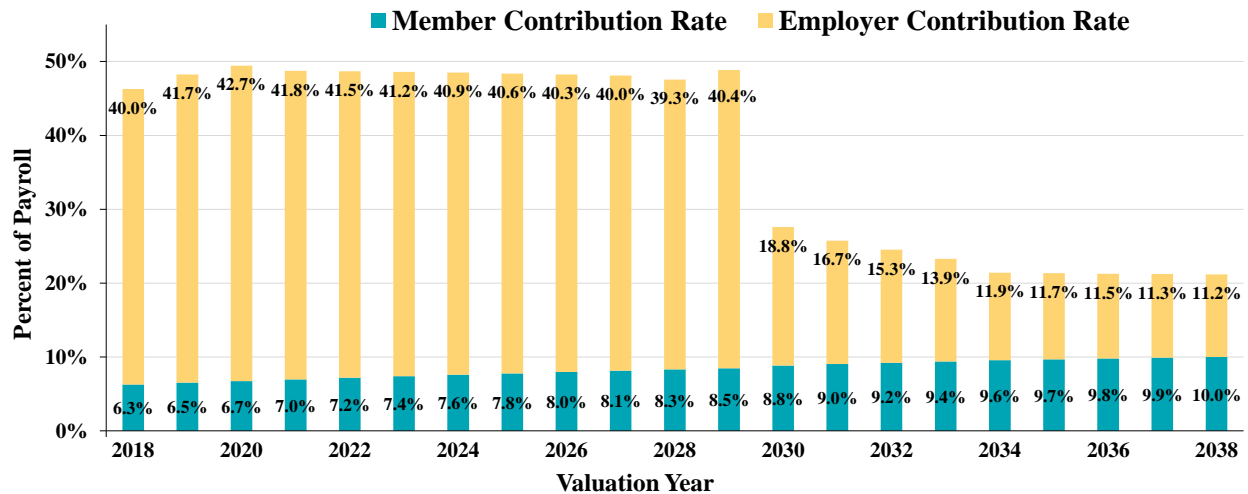
**SECTION I – EXECUTIVE SUMMARY**

**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 – excluding the impact of any 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 time period, the returns in each given year will certainly vary.



The employer contribution rate is approximately 40% of member payroll for the June 30, 2018 valuation; it is expected to increase gradually to about 43% in two years, as the assumptions changes from the 2016 valuation are phased-in. The employer rate slightly decreases in 2021 and 2022 to 41.5% as the assets gains from the 2016-2017 plan year are phased-in and then remain around that level for the next seven 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.

Member contribution rates are anticipated to increase over the projection period as more members are hired under PEPRA. PEPRA members' contribution rates for each group (General, Safety, and APCD) are higher than the legacy member rates for those groups.

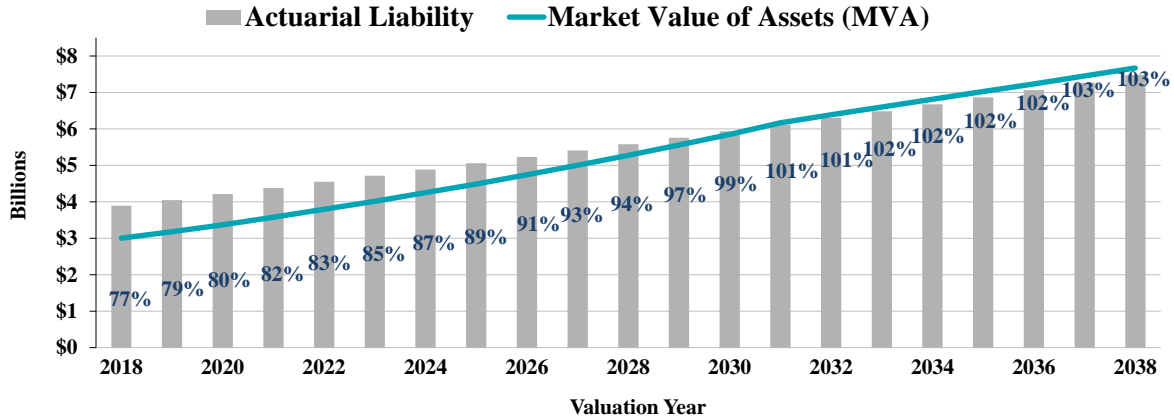


**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION I – EXECUTIVE SUMMARY**

**Asset and Liability Projections:**

In this section, we present our assessment of the implications of the June 30, 2018 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, based on the Market Value of Assets, increases over the next 15 years and reaches 101% in 2031 assuming the actuarial assumptions are achieved.

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  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION II – 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 impact 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, 2017 and June 30, 2018,
- 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 II-1 on the next page discloses and compares the asset values as of June 30, 2017 and June 30, 2018. The June 30, 2017 Statement of Assets has been revised to match financials reported in the SBCERS' June 30, 2017 Comprehensive Annual Financial Report.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION II – ASSETS**

<b>Table II-1</b>		
<b>Statement of Assets at Market Value</b>		
<b>Assets:</b>	<b>June 30, 2017</b>	<b>June 30, 2018</b>
Cash and Cash Equivalents	\$ 1,698,988	\$ 3,828,778
Prepaid Expenses	3,082,455	2,995,776
<b>Receivables:</b>		
Contributions Receivable	4,556,940	5,279,122
Other	(835)	0
Accrued Interest	2,541,030	3,206,555
Dividends	1,471,534	2,251,237
Security Sales	<u>31,026,530</u>	<u>12,395,035</u>
Total Receivables	39,595,199	23,131,950
<b>Investments, at Market Value:</b>		
Short Term Investments	44,785,833	44,584,160
Alternative/Private Equity	226,890,992	268,296,316
Domestic Equity	612,634,582	630,865,819
Domestic Bonds	518,339,854	446,462,811
International Equity	581,362,631	318,202,110
Emerging Market Equity	0	242,425,237
International Bonds/Non-Core Fixed Income	300,958,821	254,745,917
Real Estate	246,496,889	269,367,748
Real Assets/Real Return	<u>270,571,453</u>	<u>510,621,314</u>
Total Investments	2,802,041,053	2,985,571,432
<b>Other Assets:</b>		
Collateral Held for Securities Lent	<u>70,460,427</u>	<u>23,453,631</u>
<b>Total Assets</b>	2,916,878,122	3,038,981,567
<b>Liabilities:</b>		
Accounts Payable	480,879	328,091
Benefits Payable	148,488	89,352
Collateral Held for Securities Lent	70,460,427	23,453,631
Investment Manager Fees	1,435,443	41
Security Purchases	<u>43,455,001</u>	<u>13,091,941</u>
<b>Total Liabilities</b>	115,980,238	36,963,057
<b>Market Value of Assets</b>	<b>\$ 2,800,897,884</b>	<b>\$ 3,002,018,510</b>

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION II – 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 II-2 below shows the components of change in the Market Value of Assets during the fiscal years ending June 30, 2017 and June 30, 2018.

<b>Table II-2 Changes in Market Values</b>		
<b><u>Additions</u></b>	<b>Fiscal Year ending <u>June 30, 2017</u></b>	<b>Fiscal Year ending <u>June 30, 2018</u></b>
<b>Contributions</b>		
Employer's Contribution	\$ 121,990,986	\$ 131,374,191
Members' Contributions	20,319,910	22,533,426
Total Contributions	<u>142,310,896</u>	<u>153,907,617</u>
<b>Net Investment Income</b>		
Net Appreciation/(Depreciation) in		
Fair Value of Investments	244,511,939	191,922,198
Interest	10,419,763	16,660,474
Dividends	17,023,915	21,815,808
Investment Expense	(8,134,254)	(7,721,068)
Net Investment Income	<u>263,821,363</u>	<u>222,677,412</u>
<b>Securities Lending Income</b>		
Securities Lent Income	319,123	532,844
Securities Lent Expense	14,497	(127,572)
Net Securities Lending Income	<u>333,620</u>	<u>405,272</u>
<b>Miscellaneous Income</b>		
Net Miscellaneous Income	264,814	231,849
Total Additions	\$ 406,730,693	\$ 377,222,150

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION II – ASSETS**

**Table II-2  
Changes in Market Values (Continued)**

	<b>Fiscal Year ending <u>June 30, 2017</u></b>	<b>Fiscal Year ending <u>June 30, 2018</u></b>
<b><u>Deductions</u></b>		
Benefit payments	\$ 153,185,146	\$ 168,377,159
Refunds of Members' Contributions	<u>1,044,286</u>	<u>1,373,695</u>
Total Benefit Payments	154,229,432	169,750,854
Administrative & Other Expenses		
General Administrative Expenses	5,030,530	5,681,755
Actuary Fees	278,944	156,152
Fund Legal Fees	<u>423,514</u>	<u>512,763</u>
Total Administrative & Other Expenses	5,732,988	6,350,670
Total Deductions	159,962,421	176,101,524
Net increase (Decrease)	246,768,272	201,120,626
Net Assets Held in Trust for Pension Benefits		
Beginning of Year	2,554,538,523	2,800,897,884
End of Year	\$ 2,801,306,795	\$ 3,002,018,510
Adjustment for Final Assets	<u>(408,911)</u>	
Final End of Year	\$ 2,800,897,884	
Expected Return	\$ 178,210,342	\$ 195,299,203
Actual Return	\$ 264,419,797	\$ 223,314,534
Expected Return	7.00%	7.00%
Approximate Return	10.39%	8.00%

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION II – 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 II-3, as long as that account is negative.

The final asset value for June 30, 2017 shown in the Comprehensive Annual Financial Report (CAFR) was \$2,800,897,884. The asset values in the June 30, 2017 actuarial valuation report were slightly higher at \$2,801,306,795. The middle column of Table II-3 shows the reconciliation between the two asset values.

<b>Table II-3</b>			
<b>Allocation of Assets by Accounting Reserve Amounts for the Years Ended June 30, 2017 and June 30, 2018</b>			
	<b>FYE 2017</b>	<b>Revised FYE 2017</b>	<b>FYE 2018</b>
Member Deposit Reserve	\$ 187,083,781	\$ 193,486,531	\$ 203,167,989
County and District Advance Reserve	1,034,050,045	1,089,147,048	1,160,419,055
Retired Member Reserve	<u>2,360,666,294</u>	<u>2,298,207,148</u>	<u>2,446,878,657</u>
	<b>\$ 3,581,800,119</b>	<b>\$ 3,580,840,727</b>	<b>\$ 3,810,465,701</b>
New Market Stabilization Reserve	0	0	0
Contra Tracking Account	(780,493,324)	(779,533,932)	(808,447,191)
Adjustment for Final Assets		(408,911)	0
<b>Total Reserves</b>	<b>\$ 2,801,306,795</b>	<b>\$ 2,800,897,884</b>	<b>\$ 3,002,018,510</b>

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION II – 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.

<b>Table II-4 Net Return on Assets vs. Increase in Consumer Price Index</b>		
<b>Year Ended June 30</b>	<b>Net Return at Market Value</b>	<b>Increase in Consumer Price Index<sup>1</sup></b>
1994	-0.7%	2.5%
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%
<b>25-Year Geometric Average</b>	<b>7.1%</b>	<b>2.3%</b>

<sup>1</sup> Based on All Urban Consumers - U.S. City Average, June indices.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION II – 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.

