



Santa Barbara County Employees' Retirement System

Actuarial Valuation Report as of June 30, 2016

**Produced by Cheiron
December 2016**

TABLE OF CONTENTS

<i>Section</i>	<i>Page</i>
Letter of Transmittal	i
Foreword	ii
Section I Executive Summary	1
Section II Assets	13
Section III Liabilities	21
Section IV Contributions.....	25
Section V Comprehensive Annual Financial Reporting Information	33
 <i>Appendices</i>	
Appendix A Membership Information	35
Appendix B Statement of Current Actuarial Assumptions and Methods	54
Appendix C Summary of Plan Provisions.....	64
Appendix D Glossary	77
Appendix E Member Contribution Rates.....	79
Appendix F Statement of Prior Actuarial Assumptions and Methods.....	81

December 8, 2016

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, 2016. This report contains information on the System's assets, 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, EA, FCA, MAAA
Consulting Actuary



Anne D Harper, FSA, EA, MAAA
Consulting Actuary

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016

FOREWORD

Cheiron has performed the actuarial valuation of the Santa Barbara County Employees' Retirement System as of June 30, 2016. 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), actuarial assumptions and methods employed in the valuation (Appendix B), a summary of pertinent plan provisions (Appendix C), a glossary of key actuarial terms (Appendix D), and tables containing member contribution rates (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.

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 2017-2018, 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, 2017.

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, 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).

At a special meeting held on September 5, 2014, the Board of Retirement adopted a new funding policy for any subsequent unexpected change in the unfunded actuarial liability after June 30, 2013. 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 down of the amortization payment at the beginning and end of the amortization period and nine 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 new 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

SECTION I – EXECUTIVE SUMMARY

on October 26, 2016. Many of the assumptions changed from those used in the prior valuation, most notably the discount rate, COLA and wage inflation assumptions, and the mortality assumptions. A summary of the assumptions and methods used in the current valuation is shown in Appendix B. A summary of the assumptions and methods used in the prior valuation is shown in Appendix F.

B. Key Findings of this Valuation

The key results of the June 30, 2016 actuarial valuation are as follows:

- The actuarially determined employer contribution rate increased from 36.55% of payroll to 38.71% of payroll for the current valuation.
- The System's funded ratio, the ratio of assets over Actuarial Liability, decreased from 78.4% last year to 71.5% as of June 30, 2016.
- The UAL is the excess of the System's Actuarial Liability over the Market Value of Assets. The System experienced an increase in the UAL from \$698.6 million to \$1,017.3 million, an increase of \$318.7 million.
- During the plan year ending June 30, 2016, the return on Plan assets was 1.30% on a market value basis - net of investment expenses and assuming mid-year external cashflows - as compared to the 7.50% assumption. This produced an actuarial asset loss of \$156.7 million.
- During the 2015-2016 plan year, the actuarial liabilities of the System increased less than expected. The experience gains were primarily due to lower salary increases than expected for returning members and lower COLA increases than expected for current retirees. Consequently, the System experienced a gain on the Actuarial Liability of \$35.8 million.
- Actual contributions made to the Plan were slightly more than expected by \$3.8 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, differences in the actual payroll for FYE 2016 than what was assumed in the previous valuation will cause the actual contributions to differ from the expected contributions.
- Administrative expenses were \$5.2 million compared to the assumed \$4.4 million, which produced a loss of about \$0.8 million

In aggregate, the System experienced a total loss of \$117.9 million from all sources combined.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

SECTION I – EXECUTIVE SUMMARY

- The employer contribution rate increased for FYE 2018. The primary reasons for the rate increase are the investment loss for FYE 2016 and changes to assumptions based on the most recent experience study.
- Overall participant membership increased compared to last year. There were 460 new hires and rehires during 2015-2016, and the total active population increased from 4,278 to 4,348. Total projected payroll increased from \$337.0 million to \$345.9 million.

Below we present Tables I-1 and I-2 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 presented and compared for both the current and prior plan year.

Table I-1				
Santa Barbara County Employees' Retirement System				
Summary of Key Valuation Results				
(in millions)				
Valuation Date	June 30, 2015	June 30, 2016		
Fiscal Year End	2017	2018	Relative %	
			Change	
Actuarial Liability	\$ 3,231.1	\$ 3,571.8	10.5%	
Market Value of Assets	<u>\$ 2,532.5</u>	<u>\$ 2,554.5</u>	0.9%	
Unfunded Actuarial Liability (UAL)	\$ 698.6	\$ 1,017.3	45.6%	
			Absolute	
			% Change	
Funding Ratio	78.4%	71.5%	-6.9%	
Net Employer Contribution Rate	36.55%	38.71%	2.16%	

The key results shown in Table I-1 indicate that because the Actuarial Liability increased by 10.5% and the Market Value of Assets increased by only 0.9%.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

SECTION I – EXECUTIVE SUMMARY

Table I-2 Membership Total				
Item	June 30, 2015	June 30, 2016	% Change	
Actives	4,278	4,348	1.6%	
Inactives	1,278	1,391	8.8%	
Members Receiving Benefits	4,030	4,171	3.5%	
Total Members	9,586	9,910	3.4%	
 Ratio of Retired Members to Active Members	 94.2%	 95.9%	 1.7%	
 Active Member Projected Payroll for FYE June 30, 2016 and 2017*	 \$ 336,982,208	 \$ 345,930,967	 2.7%	
Average Pay per Active	\$ 78,771	\$ 79,561	1.0%	

* Based on valuation data projected for next fiscal year using a full year of salary increases.

Table I-3 Change in Unfunded Actuarial Liability	
Experience	in millions
Unfunded actuarial liability, 6/30/2015	\$ 698.6
 Expected change in unfunded actuarial liability	 \$ (15.0)
Unfunded increase due to assumption changes	215.8
Unfunded increase due to asset loss*	153.7
Unfunded decrease due to liability gain	(35.8)
Total change in unfunded actuarial liability	\$ 318.7
 Unfunded actuarial liability, 6/30/2016	 \$ 1,017.3

* Includes loss due to expense and gain due to contributions being more than expected.

Changes in UAL

The Unfunded Actuarial Liability (UAL) for SBCERS increased by \$318.7 million, from \$698.6 million to \$1,017.3 million. Table I-3 above presents the specific components of the change in the UAL.

We see in Table I-3 that the asset returns lower than the assumed rate of 7.50% and the expense loss - offset slightly by the higher-than-anticipated contribution - increased the UAL by \$153.7 million, the liability experience reduced the UAL by \$35.8 million, and changes in assumptions increased the UAL by \$215.8 million.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

SECTION I – EXECUTIVE SUMMARY

The expected change in the UAL due to the yearly amortization of the UAL balance (\$15.0 million) combined with the above UAL changes to produce an overall increase of \$318.7 million in the UAL last year.

Employer Contributions Comparison

Thus far, the experience of the 2015-16 plan year has been presented in terms of the UAL and funded ratio. Table I-4 below compares the net employer contribution rates from the prior year and its components. The overall net employer contribution rate increased by 2.16% for the June 30, 2016 valuation. The net employer normal cost increased by 0.65% and the amortization of the UAL increased by 1.51%.

Table I-4 Contributions by Components			
Valuation Year	2015	2016	
Effective for Fiscal Year End	FYE 2017	FYE 2018	Change
Gross Normal Cost %	21.83%	23.06%	1.23%
Employee Contributions	<u>5.19%</u>	<u>5.77%</u>	0.58%
Employer Normal Cost %	16.64%	17.29%	0.65%
Amortization of UAL%	19.91%	21.42%	1.51%
Net Employer Contribution Rate: (3 + 4)	36.55%	38.71%	2.16%

SECTION I – EXECUTIVE SUMMARY

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

Table I-5			
Employer Contribution Reconciliation			
Item	Normal Cost	Amortization	Total
FYE 2017 Net Employer Contribution Rate	16.64%	19.91%	36.55%
Expected Change due to phase-in	0.00%	-0.57%	-0.57%
Change due to assumption changes	1.18%	1.35%	2.53%
Change due to asset loss	0.00%	0.87%	0.87%
Change due to PEPRA new hires	-0.59%	0.02%	-0.57%
Change due to demographic gains	0.06%	-0.22%	-0.16%
Change due to effect of payroll on amortization	0.00%	0.06%	0.06%
FYE 2018 Net Employer Contribution Rate	17.29%	21.42%	38.71%

A review of the changes in the employer contribution rate from the prior valuation reveals that asset experience as well as changes in the actuarial assumptions are the largest drivers of a net increase in the employer contribution rate of 2.16% of pay:

- Changes in actuarial assumptions increased the contribution rate by 2.53% of pay. The ultimate increase in the contribution rate is 7.15% after the 5-year phase in. Details on the impact of each assumption change can be seen in the experience study report; the assumption changes with the largest impact were the discount rate and mortality assumption changes.
- Asset experience produced an investment loss on a market basis, which increased the contribution rate by 0.87% of pay. The assets of the Plan returned 1.30% (net of investment expenses) on a market basis, lower than the assumed rate of 7.50%.
- PEPRA members are now about 20% of active member payroll. The average employee contribution rate continues to increase since 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 0.57% of pay decrease on the employer contribution rate.
- Demographic experience was favorable for a net decrease in cost of about 0.16% of pay.

The demographic experience of the Plan – including rates of retirement, death, disability, and termination – was better than predicted by the actuarial assumptions in aggregate, causing a decrease in cost. The primary factors contributing to this decrease were lower than expected Cost-of-Living Adjustments (COLAs) for current retirees, and lower than expected salary increases for returning members.

SECTION I – EXECUTIVE SUMMARY

- Payroll used to amortize unfunded liabilities was lower than expected by about \$2.8 million. As a result, unfunded actuarial liabilities were amortized over a smaller payroll base than expected, and the employer contribution rate increased by 0.06% of pay.
- PEPRAs are now about 20% of active member payroll. The average employee contribution rate continues to increase since PEPRAs have higher employee contribution rates than the retiring legacy members they replace. PEPRAs benefits are also lower than the legacy members' benefits. The impact of the increasing number of PEPRAs members was a 0.57% of pay decrease on the employer contribution rate.

Plan Risk

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

Table I-6	
Asset to Payroll Ratio as of June 30, 2016	
Active Member Payroll	\$345,930,967
Market Value of Assets	\$2,554,538,522
Ratio of Assets to Payroll	7.38
Ratio with 100% Funding	10.33

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 percentage 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 over seven 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 ten 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 for SBCERS. Suppose SBCERS'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 asset to payroll (738%), that means the loss in assets is about 126% of active payroll (738% of 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.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

SECTION I – EXECUTIVE SUMMARY

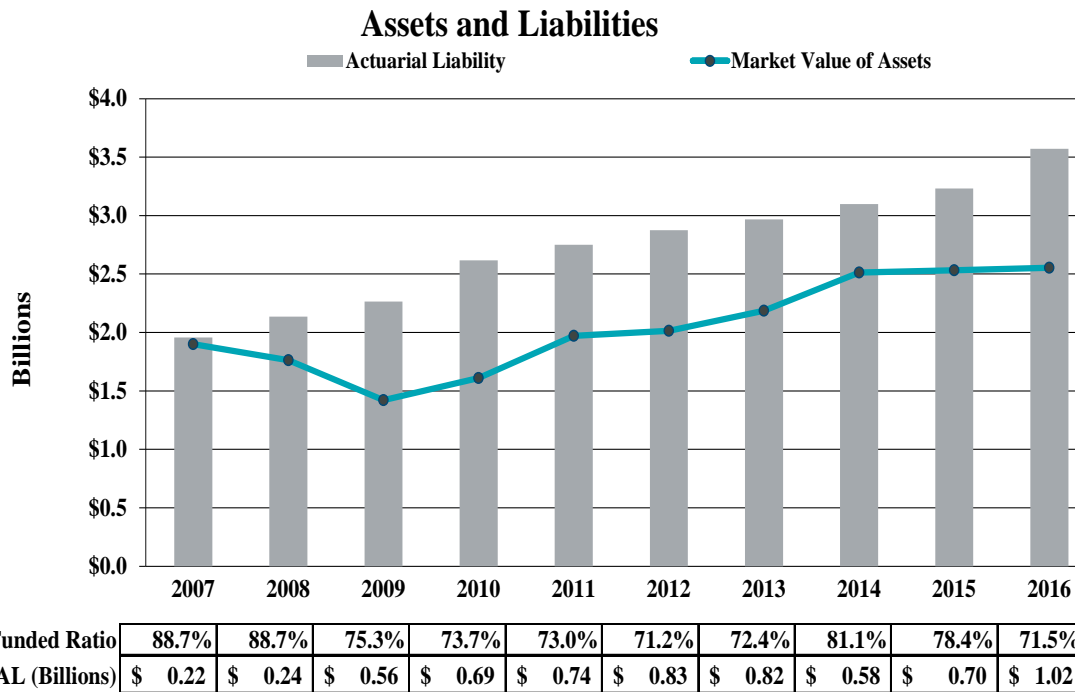
As the plan matures and becomes better funded, the ratio of assets to payroll will increase. When assets are 1033% of pay, the 10% loss discussed above will translate to a loss of over 176% of payroll. Therefore, the Plan is likely to become more sensitive to market variation in the future than it is today.