<b>Table II-5</b>					
<b>Allocation of Assets by Subgroup for June 30, 2018</b>					
<b>(in thousands)</b>					
	<b>General</b>	<b>Safety</b>	<b>APCD</b>	<b>Total</b>	
1. Member Deposit Reserve	\$ 158,836	\$ 43,676	\$ 657	\$	203,168
2. County and District Advance Reserve	751,982.48	398,000.40	10,436.17		1,160,419
3. Retired Member Reserve	1,360,039	1,048,481	38,359		2,446,879
4. Total Valuation Reserves (1 + 2 + 3)	\$ 2,270,857	\$ 1,490,157	\$ 49,452	\$	3,810,466
5. Percentage of Line 4, by Plan	59.6%	39.1%	1.3%		100.0%
6. Market Value of Assets					3,002,019
7. Allocated Market Value of Assets	\$ 1,789,061	\$ 1,173,998	\$ 38,960	\$	3,002,019



SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018

**SECTION III – LIABILITIES**

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

- **Disclosure** of System liabilities at June 30, 2017 and June 30, 2018,
- 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 III-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  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION III – LIABILITIES**

<b>Table III-1</b>						
<b>Present Value of Future Benefits and Actuarial Liability</b>						
<b>(in thousands)</b>						
	<b>General</b>	<b>Safety</b>	<b>APCD</b>	<b>June 30, 2018</b>	<b>June 30, 2017</b>	
				<b>Total</b>	<b>Total</b>	
<b>Present Value of Future Benefits</b>						
Actives	\$ 1,286,462	\$ 744,879	\$ 16,589	\$ 2,047,930	\$ 2,035,170	
Terminated Vested	118,264	35,211	3,861	157,336	141,535	
Retirees	1,189,011	798,965	30,365	2,018,340	1,890,094	
Disabled	46,742	101,691	0	148,433	134,304	
Beneficiaries	72,881	65,017	1,986	139,884	129,992	
<b>Total SBCERS</b>	<b>\$ 2,713,360</b>	<b>\$ 1,745,763</b>	<b>\$ 52,801</b>	<b>\$ 4,511,924</b>	<b>\$ 4,331,095</b>	
<b>Actuarial Liability</b>						
Total Present Value of Benefits	\$ 2,713,360	\$ 1,745,763	\$ 52,801	\$ 4,511,924	\$ 4,331,095	
Present Value of Future Normal Costs						
Employer Portion	250,115	179,743	2,433	432,291	444,429	
Employee Portion	116,736	73,136	1,635	191,507	184,370	
<b>Actuarial Liability</b>	<b>\$ 2,346,509</b>	<b>\$ 1,492,884</b>	<b>\$ 48,733</b>	<b>\$ 3,888,126</b>	<b>\$ 3,702,297</b>	
Market Value of Assets	\$ 1,789,061	\$ 1,173,998	\$ 38,960	\$ 3,002,019	\$ 2,801,307	
Funded Ratio	76.2%	78.6%	79.9%	77.2%	75.7%	
<b>Unfunded Actuarial Liability/(Surplus)</b>	<b>\$ 557,448</b>	<b>\$ 318,886</b>	<b>\$ 9,773</b>	<b>\$ 886,107</b>	<b>\$ 900,990</b>	

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION III – 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, 2018**

**SECTION III – LIABILITIES**

<b>Table III-2 Development of 2018 Experience Gain/(Loss) (in thousands)</b>	
	<b>Cost</b>
1. Unfunded Actuarial Liability (UAL) at June 30, 2017	\$ 900,989
2. Middle of year actuarial liability payment	(76,198)
3. Interest to end of year on 1 and 2	<u>60,448</u>
4. Expected UAL at June 30, 2018 (1+2+3)	\$ 885,239
5. Actual Unfunded Liability at June 30, 2018	<u>886,109</u>
6. Net Gain/(Loss): (4 - 5)	\$ (870)
7. Portion of net gain/(loss) due to:	
a. Investment experience gain	\$ 28,015
b. Inactive mortality gain	160
c. Salary increases more than expected	(883)
d. Retiree COLAs more than expected	(7,572)
e. Retirement, termination and disability experience loss	(7,280)
f. Inactive and terminated vested member loss	(3,599)
g. New entrant loss	(1,657)
h. Contribution timing lag	(1,961)
i. Administrative expenses more than expected	(1,087)
j. Other experience	<u>(5,006)</u>
k. Total gain/(loss)	\$ (870)

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION IV – CONTRIBUTIONS**

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

For this System, the actuarial funding method used to determine the normal cost and the Unfunded Actuarial Liability is the **Entry Age Normal (EAN)** cost method. There are three primary components to the total contribution: the **normal cost rate** (employee and employer), the **Unfunded Actuarial Liability rate** (UAL rate), and **assumed administrative expenses**. Administrative expenses are split between employees and employers based on their share of the overall contributions 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 10 remaining years and the outstanding Unfunded Actuarial Liability as of June 30, 2013 over a closed period with 12 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.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION IV – CONTRIBUTIONS**

Table IV-1 Development of the Net Employer Contribution Rate as of June 30, 2018 for FYE 2020					
	June 30, 2018				June 30, 2017
	General	Safety	APCD	COMPOSITE	COMPOSITE
1. Total Normal Cost Rate	19.08%	31.81%	20.19%	<b>22.55%</b>	<b>22.82%</b>
2. Member Contribution Rate	<u>5.64%</u>	<u>7.92%</u>	<u>7.06%</u>	<u>6.27%</u>	<u>6.09%</u>
3. Employer Normal Cost Rate (1-2)	13.44%	23.89%	13.13%	<b>16.28%</b>	<b>16.73%</b>
4. UAL Amortization	<u>20.71%</u>	<u>31.46%</u>	<u>35.50%</u>	<u>23.74%</u>	<u>22.41%</u>
<b>5. Employer Contribution Rate (3+4)</b>	<b>34.15%</b>	<b>55.35%</b>	<b>48.63%</b>	<b>40.02%</b>	<b>39.14%</b>
6. Estimated Impact of Employee Cost-Sharing	<u>-1.21%</u>	<u>-2.47%</u>	<u>-0.56%</u>	<u>-1.55%</u>	<u>-0.77%</u>
7. Net Employer Contribution Rate (5+6)	32.94%	52.88%	48.07%	38.47%	<b>38.37%</b>
Projected Payroll for FYE 2019	\$ 254,519,846	\$ 95,795,910	\$ 2,700,305	<b>\$ 353,016,061</b>	<b>\$ 351,828,507</b>

*Beginning with the June 30, 2013 valuation, the Member and Employer Contribution Rates have been explicitly loaded to account for anticipated administrative expenses. The load is 3.4% for the June 30, 2018 actuarial valuation, and has been applied to both the Employee and Employer Rates.*

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION IV – CONTRIBUTIONS**

The table below presents the calculation of the UAL payments of the System as a dollar amount and as a percentage of pay under the amortization policy. The total UAL payment of the System is 23.74% as a percentage of pay, which is not the sum of the individual amortization bases, since the Safety Plan 6 UAL of 4.84% 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 26.61% of pay.

If the UAL payment below of \$80,985,212 is calculated based on a single-equivalent period with the June 30, 2018 UAL of \$886,108,900, the number of years to fully pay off the unfunded would be 14 years.

**Table IV-2  
Development of Amortization Payment  
For the June 30, 2018 Actuarial Valuation**

Type of Base	Date Established	Initial Amount	Initial Amortization Years	June 30, 2018 Outstanding Balance	Remaining Amortization Years	Current Phase-In/Out Percentage	Amortization Amount	% of Pay <sup>2</sup>	% of Pay After Phase-In <sup>2</sup>
1. Safety Plan 6 Base <sup>1</sup>	6/30/2011	\$ 12,800,000	17	\$ 12,161,998	10	N/A	\$ 1,484,427	4.84%	4.84%
2. Remaining UAL	6/30/2013	803,940,900	17	728,724,449	12	N/A	76,794,538	22.51%	22.51%
3. (Gain)/Loss Base	6/30/2014	(227,291,825)	19	(249,131,406)	15	100%	(24,719,374)	-7.25%	-7.25%
4. (Gain)/Loss Base	6/30/2015	137,382,857	19	151,236,671	16	80%	11,550,279	3.39%	4.23%
5. (Gain)/Loss Base	6/30/2016	117,812,662	19	127,581,081	17	60%	7,178,590	2.10%	3.51%
6. Assumption Changes	6/30/2016	215,838,077	19	233,734,259	17	60%	13,151,498	3.86%	6.43%
7. (Gain)/Loss Base	6/30/2017	(83,693,202)	19	(87,894,302)	18	40%	(3,300,721)	-0.97%	-2.42%
8. Assumption Change	6/30/2017	(29,683,810)	19	(31,173,831)	18	40%	(1,170,680)	-0.34%	-0.86%
9. (Gain)/Loss Base	6/30/2018	869,981	19	869,981	19	20%	16,656	0.00%	0.02%
<b>Total</b>				\$ 886,108,900			\$ 80,985,212	23.74%	26.61%

<sup>1</sup> 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.

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

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION IV – CONTRIBUTIONS**

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.

<b>Table IV-2(a) General</b>								
<b>Development of Amortization Payment</b>								
<b>For the June 30, 2018 Actuarial Valuation</b>								
	Date	Initial Amortization Years	June 30, 2018 Outstanding Balance	Remaining Amortization Years	Current Phase-In/Out Percentage	Amortization Amount	% of Pay <sup>1</sup>	% of Pay After Phase-In <sup>1</sup>
1. Remaining UAL	6/30/2013	17	454,229,727	12	N/A	47,867,698	19.46%	19.46%
2. (Gain)/Loss Base	6/30/2014	19	(144,758,672)	15	100%	(14,363,278)	-5.84%	-5.84%
3. (Gain)/Loss Base	6/30/2015	19	95,740,558	16	80%	7,311,918	2.97%	3.72%
4. (Gain)/Loss Base	6/30/2016	19	80,239,994	17	60%	4,514,854	1.84%	3.06%
5. Assumption Changes	6/30/2016	19	150,890,493	17	60%	8,490,138	3.45%	5.75%
6. (Gain)/Loss Base	6/30/2017	19	(54,821,307)	18	40%	(2,058,721)	-0.84%	-2.09%
7. Assumption Change	6/30/2017	19	(19,552,012)	18	40%	(734,243)	-0.30%	-0.75%
8. (Gain)/Loss Base	6/30/2018	19	<u>(4,519,951)</u>	19	20%	<u>(86,534)</u>	-0.04%	-0.18%
<b>Total</b>			<b>\$557,448,830</b>			<b>\$50,941,833</b>	<b>20.71%</b>	<b>23.14%</b>

<sup>1</sup>Includes explicit administrative expense load.