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 has declined from 88.7% in 2007 to 71.5% as of June 30, 2016, primarily as a result of the asset losses in 2008-2009 and changes in the actuarial assumptions. The decrease in the funded ratio in 2016 from 78.4% to 71.5% is due to assets losses for 2015-2016 as well as the assumption changes as discussed above.



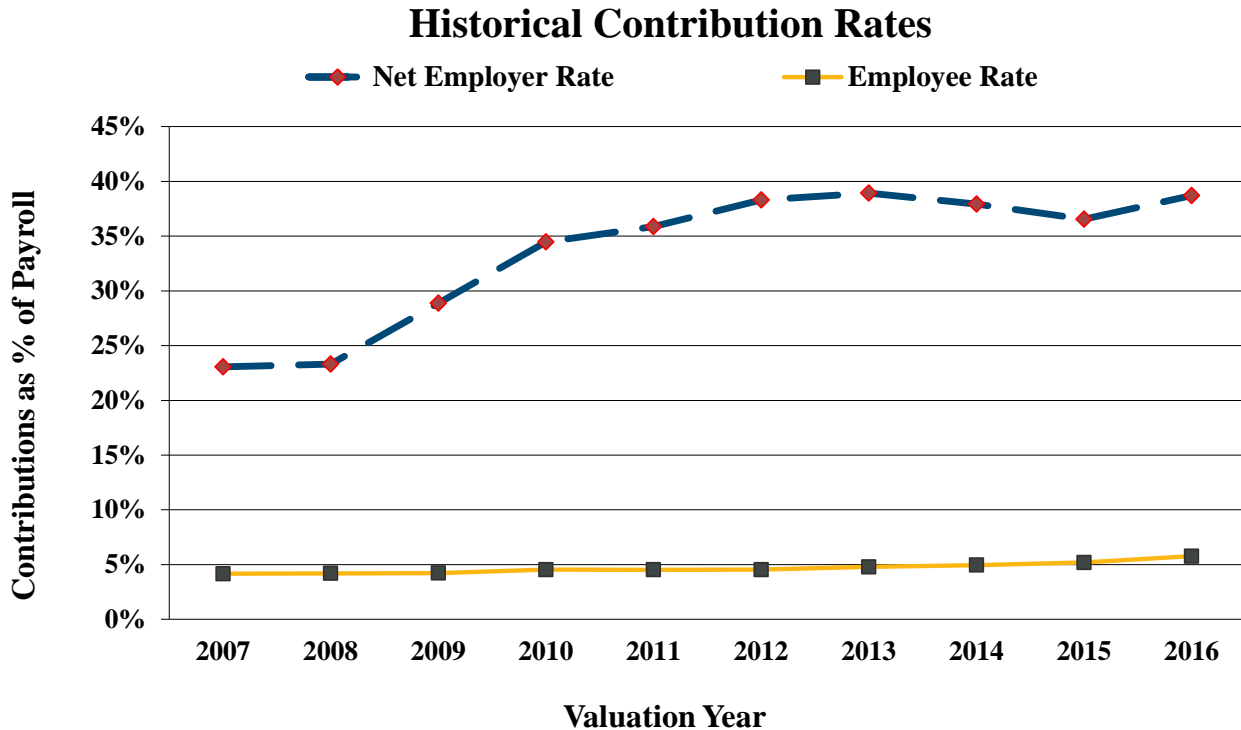
** As of 2014, Market Value of Assets is used to calculate the unfunded actuarial accrued liability and funded ratio.*

SECTION I – EXECUTIVE SUMMARY

Contribution Trends

In the chart below, we present the historical trends for the SBCERS contribution rates. The employer contribution rates rose steadily after 2008, as the investment losses from 2008-2009 were recognized in the Actuarial Value of Assets. However, for 2014, the employer rate decreased due to favorable asset experience and an asset method change in 2013-2014. 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 average employee contribution rates have stayed relatively stable, increasing slightly as the Plan's economic assumptions have changed. Average employee contribution rates will continue to increase as more new members under PEPRAs are hired.



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

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

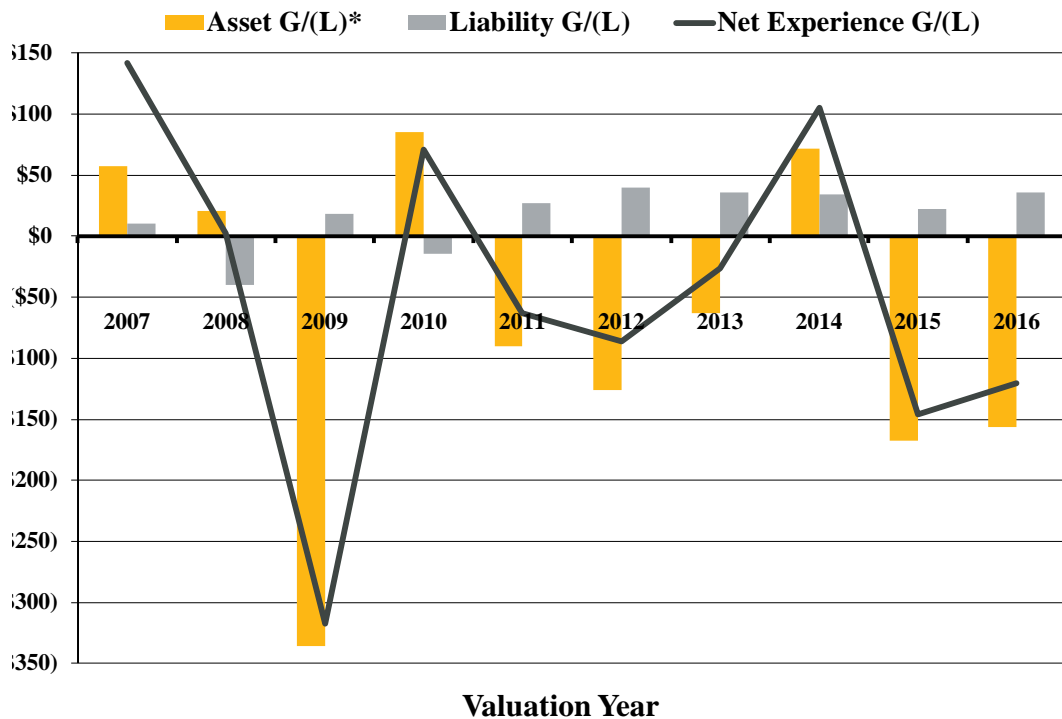
SECTION I – EXECUTIVE SUMMARY

include any changes in SBCERS' assets and liabilities attributable to changes to actuarial methods, assumptions or plan benefit changes.

The investment loss in 2008-2009 was by far the most significant gain or loss during the last eight 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 past six years, there has been a period of liability gains. The liability experience was more varied prior to this period.

Experience Gains and Losses



** Prior to 2015, based on actuarial value of assets which recognizes market gains/losses over a 5-year period.
After 2015, based on actual market gains/losses with no smoothing.*

SECTION I – EXECUTIVE SUMMARY

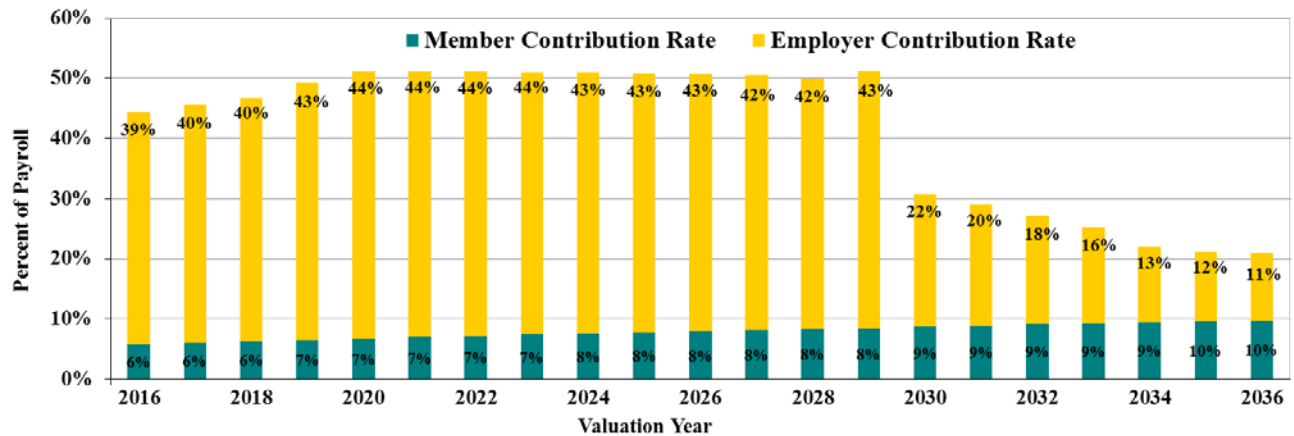
D. Future Expected Financial Trends

The analysis of projected financial trends is an important component of this valuation. In this section, we present our assessment of the implications of the June 30, 2016 valuation results in terms of benefit security (assets over liabilities). 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 following graph shows the expected employer contribution rate 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 contribution rate graph shows that employer contribution rates are expected to increase as the new assumptions are phased-in and then stay relatively stable over the next 14 years, as the remaining unfunded liability as of June 30, 2013 is being paid off over this period. There is a moderate decline projected in the employer normal cost rates, primarily due to the PEPRAs members becoming a larger proportion of the active member population over time. PEPRAs benefits are lower than the legacy plan benefits and PEPRAs employee contribution rates are greater than the legacy plans since members pay 50% of the normal cost rate.

Projection Of Contributions, 7.00% Return Each Year



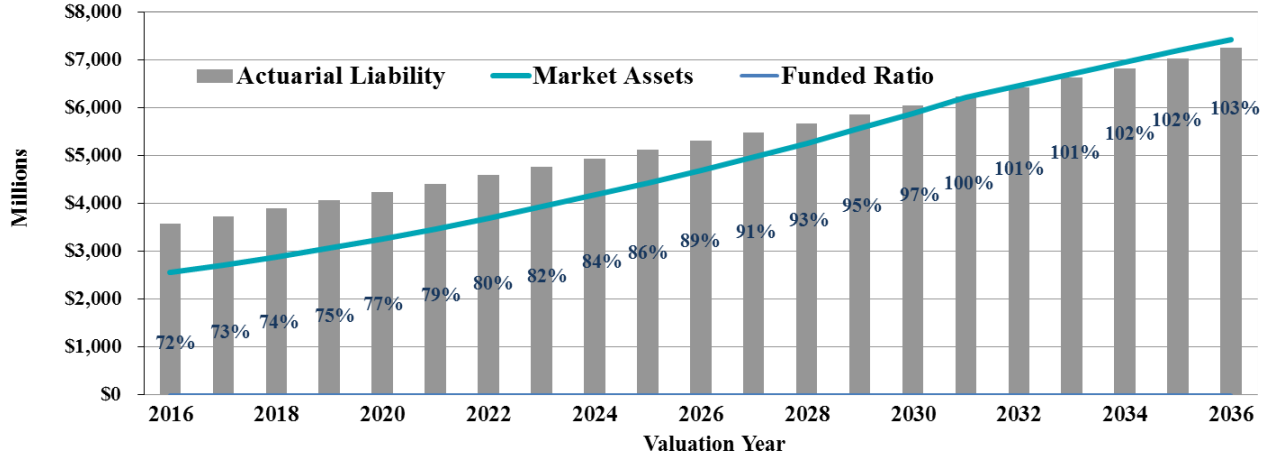
The employer contribution rate is approximately 39% of member payroll for the June 30, 2016 valuation; it is expected to increase gradually to about 44% over the next four years, and then remain around that level for the next nine years if all actuarial assumptions are met. After 2029, the total contribution rate is expected to drop significantly, when the remaining unfunded liability as of June 30, 2013 is fully paid.