**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION IV – CONTRIBUTIONS**

**Table IV-2(b) Safety  
Development of Amortization Payment  
For the June 30, 2018 Actuarial Valuation**

<b>Type of Base</b>	<b>Date Established</b>	<b>Initial Amortization Years</b>	<b>June 30, 2018 Outstanding Balance</b>	<b>Remaining Amortization Years</b>	<b>Current Phase-In/Out Percentage</b>	<b>Amortization Amount</b>	<b>% of Pay<sup>2</sup></b>	<b>% of Pay After Phase-In<sup>2</sup></b>
1. Safety Plan 6 Base <sup>1</sup>	6/30/2011	17	\$ 12,161,998	10	N/A	\$ 1,484,427	4.84%	4.84%
2. Remaining UAL	6/30/2013	17	265,542,759	12	N/A	27,983,463	30.23%	30.23%
3. (Gain)/Loss Base	6/30/2014	19	(101,550,752)	15	100%	(10,076,092)	-10.89%	-10.89%
4. (Gain)/Loss Base	6/30/2015	19	53,303,647	16	80%	4,070,918	4.40%	5.50%
5. (Gain)/Loss Base	6/30/2016	19	47,160,795	17	60%	2,653,591	2.87%	4.78%
6. Assumption Changes	6/30/2016	19	80,046,352	17	60%	4,503,959	4.87%	8.11%
7. (Gain)/Loss Base	6/30/2017	19	(31,109,025)	18	40%	(1,168,247)	-1.26%	-3.16%
8. Assumption Change	6/30/2017	19	(11,247,308)	18	40%	(422,374)	-0.46%	-1.14%
9. (Gain)/Loss Base	6/30/2018	19	<u>4,577,956</u>	19	20%	<u>87,644</u>	0.09%	0.47%
<b>Total</b>			<b>\$318,886,423</b>			<b>\$ 29,117,289</b>	<b>31.46%</b>	<b>35.52%</b>

<sup>1</sup>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

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

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION IV – CONTRIBUTIONS**

**Table IV-2(c) APCD  
Development of Amortization Payment  
For the June 30, 2018 Actuarial Valuation**

<b>Type of Base</b>	<b>Date Established</b>	<b>Initial Amortization Years</b>	<b>June 30, 2018 Outstanding Balance</b>	<b>Remaining Amortization Years</b>	<b>Current Phase-In/Out Percentage</b>	<b>Amortization Amount</b>	<b>% of Pay<sup>1</sup></b>	<b>% of Pay After Phase-In<sup>1</sup></b>
1. Remaining UAL	6/30/2013	17	8,951,963	12	N/A	943,377	36.16%	36.16%
2. (Gain)/Loss Base	6/30/2014	19	(2,821,982)	15	100%	(280,003)	-10.73%	-10.73%
3. (Gain)/Loss Base	6/30/2015	19	2,192,466	16	80%	167,444	6.42%	8.02%
4. (Gain)/Loss Base	6/30/2016	19	180,292	17	60%	10,144	0.39%	0.65%
5. Assumption Changes	6/30/2016	19	2,797,414	17	60%	157,402	6.03%	10.05%
6. (Gain)/Loss Base	6/30/2017	19	(1,963,971)	18	40%	(73,754)	-2.83%	-7.07%
7. Assumption Change	6/30/2017	19	(374,512)	18	40%	(14,064)	-0.54%	-1.35%
8. (Gain)/Loss Base	6/30/2018	19	<u>811,976</u>	19	20%	<u>15,545</u>	0.60%	2.98%
<b>Total</b>			<b>\$ 9,773,647</b>			<b>\$ 926,091</b>	<b>35.50%</b>	<b>38.72%</b>

<sup>1</sup> Includes explicit administrative expense load.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION IV – CONTRIBUTIONS**

As discussed earlier, a portion of the UAL attributable to the implementation of Safety Plan 6 is being amortized over a separate period from the rest of UAL. Beginning with the 2011 actuarial valuation, the outstanding balance of the Safety Plan 6 UAL is being amortized over a closed 17-year period; 10 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 IV-3 below contains the details of the calculations of the Safety UAL rates for the Plan 6 members.

<b>Table IV-3</b>	
<b>Development of Safety UAL Amortization Rates</b>	
June 30, 2018 Plan 6 Layer	\$ 12,161,998
10-year amortization factor	0.122055
Safety Plan 6 payroll	\$ 31,727,793
Middle of year payment	1,484,427
Extra Plan 6 UAL Amortization Rate	4.68%
- including Administrative Expense Load	4.84%
Safety UAL less Extra Plan 6	\$ 306,724,424
Middle of year payment	27,632,862
Total Safety Payroll	95,795,910
UAL Rate without Extra Plan 6	28.85%
- including Administrative Expense Load	29.85%
UAL Rate - Plan 6 including Admin Expense Load	34.69%

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION IV – CONTRIBUTIONS**

Tables IV-4 through IV-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 IV-4 Development of the General Net Employer Contribution Rate as of June 30, 2018 for FYE 2020									
							PEPRA		
	5A	5B	5C	Plan 2	Plan 7	2% COLA	3% COLA	Total	
<b>Current Year</b>									
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%	
<b>G. Total June 30, 2018 Contribution Rate (C+F)</b>	<b>35.41%</b>	<b>35.56%</b>	<b>37.15%</b>	<b>24.11%</b>	<b>36.02%</b>	<b>29.03%</b>	<b>30.02%</b>	<b>34.15%</b>	
Projected Payroll for FYE 2018 (in thousands)	\$ 37,848	\$ 36,065	\$ 92,066	\$ 436	\$ 10,017	\$ 73,865	\$ 4,222	\$ 254,520	
<b>Prior Year</b>									
A. Basic Employer Normal Cost Rate	10.42%	9.96%	11.76%	3.76%	11.93%	6.94%	7.68%	9.99%	
B. COLA Normal Cost Rate	<u>4.39%</u>	<u>5.34%</u>	<u>4.81%</u>	<u>0.00%</u>	<u>3.22%</u>	<u>1.38%</u>	<u>2.13%</u>	<u>3.85%</u>	
C. Employer Normal Cost Rate	14.81%	15.30%	16.57%	3.76%	15.15%	8.32%	9.81%	13.84%	
D. Basic UAL Contribution Rate	13.83%	13.83%	13.83%	13.83%	13.83%	13.83%	13.83%	13.83%	
E. COLA UAL Contribution Rate	<u>5.66%</u>	<u>5.66%</u>	<u>5.66%</u>	<u>5.66%</u>	<u>5.66%</u>	<u>5.66%</u>	<u>5.66%</u>	<u>5.66%</u>	
F. UAL Contribution Rate	19.49%	19.49%	19.49%	19.49%	19.49%	19.49%	19.49%	19.49%	
<b>G. Total June 30, 2017 Contribution Rate (C+F)</b>	<b>34.30%</b>	<b>34.79%</b>	<b>36.06%</b>	<b>23.25%</b>	<b>34.64%</b>	<b>27.81%</b>	<b>29.30%</b>	<b>33.33%</b>	
Projected Payroll for FYE 2017 (in thousands)	\$ 40,337	\$ 38,079	\$ 95,832	\$ 645	\$ 9,117	\$ 66,293	\$ 2,910	\$ 253,212	

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION IV – CONTRIBUTIONS**

<b>Table IV-5</b>							
<b>Development of the Safety Net Employer Contribution Rate as of June 30, 2018 for FYE 2020</b>							
	<b>4A</b>	<b>4B</b>	<b>4C</b>	<b>6A</b>	<b>6B</b>	<b>PEPRA</b>	<b>Total</b>
<b>Current Year</b>							
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%
<b>G. Total June 30, 2018 Contribution Rate (C+F)</b>	<b>56.09%</b>	<b>55.01%</b>	<b>55.22%</b>	<b>64.50%</b>	<b>63.98%</b>	<b>44.19%</b>	<b>55.35%</b>
Projected Payroll for FYE 2018 (in thousands)	\$ 5,585	\$ 1,719	\$ 32,171	\$ 4,986	\$ 26,742	\$ 24,593	\$ 95,796
<b>Prior Year</b>							
A. Basic Employer Normal Cost Rate	18.45%	16.08%	17.16%	21.00%	19.71%	10.65%	16.83%
B. COLA Normal Cost Rate	<u>8.18%</u>	<u>9.64%</u>	<u>8.20%</u>	<u>9.10%</u>	<u>9.57%</u>	<u>3.73%</u>	<u>7.74%</u>
C. Employer Normal Cost Rate	26.63%	25.72%	25.36%	30.10%	29.28%	14.38%	24.57%
D. Basic UAL Contribution Rate	18.81%	18.81%	18.81%	21.64%	21.64%	18.81%	19.84%
E. COLA UAL Contribution Rate	<u>9.51%</u>	<u>9.51%</u>	<u>9.51%</u>	<u>10.95%</u>	<u>10.95%</u>	<u>9.51%</u>	<u>10.04%</u>
F. UAL Contribution Rate	28.32%	28.32%	28.32%	32.59%	32.59%	28.32%	29.88%
<b>G. Total June 30, 2017 Contribution Rate (C+F)</b>	<b>54.95%</b>	<b>54.04%</b>	<b>53.68%</b>	<b>62.69%</b>	<b>61.87%</b>	<b>42.70%</b>	<b>54.45%</b>
Projected Payroll for FYE 2017 (in thousands)	\$ 6,171	\$ 1,553	\$ 32,848	\$ 6,679	\$ 28,256	\$ 20,087	\$ 95,594

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION IV – CONTRIBUTIONS**

<b>Table IV-6</b>				
<b>Development of the APCD Net Employer Contribution Rate as of June 30, 2018 for FYE 2020</b>				
	<b>Plan 1</b>	<b>Plan 2</b>	<b>PEPRA</b>	<b>Total</b>
<b>Current Year</b>				
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%
<b>G. Total June 30, 2018 Contribution Rate (C+F)</b>	<b>51.24%</b>	<b>50.49%</b>	<b>42.91%</b>	<b>48.63%</b>
Projected Payroll for FYE 2018 (in thousands)	\$ 759	\$ 1,210	\$ 732	\$ 2,700
<b>Prior Year</b>				
A. Basic Employer Normal Cost Rate	10.97%	9.25%	5.48%	8.52%
B. COLA Normal Cost Rate	<u>4.77%</u>	<u>5.51%</u>	<u>1.14%</u>	<u>4.00%</u>
C. Employer Normal Cost Rate	15.74%	14.76%	6.62%	12.52%
D. Basic UAL Contribution Rate	21.72%	21.72%	21.72%	21.72%
E. COLA UAL Contribution Rate	<u>8.61%</u>	<u>8.61%</u>	<u>8.61%</u>	<u>8.61%</u>
F. UAL Contribution Rate	30.33%	30.33%	30.33%	30.33%
<b>G. Total June 30, 2017 Contribution Rate (C+F)</b>	<b>46.07%</b>	<b>45.09%</b>	<b>36.95%</b>	<b>42.85%</b>
Projected Payroll for FYE 2017 (in thousands)	\$ 732	\$ 1,358	\$ 933	\$ 3,023

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018

**SECTION IV – CONTRIBUTIONS**

<b>Table IV-7</b>				
<b>Development of the PEPRA Member and Net Employer Contribution Rates</b>				
<b>as of June 30, 2018 for FYE 2020</b>				
	<b>General</b>			
	<b>2% COLA</b>	<b>3% COLA</b>	<b>Safety</b>	<b>APCD</b>
<b>Current Year</b>				
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>
<b>Member Contribution Rate</b>	<b>8.31%</b>	<b>9.30%</b>	<b>14.35%</b>	<b>7.41%</b>
Basic Employer Normal Cost Rate	6.94%	7.25%	10.61%	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	8.32%	9.31%	14.34%	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%
<b>Employer Contribution Rate</b>	<b>29.03%</b>	<b>30.02%</b>	<b>44.19%</b>	<b>42.91%</b>
<b>Prior Year</b>				
Basic Member Contribution Rate	6.94%	7.68%	10.64%	5.47%
COLA Member Contribution Rate	<u>1.38%</u>	<u>2.13%</u>	<u>3.73%</u>	<u>1.14%</u>
<b>Member Contribution Rate</b>	<b>8.32%</b>	<b>9.81%</b>	<b>14.37%</b>	<b>6.61%</b>
Basic Employer Normal Cost Rate	6.94%	7.68%	10.65%	5.48%
COLA Employer Normal Cost Rate	<u>1.38%</u>	<u>2.13%</u>	<u>3.73%</u>	<u>1.14%</u>
Employer Normal Cost Rate	8.32%	9.81%	14.38%	6.62%
Basic UAL Contribution Rate	13.83%	13.83%	18.81%	21.72%
COLA UAL Contribution Rate	<u>5.66%</u>	<u>5.66%</u>	<u>9.51%</u>	<u>8.61%</u>
Employer UAL Contribution Rate	19.49%	19.49%	28.32%	30.33%
<b>Employer Contribution Rate</b>	<b>27.81%</b>	<b>29.30%</b>	<b>42.70%</b>	<b>36.95%</b>

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**SECTION V – 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, 2018.

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 V-1**

**SCHEDULE OF FUNDED LIABILITIES BY TYPE**  
(dollars in thousands)

Valuation Date	(A)	(B)	(C)	Reported Assets <sup>1</sup>	Portion of Actuarial Liabilities Covered by Reported Assets		
	Active Member Contributions	Retirees And Beneficiaries	Remaining Active Members' Liabilities		(A)	(B)	(C)
June 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 <sup>2</sup>	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%
2009	174,951	1,237,215	851,696	1,705,733	100%	100%	34%

<sup>1</sup> Actuarial Value of Assets. As of June 30 2014, the Actuarial Value of Assets is the Market Value of Assets.

<sup>2</sup> 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, 2018, 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, 2018**

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

<b>Table V-II ACTUARIAL ANALYSIS OF FINANCIAL EXPERIENCE (dollars in thousands)</b>	
Unfunded Actuarial Liability (UAL) as of June 30, 2017	\$ 900,989
Expected Change in UAL	(15,750)
Actuarial (Gains) or Losses During the Year	
Asset Return (Greater) or Less than Expected	\$ (28,015)
New Entrants	1,657
Salary Increases Greater or (Less) than Expected	883
All Other (Including Demographic Experience)	<u>26,345</u>
Total Changes	\$ (14,880)
Unfunded Actuarial Liability (UAL) as of June 30, 2018	\$ 886,109

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX A – MEMBERSHIP INFORMATION**

The data for this valuation was provided by the System staff as of June 30, 2018. 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, 2017 and 2018	2017	2018
<b>Members Now Receiving Benefits</b>		
Service Retirement	3,562	3,683
Disability Retirement	256	267
Beneficiaries and Survivors	557	569
Subtotal	4,375	4,519
<b>Active Members</b>		
Active Vested Members	2,986	2,936
Active Nonvested Members	1,313	1,235
Subtotal	4,299	4,171
<b>Deferred Members</b>	1,463	1,589
<b>Total Membership</b>	10,137	10,279

**Schedule of Average Benefit Payments**

June 30, 2018	<u>Years of Retirement</u>					
	0-9	10-14	15-19	20-24	25-29	30+
Average Monthly Benefit	\$3,461	\$3,265	\$3,154	\$2,549	\$2,697	\$2,106
Average Annual Benefit	41,532	39,180	37,848	30,588	32,364	25,272
Number of Active Retirees	2,313	871	619	299	205	212

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX A – MEMBERSHIP INFORMATION**

**Schedule of Active Member Valuation Data**

Valuation Date	Plan	Active		% Increase in	
		Members	Annual Salary <sup>1</sup>	Average <sup>1</sup>	Average Salary
June 30, 2018	General	3,212	\$ 246,464,767	76,732	5.09%
	Safety	929	91,508,536	98,502	2.51%
	APCD	30	2,585,875	86,196	4.50%
	<b>Total</b>	<b>4,171</b>	<b>\$ 340,559,179</b>	<b>81,649</b>	<b>4.43%</b>

<sup>1</sup>Based on salary data provided in the June 30, 2018 valuation data for FYE 2018.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**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 <sup>1</sup>	Number	Annual Allowance	Number	Annual Allowance		
2008	232	\$ 8,624,426	-72	\$ (1,213,017)	2,972	\$ 83,023,412	17.3%	\$ 27,935
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 <sup>2</sup>	\$ 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

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

<sup>2</sup> 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, 2018**

**APPENDIX A – MEMBERSHIP INFORMATION**

**SBCERS Membership - Active Members as of June 30, 2018**

<b>General Members</b>	<b>Count</b>	<b>Annual Salary<sup>1</sup></b>	<b>Average Age</b>	<b>Average Monthly Salary<sup>1</sup></b>	<b>Average Vesting Service</b>
Plan 2	7	\$422,000	59.3	\$5,024	29.7
Plan 5A	436	\$36,619,000	56.1	\$6,999	26.8
Plan 5B	314	\$34,764,000	49.1	\$9,226	14.4
Plan 5C	1,256	\$88,784,000	48.4	\$5,891	14.5
Plan 7	108	\$9,613,000	41.8	\$7,417	9.2
PEPRA	<u>1,091</u>	<u>\$76,264,000</u>	38.4	\$5,825	2.5
<b>Total</b>	3,212	\$246,464,000	45.9	\$6,394	12.0
<b>APCD Members</b>					
Plan 1	8	\$734,000	58.0	\$7,646	28.6
Plan 2	12	\$1,165,000	45.3	\$8,090	11.2
PEPRA	<u>10</u>	<u>\$687,000</u>	34.2	\$5,725	2.6
<b>Total</b>	30	\$2,586,000	45.0	\$7,183	13.0
<b>Safety Members</b>					
Plan 4A	41	\$5,385,000	52.9	\$10,945	22.5
Plan 4B	13	\$1,656,000	50.5	\$10,615	22.2
Plan 4C	302	\$30,940,000	44.2	\$8,538	15.4
Plan 6A	38	\$4,814,000	52.6	\$10,557	28.4
Plan 6B	256	\$25,710,000	43.7	\$8,369	14.6
PEPRA	<u>279</u>	<u>\$23,003,000</u>	32.8	\$6,871	2.4
<b>Total</b>	929	\$91,509,000	41.5	\$8,209	12.2
<b>Total Active Members</b>	4,171	\$340,559,000	44.9	\$6,804	12.0

<sup>1</sup>Based on salary data provided in the June 30, 2018 valuation data for FYE 2018.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX A – MEMBERSHIP INFORMATION**

**SBCERS Membership - Schedule of Active Member Valuation Data**

Valuation Date	Plan Type	Count	Annual Salary <sup>1</sup>	Average Annual Salary <sup>1</sup>	Increase in Average Salary
<b>June 30, 2009</b>	General	3,450	\$223,831,000	\$64,879	1.80%
	APCD	50	\$3,955,000	\$79,100	5.20%
	Safety	<u>967</u>	<u>\$79,596,000</u>	\$82,312	7.20%
	Total	4,467	\$307,382,000	\$68,812	3.20%
<b>June 30, 2010</b>	General	3,261	\$223,995,000	\$68,689	5.90%
	APCD	46	\$3,716,000	\$80,783	2.10%
	Safety	<u>921</u>	<u>\$79,795,000</u>	\$86,640	5.30%
	Total	4,228	\$307,506,000	\$72,731	5.70%
<b>June 30, 2011</b>	General	3,198	\$222,046,000	\$69,433	1.10%
	APCD	46	\$3,457,000	\$75,161	-7.00%
	Safety	<u>904</u>	<u>\$81,025,000</u>	\$89,630	3.50%
	Total	4,148	\$306,528,000	\$73,898	1.60%
<b>June 30, 2012</b>	General	3,141	\$220,234,000	\$70,116	1.00%
	APCD	46	\$3,475,000	\$75,548	0.50%
	Safety	<u>885</u>	<u>\$79,168,000</u>	\$89,456	-0.20%
	Total	4,072	\$302,877,000	\$74,380	0.70%
<b>June 30, 2013</b>	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%
<b>June 30, 2014</b>	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%
<b>June 30, 2015</b>	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%
<b>June 30, 2016</b>	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%
<b>June 30, 2017</b>	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%
<b>June 30, 2018</b>	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%

<sup>1</sup> 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, 2018**

**APPENDIX A – MEMBERSHIP INFORMATION**

**SBCERS Membership – Deferred Vested Members as of June 30, 2018**

<b>General Members</b>	<b>Count</b>	<b>Average Age</b>
Plan 2	18	57.6
Plan 5A	169	55.6
Plan 5B	455	49.4
Plan 5C	348	44.9
Plan 7	45	40.2
PEPRA	<u>298</u>	37.7
<b>Total</b>	<b>1333</b>	<b>46.2</b>
<b>APCD Members</b>		
Plan 1	8	56.3
Plan 2	12	38.4
PEPRA	<u>4</u>	33.0
<b>Total</b>	<b>24</b>	<b>43.5</b>
<b>Safety Members</b>		
Plan 4A	5	47.2
Plan 4B	47	47.8
Plan 4C	39	43.1
Plan 6A	27	53.6
Plan 6B	64	38.8
PEPRA	<u>50</u>	33.1
<b>Total</b>	<b>232</b>	<b>41.8</b>
<b>Total Inactive</b>	<b>1,589</b>	<b>45.5</b>

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX A – MEMBERSHIP INFORMATION**

**SBCERS Membership – Retired Members as of June 30, 2018**

General Members	Count	Average Current Age	Average Age at Retirement <sup>1</sup>	Monthly Allowances	Average Monthly Benefit
Plan 1	760	82.6	58.1	\$1,328,000	\$1,747
Plan 2	67	69.8	60.7	\$48,000	\$710
Plan 3	6	65.7	56.4	\$7,000	\$1,125
Plan 4A	188	76.2	59.6	\$452,000	\$2,404
Plan 4B	4	72.8	55.6	\$1,000	\$289
Plan 5A	1,607	67.9	59.3	\$5,548,000	\$3,452
Plan 5B	335	67.2	60.9	\$617,000	\$1,842
Plan 5C	379	65.5	62.1	\$741,000	\$1,956
Plan 7	2	62.0	59.2	\$1,000	\$442
<b>Total</b>	<u>3,348</u>	71.4	59.7	<u>\$8,743,000</u>	\$2,611
<b>APCD Members</b>					
Plan 1	50	66.2	58.0	\$172,000	\$3,433
Plan 2	12	67.1	61.3	\$23,000	\$1,906
<b>Total</b>	<u>62</u>	66.4	58.7	<u>\$195,000</u>	\$3,145
<b>Safety Members</b>					
Plan 1	286	76.7	55.0	\$1,260,000	\$4,406
Plan 2	21	75.0	54.6	\$50,000	\$2,381
Plan 3	4	66.0	55.3	\$16,000	\$3,895
Plan 4A	283	66.0	56.0	\$1,984,000	\$7,011
Plan 4B	103	66.6	56.4	\$306,000	\$2,968
Plan 4C	90	62.1	58.3	\$320,000	\$3,560
Plan 4D	2	63.0	63.0	\$8,000	\$3,760
Plan 6A	247	59.2	53.5	\$1,447,000	\$5,858
Plan 6B	73	55.4	56.1	\$237,000	\$3,248
<b>Total</b>	<u>1,109</u>	66.4	55.5	<u>\$5,627,000</u>	\$5,074
<b>Total Retired Members</b>	4,519	70.1	58.6	\$14,565,000	\$3,223

<sup>1</sup> For healthy retired members only, excludes disabled members and beneficiaries.