Asset and Liability Projections:

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

SECTION I – EXECUTIVE SUMMARY

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 100% 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.

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, 2015 and June 30, 2016,
- 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**.

SECTION II – ASSETS

Disclosure

Only the Market Value of Assets is relevant for this actuarial valuation. It represents a snap-shot 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 new 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, 2015 and June 30, 2016.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

SECTION II – ASSETS

Table II-1				
Statement of Assets at Market Value				
Assets:	June 30, 2015		June 30, 2016	
Cash and Cash Equivalents	\$	8,286,972	\$	12,736,382
Receivables:				
Contributions Receivable		8,942,235		4,345,642
Other		0		0
Accrued Interest		1,878,128		2,062,079
Dividends		1,217,985		1,502,424
Security Sales		19,925,791		13,009,641
Total Receivables		<u>31,964,139</u>		<u>20,919,786</u>
Investments, at Market Value:				
Short Term Investments		50,317,875		72,624,655
Alternative/Private Equity		176,720,536		187,873,279
Domestic Equity		600,489,252		567,082,538
Domestic Bonds		439,625,455		486,328,787
International Equity		496,124,020		450,390,227
International Bonds		320,760,508		324,608,230
Real Estate		235,792,639		242,934,018
Real Assets / Real Return		203,866,844		225,252,499
Total Investments		<u>2,523,697,128</u>		<u>2,557,094,232</u>
Other Assets:				
Collateral Held for Securities Lent		37,899,441		63,804,521
Total Assets		<u>2,601,847,680</u>		<u>2,654,554,921</u>
Liabilities:				
Accounts Payable		359,807		364,874
Benefits Payable		9,200,260		9,668,161
Collateral Held for Securities Lent		37,899,441		63,804,521
Investment Manager Fees		967,533		1,441,940
Security Purchases		20,891,665		24,736,902
Total Liabilities		<u>69,318,706</u>		<u>100,016,398</u>
Market Value of Assets	\$	2,532,528,974	\$	2,554,538,523

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

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, 2015 and June 30, 2016.

Table II-2 Changes in Market Values		
<u>Additions</u>	Fiscal Year ending <u>June 30, 2015</u>	Fiscal Year ending <u>June 30, 2016</u>
Contributions		
Employer's Contribution	123,612,352	122,748,021
Members' Contributions	<u>16,622,138</u>	<u>18,311,646</u>
Total Contributions	140,234,490	141,059,666
Net Investment Income		
Net Appreciation/(Depreciation) in		
Fair Value of Investments	6,119,783	11,762,371
Interest	8,179,491	8,842,411
Dividends	13,091,624	18,601,843
Investment Expense	<u>(7,008,159)</u>	<u>(7,765,979)</u>
Net Investment Income	20,382,738	31,440,646
Securities Lending Income		
Securities Lent Income	72,105	110,877
Securities Lent Expense	<u>108,934</u>	<u>129,161</u>
Net Securities Lending Income	181,039	240,038
Miscellaneous Income		
Net Miscellaneous Income	276,510	1,119,721
Total Additions	161,074,777	173,860,071

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016

SECTION II – ASSETS

Table II-2		
Changes in Market Values (Continued)		
	Fiscal Year ending <u>June 30, 2015</u>	Fiscal Year ending <u>June 30, 2016</u>
<u>Deductions</u>		
Benefit payments	136,804,317	145,711,311
Refunds of Members' Contributions	<u>966,902</u>	<u>946,405</u>
Total Benefit Payments	137,771,219	146,657,716
Administrative & Other Expenses		
General Administrative Expenses	3,779,383	4,628,913
Actuary Fees	178,596	122,609
Fund Legal Fees	<u>446,363</u>	<u>441,284</u>
Total Administrative & Other Expenses	4,404,342	5,192,807
Total Deductions	142,175,561	151,850,523
Net increase (Decrease)	18,899,215	22,009,548
Net Assets Held in Trust for Pension Benefits		
Beginning of Year	2,513,629,759	2,532,528,974
End of Year	2,532,528,974	2,554,538,522
Expected Return	188,450,758	189,542,331
Actual Return	20,840,287	32,800,405
Expected Return	7.50%	7.50%
Approximate Return	0.83%	1.30%

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016

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 four reserves in Table II-3, as long as that account is negative.

Table II-3		
Allocation of Assets by Accounting Reserve Amounts for the Years Ended June 30, 2015 and June 30, 2016		
	FYE 2015	FYE 2016
1. Member Deposit Reserve	\$ 178,232,689	\$ 183,953,800
2. County and District Advance Reserve	799,985,559	851,356,624
3. Retired Member Reserve	2,013,137,380	2,167,810,353
4. Transferred Funds Reserve	<u>154,942,913</u>	<u>166,781,520</u>
	\$ 3,146,298,541	\$ 3,369,902,297
5. New Market Stabilization Reserve	0	0
6. Contra Tracking Account	(613,769,566)	(815,363,774)
Total Reserves	\$ 2,532,528,975	\$ 2,554,538,523

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 1992.

Table II-4 Net Return on Assets vs. Increase in Consumer Price Index		
Year Ended June 30	Net Return at Market Value	Increase in Consumer Price Index*
1992	18.5%	3.1%
1993	13.2%	3.0%
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%
25-Year Geometric Average	7.6%	2.3%

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

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016

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.