**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX A – MEMBERSHIP INFORMATION**

**SBCERS Membership – Retired Members as of June 30, 2018**

	Count	Monthly Allowances	Average Monthly Benefit
<b>General Members</b>			
Healthy	2,815	\$7,818,000	\$2,777
Disabled	130	300,000	2,308
Beneficiaries	403	625,000	1,551
<b>Total</b>	<b>3,348</b>	<b>\$8,743,000</b>	<b>\$2,611</b>
<b>APCD Members</b>			
Healthy	56	\$182,000	\$3,250
Disabled	0	0	0
Beneficiaries	6	13,000	2,167
<b>Total</b>	<b>62</b>	<b>\$195,000</b>	<b>\$3,145</b>
<b>Safety Members</b>			
Healthy	812	\$4,629,000	\$5,701
Disabled	137	557,000	4,066
Beneficiaries	160	441,000	2,756
<b>Total</b>	<b>1,109</b>	<b>\$5,627,000</b>	<b>\$5,074</b>
<b>Total Retired Members</b>	<b>4,519</b>	<b>\$14,565,000</b>	<b>\$3,223</b>

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX A – MEMBERSHIP INFORMATION**

**Age & Service Distribution of Active Members by Count and Average Salary as of June 30, 2018  
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	17	26	0	0	0	0	0	0	0	43
25-29	48	244	30	0	0	0	0	0	0	322
30-34	34	272	161	52	0	0	0	0	0	519
35-39	24	179	136	233	38	1	0	0	0	611
40-44	9	105	67	153	152	41	1	0	0	528
45-49	11	71	42	132	193	129	36	0	0	614
50-54	12	64	40	97	120	112	72	31	2	550
55-59	7	69	44	62	94	95	89	70	18	548
60-64	4	21	28	66	61	53	47	33	21	334
65 & Over	1	17	15	22	21	12	5	4	5	102
<b>Total Count</b>	<b>167</b>	<b>1,068</b>	<b>563</b>	<b>817</b>	<b>679</b>	<b>443</b>	<b>250</b>	<b>138</b>	<b>46</b>	<b>4,171</b>

**Salary**

Age	Years of Service									Average Salary*
	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 25	\$59,198	\$61,437	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$60,552
25-29	60,103	63,141	73,396	0	0	0	0	0	0	63,643
30-34	61,614	67,101	74,083	73,939	0	0	0	0	0	69,593
35-39	76,160	70,986	75,462	81,467	84,788	56,193	0	0	0	77,017
40-44	56,642	82,816	76,213	84,638	90,437	97,747	87,750	0	0	85,423
45-49	67,036	71,615	78,565	83,428	90,521	96,609	90,770	0	0	86,865
50-54	83,271	82,857	89,590	82,161	86,633	90,362	92,859	96,372	104,082	87,733
55-59	97,562	96,157	89,703	79,287	82,044	89,762	87,477	104,118	83,099	89,397
60-64	57,451	108,542	101,453	90,192	82,662	82,808	92,280	95,760	74,429	89,204
65 & Over	202,082	93,310	84,571	85,444	77,566	73,803	109,883	92,880	87,864	86,387
<b>Average Salary<sup>1</sup></b>	<b>\$66,918</b>	<b>\$72,608</b>	<b>\$78,930</b>	<b>\$82,627</b>	<b>\$87,214</b>	<b>\$91,306</b>	<b>\$90,853</b>	<b>\$100,054</b>	<b>\$80,571</b>	<b>\$81,649</b>

<sup>1</sup>Based on salary data provided in the June 30, 2018 valuation data for FYE 2018.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX A – MEMBERSHIP INFORMATION**

**Age & Service Distribution of Active Members by Count and Average Salary as of June 30, 2018  
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	11	15	0	0	0	0	0	0	0	26
25-29	37	166	20	0	0	0	0	0	0	223
30-34	25	205	116	37	0	0	0	0	0	383
35-39	23	145	100	152	27	1	0	0	0	448
40-44	6	93	52	109	87	23	1	0	0	371
45-49	7	66	36	95	133	73	23	0	0	433
50-54	11	57	38	82	92	79	51	22	2	434
55-59	7	64	39	58	87	85	77	55	18	490
60-64	4	20	27	61	56	50	44	29	19	310
65 & Over	0	17	14	21	20	11	4	4	3	94
<b>Total Count</b>	<b>131</b>	<b>848</b>	<b>442</b>	<b>615</b>	<b>502</b>	<b>322</b>	<b>200</b>	<b>110</b>	<b>42</b>	<b>3,212</b>

**Salary**

Age	Years of Service									Average Salary*
	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 25	\$53,903	\$53,647	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$53,755
25-29	57,509	56,922	65,605	0	0	0	0	0	0	57,798
30-34	58,546	62,426	66,828	63,912	0	0	0	0	0	63,650
35-39	76,610	68,383	67,850	72,434	75,191	56,193	0	0	0	70,444
40-44	53,276	82,918	72,667	78,427	76,477	85,466	87,750	0	0	78,343
45-49	55,152	69,563	77,075	77,169	83,592	86,148	72,526	0	0	78,886
50-54	78,151	82,196	89,177	79,669	82,233	80,847	82,707	81,383	104,082	82,109
55-59	97,562	96,654	87,033	78,410	81,163	87,055	83,349	95,550	83,099	86,614
60-64	57,451	103,919	101,605	87,312	82,260	82,231	91,913	91,962	72,980	87,721
65 & Over	0	93,310	77,519	83,952	75,645	72,071	113,083	92,880	61,690	82,437
<b>Average Salary<sup>1</sup></b>	<b>\$64,310</b>	<b>\$70,525</b>	<b>\$74,693</b>	<b>\$77,112</b>	<b>\$80,772</b>	<b>\$83,856</b>	<b>\$84,442</b>	<b>\$91,673</b>	<b>\$77,991</b>	<b>\$76,732</b>

<sup>1</sup>Based on salary data provided in the June 30, 2018 valuation data for FYE 2018.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX A – MEMBERSHIP INFORMATION**

**Age & Service Distribution of Active Members by Count and Average Salary as of June 30, 2018  
Safety 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	6	9	0	0	0	0	0	0	0	15
25-29	11	75	9	0	0	0	0	0	0	95
30-34	9	66	45	13	0	0	0	0	0	133
35-39	1	33	36	79	11	0	0	0	0	160
40-44	3	11	13	44	65	18	0	0	0	154
45-49	3	5	6	37	60	56	13	0	0	180
50-54	1	6	2	14	28	33	20	9	0	113
55-59	0	5	4	4	7	10	9	13	0	52
60-64	0	1	1	5	2	3	2	4	2	20
65 & Over	1	0	1	1	1	1	0	0	2	7
<b>Total Count</b>	<b>35</b>	<b>211</b>	<b>117</b>	<b>197</b>	<b>174</b>	<b>121</b>	<b>44</b>	<b>26</b>	<b>4</b>	<b>929</b>

**Salary**

Age	Years of Service									Average Salary*
	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 25	\$68,906	\$74,964	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$72,540
25-29	68,829	76,615	89,323	0	0	0	0	0	0	76,918
30-34	70,136	81,458	92,784	100,076	0	0	0	0	0	86,344
35-39	65,800	82,492	96,605	97,564	108,344	0	0	0	0	94,782
40-44	63,374	81,813	89,863	100,026	109,123	113,439	0	0	0	102,561
45-49	101,539	98,709	87,505	99,497	105,881	110,246	123,048	0	0	106,283
50-54	139,580	89,645	97,439	94,578	101,091	113,139	119,184	133,011	0	109,215
55-59	0	89,790	109,939	91,998	93,002	112,770	121,506	142,371	0	114,996
60-64	0	201,000	97,344	125,326	92,598	92,413	97,945	123,298	88,191	112,644
65 & Over	202,082	0	183,298	116,786	115,999	92,847	0	0	127,124	137,894
<b>Average Salary<sup>1</sup></b>	<b>\$77,257</b>	<b>\$81,045</b>	<b>\$94,577</b>	<b>\$99,119</b>	<b>\$105,864</b>	<b>\$111,133</b>	<b>\$119,835</b>	<b>\$136,197</b>	<b>\$107,658</b>	<b>\$98,502</b>

<sup>1</sup>Based on salary data provided in the June 30, 2018 valuation data for FYE 2018.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX A – MEMBERSHIP INFORMATION**

**Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2018  
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	2	0	0	0	0	0	0	0	2
25-29	0	3	1	0	0	0	0	0	0	4
30-34	0	1	0	2	0	0	0	0	0	3
35-39	0	1	0	2	0	0	0	0	0	3
40-44	0	1	2	0	0	0	0	0	0	3
45-49	1	0	0	0	0	0	0	0	0	1
50-54	0	1	0	1	0	0	1	0	0	3
55-59	0	0	1	0	0	0	3	2	0	6
60-64	0	0	0	0	3	0	1	0	0	4
65 & Over	0	0	0	0	0	0	1	0	0	1
<b>Total Count</b>	<b>1</b>	<b>9</b>	<b>4</b>	<b>5</b>	<b>3</b>	<b>0</b>	<b>6</b>	<b>2</b>	<b>0</b>	<b>30</b>

**Salary**

Age	Years of Service									Average Salary*
	0-1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 25	\$0	\$58,995	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$58,995
25-29	0	70,358	85,882	0	0	0	0	0	0	74,239
30-34	0	78,020	0	89,547	0	0	0	0	0	85,705
35-39	0	68,815	0	132,139	0	0	0	0	0	111,031
40-44	0	84,294	79,659	0	0	0	0	0	0	81,204
45-49	46,716	0	0	0	0	0	0	0	0	46,716
50-54	0	79,814	0	112,624	0	0	84,096	0	0	92,178
55-59	0	0	112,895	0	0	0	91,327	91,109	0	94,849
60-64	0	0	0	0	83,534	0	97,082	0	0	86,921
65 & Over	0	0	0	0	0	0	97,082	0	0	97,082
<b>Average Salary<sup>1</sup></b>	<b>\$46,716</b>	<b>\$71,112</b>	<b>\$89,524</b>	<b>\$111,199</b>	<b>\$83,534</b>	<b>\$0</b>	<b>\$92,040</b>	<b>\$91,109</b>	<b>\$0</b>	<b>\$86,196</b>

<sup>1</sup>Based on salary data provided in the June 30, 2018 valuation data for FYE 2018.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX A – MEMBERSHIP INFORMATION**

**Distribution of Retired Members by Age and Retirement Year as of June 30, 2018  
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	2015-18		
Under 35	0	0	0	0	3	2	1	2	1	9	\$840
35-39	0	0	0	0	0	0	1	0	2	3	\$3,049
40-44	0	0	0	0	0	3	0	4	10	17	\$2,895
45-49	0	0	0	0	2	2	0	9	17	30	\$2,559
50-54	0	0	0	2	2	3	7	24	97	135	\$2,834
55-59	0	0	0	0	6	12	35	172	171	396	\$3,156
60-64	0	0	1	1	17	27	191	286	255	778	\$3,396
65-69	1	2	4	2	22	114	245	281	220	891	\$3,546
70-74	7	6	6	16	93	218	299	205	75	925	\$3,629
75-79	13	6	4	53	117	164	114	45	35	551	\$3,256
80-84	11	5	31	52	93	81	40	21	15	349	\$2,576
85-89	2	21	34	57	47	25	15	15	14	230	\$2,294
90-94	15	19	34	25	10	15	10	13	6	147	\$1,941
95-99	7	16	7	2	3	4	4	2	3	48	\$2,230
100 & Over	4	1	2	2	1	0	0	0	0	10	\$1,754
<b>Total Count</b>	<b>60</b>	<b>76</b>	<b>123</b>	<b>212</b>	<b>416</b>	<b>670</b>	<b>962</b>	<b>1,079</b>	<b>921</b>	<b>4,519</b>	
<b>Avg Monthly Benefit</b>	<b>\$2,044</b>	<b>\$2,083</b>	<b>\$2,461</b>	<b>\$2,470</b>	<b>\$2,837</b>	<b>\$3,129</b>	<b>\$3,437</b>	<b>\$3,375</b>	<b>\$3,510</b>	<b>\$3,223</b>	<b>\$3,223</b>

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX A – MEMBERSHIP INFORMATION**

**Distribution of Retired Members by Age and Retirement Year as of June 30, 2018  
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	2015-18		
Under 35	0	0	0	0	3	2	1	0	0	6	\$567
35-39	0	0	0	0	0	0	1	0	0	1	\$754
40-44	0	0	0	0	0	2	0	1	5	8	\$1,771
45-49	0	0	0	0	1	1	0	2	5	9	\$1,411
50-54	0	0	0	2	1	2	3	1	46	55	\$1,241
55-59	0	0	0	0	5	7	18	69	119	218	\$1,606
60-64	0	0	1	1	11	19	123	145	247	547	\$2,515
65-69	1	0	2	2	17	81	166	193	245	707	\$3,158
70-74	1	0	4	7	64	133	251	160	83	703	\$3,057
75-79	2	2	2	40	61	135	99	36	31	408	\$2,589
80-84	3	4	20	38	79	76	37	15	15	287	\$2,280
85-89	2	18	29	55	43	22	12	10	17	208	\$2,173
90-94	12	18	34	25	10	12	10	8	8	137	\$1,918
95-99	4	16	7	2	3	4	4	2	3	45	\$2,115
100 & Over	3	1	2	2	1	0	0	0	0	9	\$1,634
<b>Total Count</b>	<b>28</b>	<b>59</b>	<b>101</b>	<b>174</b>	<b>299</b>	<b>496</b>	<b>725</b>	<b>642</b>	<b>824</b>	<b>3,348</b>	
<b>Avg Monthly Benefit</b>	<b>\$1,336</b>	<b>\$1,732</b>	<b>\$2,081</b>	<b>\$2,047</b>	<b>\$1,908</b>	<b>\$2,365</b>	<b>\$2,758</b>	<b>\$2,915</b>	<b>\$2,938</b>	<b>\$2,611</b>	<b>\$2,611</b>

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX A – MEMBERSHIP INFORMATION**

**Distribution of Retired Members by Age and Retirement Year as of June 30, 2018  
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	2015-17		
Under 35	0	0	0	0	0	0	0	2	1	3	\$1,384
35-39	0	0	0	0	0	0	0	0	2	2	\$4,196
40-44	0	0	0	0	0	1	0	2	6	9	\$3,895
45-49	0	0	0	0	1	1	0	4	15	21	\$3,050
50-54	0	0	0	0	1	1	4	8	65	79	\$3,950
55-59	0	0	0	0	1	5	16	61	84	167	\$5,268
60-64	0	0	0	0	6	8	62	82	58	216	\$5,677
65-69	0	2	2	0	5	32	76	28	25	170	\$5,095
70-74	6	6	2	9	29	83	44	16	13	208	\$5,545
75-79	11	4	2	13	56	28	14	4	9	141	\$5,196
80-84	8	1	11	14	14	3	1	5	1	58	\$4,014
85-89	0	3	5	2	4	2	3	2	0	21	\$3,602
90-94	3	1	0	0	0	3	0	1	2	10	\$2,261
95-99	3	0	0	0	0	0	0	0	0	3	\$3,957
100 & Over	1	0	0	0	0	0	0	0	0	1	\$2,828
<b>Total Count</b>	<b>32</b>	<b>17</b>	<b>22</b>	<b>38</b>	<b>117</b>	<b>167</b>	<b>220</b>	<b>215</b>	<b>281</b>	<b>1,109</b>	
<b>Avg Monthly Benefit</b>	<b>\$2,663</b>	<b>\$3,302</b>	<b>\$4,203</b>	<b>\$4,405</b>	<b>\$5,213</b>	<b>\$5,435</b>	<b>\$5,710</b>	<b>\$5,042</b>	<b>\$4,870</b>	<b>\$5,074</b>	<b>\$5,074</b>



**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX A – MEMBERSHIP INFORMATION**

**Distribution of Retired Members by Age and Retirement Year as of June 30, 2018  
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	2015-17		
Under 35	0	0	0	0	0	0	0	0	0	0	\$0
35-39	0	0	0	0	0	0	0	0	0	0	\$0
40-44	0	0	0	0	0	0	0	0	0	0	\$0
45-49	0	0	0	0	0	0	0	0	0	0	\$0
50-54	0	0	0	0	0	0	0	0	1	1	\$2,374
55-59	0	0	0	0	0	0	1	5	5	11	\$1,823
60-64	0	0	0	0	0	0	6	6	3	15	\$2,677
65-69	0	0	0	0	0	1	3	5	5	14	\$4,360
70-74	0	0	0	0	0	2	4	6	2	14	\$3,832
75-79	0	0	0	0	0	1	1	0	0	2	\$2,545
80-84	0	0	0	0	0	2	2	0	0	4	\$3,022
85-89	0	0	0	0	0	1	0	0	0	1	\$55
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
<b>Total Count</b>	0	0	0	0	0	7	17	22	16	62	
<b>Avg Monthly Benefit</b>	\$0	\$0	\$0	\$0	\$0	\$2,228	\$2,949	\$3,287	\$3,529	\$3,145	\$3,145

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX A – MEMBERSHIP INFORMATION**

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

	Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
<b>June 30, 2017</b>	<b>4,299</b>	<b>1,463</b>	<b>66</b>	<b>190</b>	<b>3,562</b>	<b>557</b>	<b>10,137</b>
New Entrants	329	0	0	0	0	0	329
Rehires	20	(20)	0	0	0	0	0
Duty Disabilities	(11)	0	0	11	0	0	0
Ordinary Disabilities	(4)	(1)	5	0	0	0	0
Retirements	(140)	(58)	0	0	199	0	1
Retirements from Safety with Misc Service	0	0	1	0	8	0	9
Vested Terminations	(97)	98	0	0	0	0	1
Died, With Beneficiaries' Benefit Payable	0	0	(1)	(3)	(24)	28	0
Non-Vested Terminations and Death without beneficiary	(133)	129	(2)	(4)	(55)	0	(65)
Transfers	(18)	17	0	0	0	0	(1)
Beneficiary Deaths	0	0	0	0	0	(27)	(27)
Domestic Relations Orders	0	1	0	0	0	12	13
Withdrawals Paid	(74)	(40)	0	0	0	0	(114)
Data Corrections	0	0	1	4	(5)	1	1
Benefit Expired	0	0	(1)	0	(2)	(2)	(5)
<b>June 30, 2018</b>	<b>4,171</b>	<b>1,589</b>	<b>69</b>	<b>198</b>	<b>3,683</b>	<b>569</b>	<b>10,279</b>

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX A – MEMBERSHIP INFORMATION**

**Reconciliation of System Membership Since Prior Valuation  
General Members**

	Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
<b>June 30, 2017</b>	<b>3,315</b>	<b>1,219</b>	<b>57</b>	<b>70</b>	<b>2,746</b>	<b>402</b>	<b>7,809</b>
New Entrants	262	0	0	0	0	0	262
Rehires	15	(15)	0	0	0	0	0
Duty Disabilities	(2)	0	0	2	0	0	0
Ordinary Disabilities	(3)	(1)	4	0	0	0	0
Retirements	(100)	(42)	0	0	143	0	1
Retirements from one plan with service in another	0	0	0	0	5	0	5
Vested Terminations	(79)	80	0	0	0	0	1
Died, With Beneficiaries' Benefit Payable	0	0	(1)	0	(20)	21	0
Non-Vested Terminations and Death without beneficiary	(115)	112	(2)	(2)	(54)	0	(61)
Transfers	(18)	15	0	0	0	0	(3)
Beneficiary Deaths	0	0	0	0	0	(25)	(25)
Domestic Relations Orders	0	0	0	0	0	5	5
Withdrawals Paid	(63)	(35)	0	0	0	0	(98)
Data Corrections	0	0	1	2	(3)	1	1
Benefit Expired	0	0	(1)	0	(2)	(1)	(4)
<b>June 30, 2018</b>	<b>3,212</b>	<b>1,333</b>	<b>58</b>	<b>72</b>	<b>2,815</b>	<b>403</b>	<b>7,893</b>

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX A – MEMBERSHIP INFORMATION**

**Reconciliation of System Membership Since Prior Valuation  
Safety Members**

	Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
<b>June 30, 2017</b>	<b>949</b>	<b>222</b>	<b>9</b>	<b>120</b>	<b>761</b>	<b>149</b>	<b>2,210</b>
New Entrants	65	0	0	0	0	0	65
Rehires	5	(5)	0	0	0	0	0
Duty Disabilities	(9)	0	0	9	0	0	0
Ordinary Disabilities	(1)	0	1	0	0	0	0
Retirements	(40)	(16)	0	0	56	0	0
Retirements from Safety with Misc Service	0	0	1	0	2	0	3
Vested Terminations	(17)	17	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	(3)	(4)	7	0
Non-Vested Terminations and Death without beneficiary	(16)	15	0	(2)	(1)	0	(4)
Transfers	2	1	0	0	0	0	3
Beneficiary Deaths	0	0	0	0	0	(2)	(2)
Domestic Relations Orders	0	1	0	0	0	7	8
Withdrawals Paid	(9)	(3)	0	0	0	0	(12)
Data Corrections	0	0	0	2	(2)	0	0
Benefit Expired	0	0	0	0	0	(1)	(1)
<b>June 30, 2018</b>	<b>929</b>	<b>232</b>	<b>11</b>	<b>126</b>	<b>812</b>	<b>160</b>	<b>2,270</b>

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX A – MEMBERSHIP INFORMATION**

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

	Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
<b>June 30, 2017</b>	<b>35</b>	<b>22</b>	<b>0</b>	<b>0</b>	<b>55</b>	<b>6</b>	<b>118</b>
New Entrants	2	0	0	0	0	0	2
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	0	0	0	0	0	0	0
Retirements from Safety with Misc Service	0	0	0	0	1	0	1
Vested Terminations	(1)	1	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	0	0
Non-Vested Terminations and Death without beneficiary	(2)	2	0	0	0	0	0
Transfers	(2)	1	0	0	0	0	(1)
Beneficiary Deaths	0	0	0	0	0	0	0
Domestic Relations Orders	0	0	0	0	0	0	0
Withdrawals Paid	(2)	(2)	0	0	0	0	(4)
Data Corrections	0	0	0	0	0	0	0
Benefit Expired	0	0	0	0	0	0	0
<b>June 30, 2018</b>	<b>30</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>56</b>	<b>6</b>	<b>116</b>

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX B – MEMBER CONTRIBUTION RATES**