Table II-5 Allocation of Assets by Subgroup for June 30, 2016 (in thousands)				
	General	Safety	APCD	Total
1. Member Deposit Reserve	\$ 146,345	\$ 37,235	\$ 374	\$ 183,954
2. County and District Advance Reserve	559,523	286,594	5,240	851,357
3. Retired Member Reserve	1,210,894	919,458	37,458	2,167,810
4. Transferred Funds Reserve	<u>86,259</u>	<u>78,771</u>	<u>1,751</u>	<u>166,782</u>
5. Total Valuation Reserves (1 + 2 + 3 +4)	\$ 2,003,022	\$ 1,322,057	\$ 44,823	\$ 3,369,902
6. Percentage of Line 5, by Plan	59.44%	39.23%	1.33%	100.00%
7. Market Value of Assets				2,554,539
8. Allocated Market Value of Assets	\$ 1,518,381	\$ 1,002,180	\$ 33,978	\$ 2,554,539

SECTION III – LIABILITIES

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

- **Disclosure** of System liabilities at June 30, 2015 and June 30, 2016,
- 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, 2016

SECTION III – LIABILITIES

Table III-1						
Present Value of Future Benefits and Actuarial Liability						
(in thousands)						
Item	General	Safety	APCD	June 30, 2016 Total	June 30, 2015 Total	
Present Value of Future Benefits						
Actives	\$ 1,288,953	\$ 738,773	\$ 16,803	\$ 2,044,529	\$ 1,862,929	
Terminated Vested	107,364	30,632	3,055	141,051	125,636	
Retirees	1,033,931	695,659	28,970	1,758,560	1,577,280	
Disabled	40,692	80,345	0	121,037	111,702	
Beneficiaries	66,155	54,044	2,026	122,225	112,357	
Total SBCERS	\$ 2,537,094	\$ 1,599,453	\$ 50,855	\$ 4,187,402	\$ 3,789,905	
Actuarial Liability						
Total Present Value of Benefits	\$ 2,537,094	\$ 1,599,453	\$ 50,855	\$ 4,187,402	\$ 3,789,905	
Present Value of Future Normal Costs						
Employer Portion	265,489	179,056	3,234	447,779	455,801	
Employee Portion	110,046	55,679	2,100	167,825	102,970	
Actuarial Liability	\$ 2,161,559	\$ 1,364,718	\$ 45,521	\$ 3,571,798	\$ 3,231,134	
Market Value of Assets	\$ 1,518,381	\$ 1,002,179	\$ 33,979	\$ 2,554,539	\$ 2,532,529	
Funded Ratio	70.2%	73.4%	74.6%	71.5%	78.4%	
Unfunded Actuarial Liability/(Surplus)	\$ 643,178	\$ 362,539	\$ 11,542	\$ 1,017,259	\$ 698,605	

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, 2016

SECTION III – LIABILITIES

Table III-2	
Development of 2016 Experience Gain/(Loss)	
(in millions)	
Item	Cost
1. Unfunded Actuarial Liability (UAL) at June 30, 2015	\$ 698.6
2. Middle of year actuarial liability payment	(65.0)
3. Interest to end of year on 1 and 2	50.0
4. Increase in Actuarial Liability due to assumption changes	<u>215.8</u>
5. Expected UAL at June 30, 2016 (1+2+3+4)	\$ 899.4
6. Actual Unfunded Liability at June 30, 2016	<u>1,017.3</u>
7. Net Gain/(Loss): (4 - 5)	\$ (117.9)
8. Portion of net gain/(loss) due to:	
a. Investment experience loss	\$ (156.7)
b. Salary increases less than expected	19.1
c. Retiree COLAs less than expected	31.2
d. Inactive mortality loss	(2.4)
e. Retirement loss	(2.3)
f. Termination loss	(2.7)
g. New entrant loss	(3.1)
h. Other experience	<u>(1.0)</u>
i. Total gain/(loss)	\$ (117.9)

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 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 12 remaining years and the outstanding Unfunded Actuarial Liability as of June 30, 2013 over a closed period with 14 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, 2016

SECTION IV – CONTRIBUTIONS

Table IV-1 Development of the Net Employer Contribution Rate as of June 30, 2016 for FYE 2018					
	June 30, 2016				June 30, 2015
	General	Safety	APCD	COMPOSITE	COMPOSITE
1. Total Normal Cost Rate	19.70%	32.63%	20.29%	23.06%	21.83%
2. Member Contribution Rate	<u>5.38%</u>	<u>6.84%</u>	<u>7.20%</u>	<u>5.77%</u>	<u>5.19%</u>
3. Employer Normal Cost Rate (1-2)	14.32%	25.79%	13.09%	17.29%	16.64%
4. UAL Amortization	<u>18.21%</u>	<u>30.16%</u>	<u>28.57%</u>	<u>21.42%</u>	<u>19.91%</u>
5. Net Employer Contribution Rate (3+4)	32.53%	55.95%	41.66%	38.71%	36.55%

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, 2016 actuarial valuation, and has been applied to both the Member and Employer Rates.

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016

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 21.42% as a percentage of pay, which is not the sum of the individual amortization bases, since the Safety Plan 6 UAL of 3.98% is paid only for members under Safety Plan 6. Once the recent gain/loss and assumption bases are fully phased-in, the total UAL payment of the System will be 28.71% of pay.

Table IV-2 Development of Amortization Payment For the June 30, 2016 Actuarial Valuation									
Type of Base	Date Established	Initial Amount	Initial Amortization Years	June 30, 2016 Outstanding Balance	Remaining Amortization Years	Current Phase-In/Out Percentage	Amortization Amount	% of Pay**	% of Pay After Phase-In**
1. Safety Plan 6 Base*	6/30/2007	\$ 12,800,000	15	\$ 13,277,538	12	N/A	\$ 1,399,215	3.98%	3.98%
2. Remaining UAL	6/30/2013	803,940,900	17	773,836,936	14	N/A	72,386,218	21.64%	21.64%
3. (Gain)/Loss Base	6/30/2014	(227,291,825)	19	(248,462,824)	17	60%	(13,980,228)	-4.18%	-6.97%
4. (Gain)/Loss Base	6/30/2015	137,382,857	19	144,957,242	18	40%	5,443,623	1.63%	4.07%
5. (Gain)/Loss Base	6/30/2016	117,812,662	19	117,812,662	19	20%	2,255,503	0.67%	3.37%
6. Assumption Changes	6/30/2016	215,838,077	19	<u>215,838,077</u>	19	20%	<u>4,132,183</u>	1.24%	6.18%
Total				\$1,017,259,631			\$71,636,514	21.42%	28.71%

* In 2011, the outstanding balance was re-amortized over a closed 17-year period.