<b>Plan/Tier</b>	<b>Code Section</b>	<b>Member Contribution Provides Average Annuity</b>	<b>FAS Period</b>
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 years
General 2	NA	NA	3 years
General 7	31621.4	1/240th of Final Average Salary (FAS) at age 60	3 years
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 years

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX B – MEMBER CONTRIBUTION RATES**

**Member Contribution Rates effective as of the July 1, 2016 Valuation**

Entry Age	General				APCD		Safety		
	5A	5B	5C	7	1	2	4A & 6A	4B	4C & 6B
16	2.93%	5.86%	2.84%	2.36%	3.44%	6.89%	5.41%	10.83%	5.23%
17	2.93%	5.86%	2.84%	2.36%	3.44%	6.89%	5.41%	10.83%	5.23%
18	2.93%	5.86%	2.84%	2.36%	3.44%	6.89%	5.41%	10.83%	5.23%
19	2.93%	5.86%	2.84%	2.36%	3.44%	6.89%	5.41%	10.83%	5.23%
20	2.93%	5.86%	2.84%	2.36%	3.44%	6.89%	5.41%	10.83%	5.23%
21	2.99%	5.99%	2.90%	2.42%	3.52%	7.04%	5.53%	11.05%	5.34%
22	3.06%	6.12%	2.97%	2.47%	3.60%	7.20%	5.64%	11.28%	5.45%
23	3.13%	6.26%	3.03%	2.53%	3.68%	7.36%	5.76%	11.52%	5.56%
24	3.20%	6.40%	3.10%	2.58%	3.76%	7.52%	5.88%	11.76%	5.68%
25	3.27%	6.55%	3.17%	2.64%	3.85%	7.69%	6.00%	12.00%	5.80%
26	3.35%	6.69%	3.24%	2.70%	3.93%	7.86%	6.12%	12.25%	5.92%
27	3.42%	6.84%	3.32%	2.76%	4.02%	8.03%	6.25%	12.50%	6.03%
28	3.50%	7.00%	3.39%	2.82%	4.10%	8.21%	6.38%	12.75%	6.16%
29	3.58%	7.15%	3.47%	2.89%	4.19%	8.39%	6.50%	13.01%	6.28%
30	3.66%	7.31%	3.54%	2.95%	4.28%	8.57%	6.63%	13.26%	6.40%
31	3.74%	7.48%	3.62%	3.02%	4.37%	8.75%	6.76%	13.52%	6.52%
32	3.82%	7.64%	3.70%	3.08%	4.47%	8.93%	6.89%	13.78%	6.65%
33	3.90%	7.81%	3.78%	3.15%	4.56%	9.12%	7.02%	14.05%	6.77%
34	3.99%	7.98%	3.86%	3.22%	4.65%	9.31%	7.16%	14.31%	6.90%
35	4.07%	8.15%	3.94%	3.28%	4.75%	9.50%	7.29%	14.58%	7.03%
36	4.16%	8.32%	4.02%	3.35%	4.85%	9.69%	7.43%	14.86%	7.16%
37	4.25%	8.49%	4.11%	3.42%	4.95%	9.89%	7.57%	15.13%	7.29%
38	4.34%	8.67%	4.19%	3.49%	5.05%	10.09%	7.70%	15.41%	7.42%
39	4.43%	8.85%	4.28%	3.57%	5.15%	10.29%	7.85%	15.69%	7.56%
40	4.52%	9.03%	4.37%	3.64%	5.25%	10.50%	7.99%	15.98%	7.69%
41	4.61%	9.22%	4.46%	3.71%	5.35%	10.70%	8.14%	16.28%	7.83%
42	4.70%	9.41%	4.54%	3.79%	5.45%	10.90%	8.29%	16.58%	7.97%
43	4.80%	9.60%	4.63%	3.86%	5.56%	11.11%	8.44%	16.89%	8.12%
44	4.89%	9.79%	4.72%	3.94%	5.66%	11.32%	8.60%	17.20%	8.26%
45	4.99%	9.98%	4.82%	4.01%	5.77%	11.54%	8.76%	17.52%	8.41%
46	5.09%	10.18%	4.91%	4.09%	5.88%	11.76%	8.92%	17.84%	8.55%
47	5.19%	10.37%	5.00%	4.17%	5.99%	11.99%	9.08%	18.17%	8.68%
48	5.28%	10.57%	5.09%	4.24%	6.10%	12.20%	9.24%	18.47%	8.79%
49	5.38%	10.77%	5.19%	4.32%	6.20%	12.40%	9.37%	18.75%	8.87%
50	5.49%	10.98%	5.28%	4.40%	6.28%	12.57%	9.48%	18.97%	8.91%
51	5.59%	11.19%	5.38%	4.48%	6.35%	12.70%	9.55%	19.10%	8.91%
52	5.70%	11.40%	5.46%	4.55%	6.38%	12.77%	9.58%	19.15%	8.91%
53	5.80%	11.60%	5.54%	4.62%	6.39%	12.77%	9.58%	19.15%	9.14%
54	5.90%	11.79%	5.61%	4.67%	6.39%	12.77%	9.58%	19.15%	9.45%
55	5.97%	11.95%	5.65%	4.71%	6.39%	12.77%	9.58%	19.15%	9.45%
56	6.04%	12.07%	5.67%	4.73%	6.39%	12.77%	9.58%	19.15%	9.45%
57	6.07%	12.14%	5.67%	4.73%	6.39%	12.77%	9.58%	19.15%	9.45%
58	6.07%	12.15%	5.85%	4.88%	6.39%	12.77%	9.58%	19.15%	9.45%
59	6.07%	12.15%	6.05%	5.04%	6.39%	12.77%	9.58%	19.15%	9.45%
60	6.07%	12.15%	6.05%	5.04%	6.39%	12.77%	9.58%	19.15%	9.45%

**Assumptions:**

Interest: 7.00%

Salary: 2016 Valuation Scale (Service based, includes wage inflation at 3.00%)

Unisex Mortality: CalPERS Healthy Annuitant Mortality, projected to 2039 using MP-2016.  
(blended 35% Male /65% Female for General and APCD, and blended 80% Male / 20% Female for Safety)

Administrative expenses: Rates have been loaded by 3.4% to account for expected administrative expenses allocated to the members.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX B – MEMBER CONTRIBUTION RATES**

**PEPRA Member Contribution Rates effective as of the July 1, 2018 Valuation**

		PEPRA Rates		
2% COLA	General	3% COLA	Safety	APCD
8.31%		9.30%	14.35%	7.41%
<b>Assumptions:</b>				
Interest:	7.00%			
Salary:	2016 Valuation 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 (CALPERS Healthy Annuitant Mortality, based on generational mortality improvements using MP-2016).			
Administrative expenses:	Rates have been loaded by 3.4% to account for the expected administrative expenses allocated to the members.			



**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX B – MEMBER CONTRIBUTION RATES**

**Member Cost Sharing/Pick-Up Contributions by Bargaining Group  
Estimated Rate During July 1, 2018 to June 30, 2019<sup>1</sup>  
(Non-PEPRA Plans Only)**

<b>Bargaining Unit</b>	<b>Union</b>	<b>Employer Contribution Offset<sup>1</sup></b>	<b>Additional Member Contribution<sup>1</sup></b>
10, 11	Union of American Physicians & Dentists	1.05%	1.06%
12, 13	Fire Fighters Local 2046	1.57%	1.58%
14, 15	Deputy Sheriffs' Association - Safety	1.57%	1.58%
14, 15	Deputy Sheriffs' Association - non-Safety	1.18%	1.19%
17	Deputy District Attorneys	1.12%	1.13%
18, 19	Probation Peace Officers	1.57%	1.58%
20	Deputy Public Defenders	1.18%	1.19%
21, 22	SEIU Local 721	1.18%	1.19%
23, 24, 25, 26, 27	SEIU Local 620	1.18%	1.19%
28, 29	Engineers & Technicians	1.18%	1.19%
30	Civil Attorneys Association	1.11%	1.12%
32	Confidential	1.18%	1.19%
35, 40, 41, 42, 43	Unrepresented Managers (including CEO)	0.66%	0.66%
35, 40, 41, 42, 43	Unrepresented Managers - Safety	0.66%	0.66%
36	Unrepresented Confidential Attorneys	1.11%	1.12%
39	Board of Supervisors	0.45%	0.45%
44	Sheriff Managers Association	1.32%	1.33%

<sup>1</sup> 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, 2018**

**APPENDIX B – MEMBER CONTRIBUTION RATES**

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

<b>Bargaining Unit</b>	<b>Union</b>	<b>Employer Contribution Offset<sup>1</sup></b>	<b>Additional Member Contribution<sup>1</sup></b>
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%

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

**APPENDIX 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 12 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 14 years. As of June 30, 2018, it would take approximately 14 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, 2018

**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, 2013 through June 30, 2016 and adopted by the Board. More details on the rationale for the demographic and economic assumptions can be found in the Experience Analysis dated December 14, 2016.

### **1. Rate of Return**

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

### **2. Administrative Expenses**

Administrative expenses are assumed to be \$5.5 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 PEPRA 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  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX C – STATEMENT OF CURRENT ACTUARIAL  
ASSUMPTIONS AND METHODS**

**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 3.75%. 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 2.00% 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%. This assumption was adopted effective June 30, 2016.

**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 two years younger than their spouses.

<b>Percentage Married</b>	
<b>Gender</b>	<b>Percentage</b>
Males	75%
Females	55%

**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 preresognition of potential costs included in the valuation.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX C – STATEMENT OF CURRENT ACTUARIAL  
ASSUMPTIONS AND METHODS**

**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	2.50%	3.25%
4	2.00%	2.50%
5	1.50%	2.00%
6	1.25%	1.60%
7	1.00%	1.30%
8	0.90%	1.20%
9	0.80%	1.10%
10	0.78%	1.00%
11	0.75%	0.95%
12	0.70%	0.92%
13	0.65%	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%	0.74%
20	0.42%	0.72%
21	0.40%	0.69%
22	0.38%	0.67%
23	0.36%	0.64%
24	0.34%	0.62%
25	0.32%	0.59%
26	0.30%	0.57%
27	0.28%	0.54%
28	0.26%	0.52%
29	0.25%	0.50%
30+	0.25%	0.50%

*Increases are compound rather than additive.*

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX C – STATEMENT OF CURRENT ACTUARIAL  
ASSUMPTIONS AND METHODS**

**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	6.00%	5.00%
6	6.00%	2.75%
7	5.00%	2.75%
8	5.00%	2.75%
9	4.50%	2.75%
10	4.50%	2.00%
11	3.50%	1.50%
12	3.50%	1.30%
13	3.00%	1.30%
14	2.50%	1.30%
15	2.50%	1.30%
16	2.50%	1.30%
17	1.50%	1.30%
18	1.50%	1.30%
19	1.50%	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.*

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX C – STATEMENT OF CURRENT ACTUARIAL  
ASSUMPTIONS AND METHODS**

**14. Withdrawal**

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

Rates of Withdrawal		
Service	General	Safety
0	100.00%	100.00%
1	100.00%	100.00%
2	100.00%	100.00%
3	100.00%	100.00%
4	100.00%	100.00%
5	20.00%	20.00%
6	20.00%	20.00%
7	20.00%	20.00%
8	20.00%	20.00%
9	20.00%	20.00%
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%	10.00%
16	10.00%	10.00%
17	10.00%	10.00%
18	10.00%	10.00%
19	10.00%	10.00%
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  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX C – STATEMENT OF CURRENT ACTUARIAL  
ASSUMPTIONS AND METHODS**

Former members with contributions on deposit 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 65
Safety Plans 4 and 8 (PEPRA) Members:	Age 54
Safety Plan 6 Members:	Age 52
APCD Members:	Age 58

**15. Reciprocal Transfers**

30% of vested terminated General (except Plan 2) and 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:	3.25%
Safety Members:	3.50%

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX C – STATEMENT OF CURRENT ACTUARIAL  
ASSUMPTIONS AND METHODS**

**16. Rates of Disability**

Disability rates of active participants are shown below.