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

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

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. The amortization payment for this separate base is applied only to the payroll of the Safety Plan 6 members. Beginning with the 2011 actuarial valuation, the outstanding balance of the Safety Plan 6 UAL was to be amortized over a closed 17-year period; 12 years are now remaining. Table IV-3 contains the details of the calculations of the Safety UAL rates for the Plan 6 members.

Table IV-3	
Development of Safety UAL Amortization Rates	
(Excluding explicit load for anticipated administrative expenses)	
June 30, 2016 Plan 6 Layer	\$ 13,277,538
Twelve year amortization factor	0.105382
Safety Plan 6 payroll	\$ 36,367,981
Middle of year payment	1,399,215
Extra Plan 6 UAL Amortization Rate	3.85%
Safety UAL less Extra Plan 6	\$ 349,261,058
Middle of year payment	24,845,995
Total Safety Payroll	89,989,571
UAL Rate without Extra Plan 6	27.61%
UAL Rate - Plan 6	31.46%

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016

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, 2016 for FYE 2018								
	5A	5B	5C	Plan 2	Plan 7	PEPRA		Total
						2% COLA	3% COLA	
Current Year								
A. Basic Employer Normal Cost Rate	10.65%	10.14%	11.95%	4.25%	11.95%	6.87%	7.87%	10.29%
B. COLA Normal Cost Rate	<u>4.46%</u>	<u>5.39%</u>	<u>4.86%</u>	<u>0.00%</u>	<u>3.23%</u>	<u>1.38%</u>	<u>2.20%</u>	<u>4.03%</u>
C. Employer Normal Cost Rate	15.11%	15.53%	16.81%	4.25%	15.18%	8.25%	10.07%	14.32%
D. Basic UAL Contribution Rate	12.95%	12.95%	12.95%	12.95%	12.95%	12.95%	12.95%	12.95%
E. COLA UAL Contribution Rate	<u>5.26%</u>	<u>5.26%</u>	<u>5.26%</u>	<u>5.26%</u>	<u>5.26%</u>	<u>5.26%</u>	<u>5.26%</u>	<u>5.26%</u>
F. UAL Contribution Rate	18.21%	18.21%	18.21%	18.21%	18.21%	18.21%	18.21%	18.21%
G. Total June 30, 2016 Contribution Rate (C+F)	33.32%	33.74%	35.02%	22.46%	33.39%	26.46%	28.28%	32.53%
Prior Year								
A. Basic Employer Normal Cost Rate	9.80%	9.46%	11.00%	2.86%	10.53%	6.36%		9.75%
B. COLA Normal Cost Rate	<u>4.09%</u>	<u>5.02%</u>	<u>4.47%</u>	<u>0.00%</u>	<u>2.86%</u>	<u>1.26%</u>		<u>3.93%</u>
C. Employer Normal Cost Rate	13.89%	14.48%	15.47%	2.86%	13.39%	7.62%		13.68%
D. Basic UAL Contribution Rate	12.02%	12.02%	12.02%	12.02%	12.02%	12.02%		12.02%
E. COLA UAL Contribution Rate	<u>4.98%</u>	<u>4.98%</u>	<u>4.98%</u>	<u>4.98%</u>	<u>4.98%</u>	<u>4.98%</u>		<u>4.98%</u>
F. UAL Contribution Rate	17.00%	17.00%	17.00%	17.00%	17.00%	17.00%		17.00%
G. Total June 30, 2015 Contribution Rate (C+F)	30.89%	31.48%	32.47%	19.86%	30.39%	24.62%		30.68%

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016

SECTION IV – CONTRIBUTIONS

Table IV-5 Development of the Safety Net Employer Contribution Rate as of June 30, 2016 for FYE 2018							
	4A	4B	4C	6A	6B	PEPRA	Total
Current Year							
A. Basic Employer Normal Cost Rate	18.47%	16.42%	17.30%	20.89%	19.86%	10.69%	17.59%
B. COLA Normal Cost Rate	<u>8.20%</u>	<u>9.38%</u>	<u>8.26%</u>	<u>9.24%</u>	<u>9.62%</u>	<u>3.77%</u>	<u>8.20%</u>
C. Employer Normal Cost Rate	26.67%	25.80%	25.56%	30.13%	29.48%	14.46%	25.79%
D. Basic UAL Contribution Rate	19.01%	19.01%	19.01%	21.66%	21.66%	19.01%	20.08%
E. COLA UAL Contribution Rate	<u>9.54%</u>	<u>9.54%</u>	<u>9.54%</u>	<u>10.87%</u>	<u>10.87%</u>	<u>9.54%</u>	<u>10.08%</u>
F. UAL Contribution Rate	28.55%	28.55%	28.55%	32.53%	32.53%	28.55%	30.16%
G. Total June 30, 2016 Contribution Rate (C+F)	55.22%	54.35%	54.11%	62.66%	62.01%	43.01%	55.95%
Prior Year							
A. Basic Employer Normal Cost Rate	17.34%	15.25%	16.36%	19.25%	18.73%	10.05%	16.89%
B. COLA Normal Cost Rate	<u>7.75%</u>	<u>8.76%</u>	<u>7.79%</u>	<u>8.57%</u>	<u>9.01%</u>	<u>3.55%</u>	<u>7.88%</u>
C. Employer Normal Cost Rate	25.09%	24.01%	24.15%	27.82%	27.74%	13.60%	24.77%
D. Basic UAL Contribution Rate	17.22%	17.22%	17.22%	19.54%	19.54%	17.22%	18.24%
E. COLA UAL Contribution Rate	<u>8.77%</u>	<u>8.77%</u>	<u>8.77%</u>	<u>9.96%</u>	<u>9.96%</u>	<u>8.77%</u>	<u>9.29%</u>
F. UAL Contribution Rate	25.99%	25.99%	25.99%	29.50%	29.50%	25.99%	27.53%
G. Total June 30, 2015 Contribution Rate (C+F)	51.08%	50.00%	50.14%	57.32%	57.24%	39.59%	52.30%