Rates of Disability				
Age	General		Safety	
	Years of Service		Years of Service	
	Less than 5	5 or More	Less than 5	5 or More
29 or less	0.004%	0.010%	0.045%	0.050%
30	0.004%	0.010%	0.054%	0.060%
31	0.004%	0.010%	0.054%	0.060%
32	0.004%	0.010%	0.054%	0.060%
33	0.004%	0.010%	0.054%	0.060%
34	0.004%	0.010%	0.054%	0.060%
35	0.004%	0.010%	0.090%	0.100%
36	0.008%	0.020%	0.090%	0.100%
37	0.008%	0.020%	0.090%	0.100%
38	0.008%	0.020%	0.090%	0.100%
39	0.008%	0.020%	0.090%	0.100%
40	0.008%	0.020%	0.117%	0.130%
41	0.008%	0.020%	0.117%	0.130%
42	0.012%	0.030%	0.117%	0.130%
43	0.016%	0.040%	0.117%	0.130%
44	0.020%	0.050%	0.117%	0.130%
45	0.024%	0.060%	0.135%	0.150%
46	0.024%	0.060%	0.162%	0.180%
47	0.024%	0.060%	0.180%	0.200%
48	0.024%	0.060%	0.225%	0.250%
49	0.024%	0.060%	0.225%	0.250%
50	0.028%	0.070%	0.252%	0.280%
51	0.028%	0.070%	0.270%	0.300%
52	0.028%	0.070%	0.450%	0.500%
53	0.028%	0.070%	0.450%	0.500%
54	0.028%	0.070%	0.450%	0.500%
55	0.040%	0.100%	0.450%	0.500%
56	0.040%	0.100%	0.450%	0.500%
57	0.040%	0.100%	0.450%	0.500%
58	0.040%	0.100%	0.450%	0.500%
59	0.040%	0.100%	0.450%	0.500%
60	0.060%	0.150%	0.720%	0.800%
61	0.060%	0.150%	0.720%	0.800%
62	0.060%	0.150%	0.720%	0.800%
63	0.060%	0.150%	0.720%	0.800%
64	0.060%	0.150%	0.720%	0.800%
65	0.060%	0.150%	0.000%	0.000%
66	0.060%	0.150%		
67	0.060%	0.150%		
68	0.060%	0.150%		
69	0.060%	0.150%		
70	0.060%	0.150%		
71	0.060%	0.150%		
72	0.060%	0.150%		
73	0.060%	0.150%		
74	0.060%	0.150%		
75	0.000%	0.000%		

40% 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 of service are assumed to be service-related.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX C – STATEMENT OF CURRENT ACTUARIAL  
ASSUMPTIONS AND METHODS**

**17. Rates of Mortality for Healthy Lives**

Mortality rates for retirees, beneficiaries, terminated vested, and reciprocals are based on the sex distinct 2014 CalPERS Healthy Annuitant Mortality Tables adjusted by 0.95 for males and 0.90 for females, with Generational improvement using Projection Scale MP-2016 from a base year of 2009.

Non-duty related mortality rates for active members are based on the sex distinct 2014 CalPERS Preretirement Non-Industrial Mortality Table, with no adjustment, with Generational improvement using Projection Scale MP-2016 from a base year of 2009. Safety members are also subject to the 2014 CalPERS Preretirement Industrial Mortality Table for duty-related deaths, with the same Generational improvements applied.

**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-2016 from a base year of 2009.

**19. Benefit Payment Timing**

End of the month

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX C – STATEMENT OF CURRENT ACTUARIAL  
ASSUMPTIONS AND METHODS**

**20. Rates of Retirement**

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

Rates of Retirement								
Age	General		General - PEPRAs		Plan 4		Safety Plan 6	
	Svc < 30	Svc >= 30	Male	Female	Svc < 20	Svc >= 20	Svc < 20	Svc >= 20
< 34	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
35	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	1.00%
36	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	1.00%
37	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	1.00%
38	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	1.00%
39	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	1.00%
40	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	1.00%
41	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	1.00%
42	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	1.00%
43	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	1.00%
44	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	1.00%
45	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	1.00%
46	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	2.00%
47	0.00%	0.00%	0.00%	0.00%	0.00%	1.00%	0.00%	5.00%
48	0.00%	4.00%	0.00%	0.00%	0.00%	1.00%	0.00%	5.00%
49	0.00%	4.00%	0.00%	0.00%	0.00%	3.00%	0.00%	17.00%
50	3.00%	4.00%	0.00%	0.00%	4.00%	4.00%	20.00%	25.00%
51	3.00%	4.00%	0.00%	0.00%	4.00%	4.00%	15.00%	15.00%
52	3.00%	4.00%	2.40%	1.80%	4.00%	4.00%	15.00%	20.00%
53	3.00%	4.00%	2.40%	1.80%	5.00%	5.00%	15.00%	20.00%
54	3.00%	5.00%	2.40%	5.40%	10.00%	20.00%	15.00%	30.00%
55	5.00%	10.00%	2.40%	5.40%	10.00%	35.00%	25.00%	35.00%
56	5.00%	10.00%	3.60%	5.40%	10.00%	20.00%	15.00%	25.00%
57	7.00%	10.00%	3.60%	5.40%	10.00%	25.00%	15.00%	25.00%
58	7.00%	10.00%	3.60%	5.40%	10.00%	25.00%	15.00%	25.00%
59	7.00%	10.00%	7.20%	7.20%	10.00%	25.00%	15.00%	25.00%
60	7.00%	15.00%	9.00%	9.00%	25.00%	25.00%	15.00%	25.00%
61	15.00%	30.00%	15.00%	10.80%	15.00%	25.00%	15.00%	25.00%
62	25.00%	40.00%	20.00%	20.00%	30.00%	25.00%	15.00%	25.00%
63	15.00%	40.00%	20.00%	20.00%	20.00%	30.00%	15.00%	25.00%
64	26.00%	40.00%	20.00%	20.00%	20.00%	30.00%	15.00%	25.00%
65	26.00%	40.00%	25.00%	25.00%	100.00%	100.00%	100.00%	100.00%
66	26.00%	40.00%	25.00%	25.00%				
67	26.00%	40.00%	40.00%	40.00%				
68	26.00%	40.00%	25.00%	25.00%				
69	26.00%	40.00%	25.00%	25.00%				
70	26.00%	40.00%	25.00%	25.00%				
71	26.00%	40.00%	25.00%	25.00%				
72	26.00%	40.00%	25.00%	25.00%				
73	26.00%	40.00%	25.00%	25.00%				
74	26.00%	40.00%	25.00%	25.00%				
75	100.00%	100.00%	100.00%	100.00%				

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018

**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.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX D – SUMMARY OF PLAN PROVISIONS**

- General Plan 5C:** Members in certain bargaining units hired on or after October 10, 1994. Members in those bargaining units transferred from Plan 5B on March 10, 2008.
- General Plan 7:** County General employees hired on or after June 25, 2012, and other new non-PEPRA General hires for employers that have adopted Plan 7.
- Safety Plan 4C:** Members in certain bargaining units who were hired on or after October 10, 1994. All members in certain bargaining units. Members in those bargaining units transferred from Plan 4B on July 3, 2006.
- Safety Plan 6A:** Members in certain bargaining units hired prior to October 10, 1994. Members in those bargaining units transferred from Plan 4A on February 25, 2008.
- Safety Plan 6B:** Members in certain bargaining units hired after October 10, 1994. Members in those bargaining units transferred from Plan 4B on February 25, 2008.
- Plan 8 (PEPRA):** All new members hired on or after January 1, 2013. Employees who transfer from and are eligible for reciprocity with another public employer will not be PEPRA members if their service in the reciprocal system was under a pre-PEPRA tier.

## **B. Member Contributions**

**Basic:** Contributions are based on the entry age and class of each member and are required of all members except General Plan 2 members. See Appendix 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)

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018

APPENDIX D – SUMMARY OF PLAN PROVISIONS

**Cost-of-Living:** Some members may contribute towards the cost-of-living benefit based on increases in COLA Normal Cost rates. No additional employee contributions towards the cost-of-living benefits are included in the current employee rates.

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

General Plan 5A member rates are half General Plan 5B member rates.  
General Plan 5C is based on half rates.

APCD Plan 1 member rates are half APCD Plan 2 member rates.

Safety Plan 4A member rates are half Safety Plan 4B member rates.

Safety Plans 4C, 6A, and 6B are based on half rates.

(31621.2, 31621.4, 31621.5, 31621.6, 31581.1)

**C. Employer Contributions:**

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

**D. Service Retirement Allowance:**

**Eligibility:**

**General Plan members:**

**Plans 5A,**

**5B, 5C, & 7:**

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

Any age with 30 years of service; or

Age 70 regardless of service. (31672, 31672.1)

**Plan 2:**

Age 55 with 10 years of service and 10 years of elapsed time since membership. (31486.4)

**APCD Plan members:**

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

Any age with 30 years of service; or

Age 70 regardless of service. (31672, 31672.1)

**Safety Plan members:**

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

Any age with 20 years of service. (31663.25)

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018

APPENDIX D – SUMMARY OF PLAN PROVISIONS

***PEPRA Plan 8 members:***

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

Safety: Age 50 with 5 years of service.

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

**Final Compensation:**

***General Plan members:***

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

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

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

***APCD Plan members:***

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

***Safety Plan members***

**Plans 4A, 4B, & 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



SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018

**APPENDIX D – SUMMARY OF PLAN PROVISIONS**

Security, the compensation cap is 120% of the above limit (\$145,666 for 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.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX D – SUMMARY OF PLAN PROVISIONS**

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

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018

APPENDIX D – SUMMARY OF PLAN PROVISIONS

**Maximum Allowance:**

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

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

**Unmodified Retirement Allowance (Normal Form):**

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

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

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

**Optional Retirement Allowance:**

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

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

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

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

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

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

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018

**APPENDIX D – SUMMARY OF PLAN PROVISIONS**

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

**Death after Retirement:**

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

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

**E. Service-Connected Disability Retirement Allowance**

**Eligibility:**

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

**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).

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018

APPENDIX D – SUMMARY OF PLAN PROVISIONS

**Death after Retirement:**

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

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

**F. Non Service-Connected Disability Retirement Allowance**

**Eligibility:**

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

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

**Monthly Allowance:**

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

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

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018

**APPENDIX D – SUMMARY OF PLAN PROVISIONS**

**Safety Members:** Age 55. (31727.2)

**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)

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018**

**APPENDIX D – SUMMARY OF PLAN PROVISIONS**

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

**Monthly Allowance:**

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

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

**J. Cost-of-Living Increases**

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

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

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

**General Plan 7:**

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

**General Plan 8 (PEPRA):**

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

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



SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM  
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2018

APPENDIX D – SUMMARY OF PLAN PROVISIONS

**COLA Bank:**

**All Plans (excluding General Plan 2):**

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

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

**APPENDIX E – 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 E – 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.



*Classic Values, Innovative Advice*