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016

SECTION IV – CONTRIBUTIONS

Table IV-6 Development of the APCD Net Employer Contribution Rate as of June 30, 2016 for FYE 2018				
	Plan 1	Plan 2	PEPRA	Total
Current Year				
A. Basic Employer Normal Cost Rate	10.99%	8.94%	5.71%	8.72%
B. COLA Normal Cost Rate	<u>4.79%</u>	<u>5.45%</u>	<u>1.20%</u>	<u>4.37%</u>
C. Employer Normal Cost Rate	15.78%	14.39%	6.91%	13.09%
D. Basic UAL Contribution Rate	20.57%	20.57%	20.57%	20.57%
E. COLA UAL Contribution Rate	<u>8.00%</u>	<u>8.00%</u>	<u>8.00%</u>	<u>8.00%</u>
F. UAL Contribution Rate	28.57%	28.57%	28.57%	28.57%
G. Total June 30, 2016 Contribution Rate (C+F)	44.35%	42.96%	35.48%	41.66%
Prior Year				
A. Basic Employer Normal Cost Rate	10.12%	8.66%	5.15%	8.39%
B. COLA Normal Cost Rate	<u>4.41%</u>	<u>5.01%</u>	<u>1.06%</u>	<u>4.15%</u>
C. Employer Normal Cost Rate	14.53%	13.67%	6.21%	12.54%
D. Basic UAL Contribution Rate	18.17%	18.17%	18.17%	18.17%
E. COLA UAL Contribution Rate	<u>7.15%</u>	<u>7.15%</u>	<u>7.15%</u>	<u>7.15%</u>
F. UAL Contribution Rate	25.32%	25.32%	25.32%	25.32%
G. Total June 30, 2015 Contribution Rate (C+F)	39.85%	38.99%	31.53%	37.86%

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016

SECTION IV – CONTRIBUTIONS

Table IV-7				
Development of the PEPRA Member and Net Employer Contribution Rates				
as of June 30, 2016 for FYE 2018				
	General			
	2% COLA	3% COLA	Safety	APCD
Current Year				
Basic Member Contribution Rate	6.87%	7.87%	10.69%	5.71%
COLA Member Contribution Rate	<u>1.38%</u>	<u>2.20%</u>	<u>3.77%</u>	<u>1.20%</u>
Member Contribution Rate	8.25%	10.07%	14.46%	6.91%
Basic Employer Normal Cost Rate	6.87%	7.87%	10.69%	5.71%
COLA Employer Normal Cost Rate	<u>1.38%</u>	<u>2.20%</u>	<u>3.77%</u>	<u>1.20%</u>
Employer Normal Cost Rate	8.25%	10.07%	14.46%	6.91%
Basic UAL Contribution Rate	12.95%	12.95%	19.01%	20.57%
COLA UAL Contribution Rate	<u>5.26%</u>	<u>5.26%</u>	<u>9.54%</u>	<u>8.00%</u>
Employer UAL Contribution Rate	18.21%	18.21%	28.55%	28.57%
Employer Contribution Rate	26.46%	28.28%	43.01%	35.48%
Prior Year				
Basic Member Contribution Rate	6.37%		10.05%	5.15%
COLA Member Contribution Rate	<u>1.26%</u>		<u>3.55%</u>	<u>1.06%</u>
Member Contribution Rate	7.63%		13.60%	6.21%
Basic Employer Normal Cost Rate	6.37%		10.05%	5.15%
COLA Employer Normal Cost Rate	<u>1.26%</u>		<u>3.55%</u>	<u>1.06%</u>
Employer Normal Cost Rate	7.63%		13.60%	6.21%
Basic UAL Contribution Rate	11.66%		16.38%	17.77%
COLA UAL Contribution Rate	<u>4.83%</u>		<u>8.35%</u>	<u>7.00%</u>
Employer UAL Contribution Rate	16.49%		24.73%	24.77%
Employer Contribution Rate	24.12%		38.33%	30.98%

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

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 is effective for periods beginning after June 15, 2013 (first effective June 30, 2014 for the Plan) and GASB 68 is effective for fiscal years beginning after June 15, 2014 (first effective for the fiscal year July 1, 2014 to June 30, 2015 for the Employers). The updated disclosures needed to satisfy the GASB requirements can be found in the SBCERS GASB 67/68 Report as of June 30, 2016.

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

Table V-1 SOLVENCY TEST (dollars in thousands)									
Valuation Date	(A)		(B)		(C)		Portion of Actuarial Liabilities Covered by Reported Assets		
	Active Member Contributions	Retirees And Beneficiaries	Remaining Active Members' Liabilities	Reported Assets *	(A)	(B)	(C)		
June 30, 2016	\$ 183,954	\$ 2,142,873	\$ 1,244,920	\$ 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 **	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	165,774	1,559,716	1,024,324	2,007,859	100%	100%	28%		

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

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

The solvency test shows the portion of actuarial liabilities for active member contributions, inactive members, and the employer-financed portion of the active members that are covered by the Actuarial Value of Assets. As of June 30, 2016, liabilities are discounted at the assumed valuation interest rate of 7.00%.

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016

SECTION V – COMPREHENSIVE ANNUAL FINANCIAL REPORTING INFORMATION

Table V-II
ACTUARIAL ANALYSIS OF FINANCIAL EXPERIENCE
(dollars in millions)

Unfunded Actuarial Liability (UAL) as of June 30, 2015	\$ 698.6
Expected Change in UAL	(15.0)
Actuarial (Gains) or Losses During the Year	
Asset Return (Greater) or Less than Expected	\$ 156.7
New Entrants	3.1
Salary Increases Greater or (Less) than Expected	(19.1)
Changes in Assumptions and Methodology	215.8
All Other (Including Demographic Experience)	<u>(22.9)</u>
Total Changes	\$ 318.6
Unfunded Actuarial Liability (UAL) as of June 30, 2016	\$ 1,017.2

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016

APPENDIX A – MEMBERSHIP INFORMATION

The data for this valuation was provided by the System staff as of June 30, 2016. 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, 2015 and 2016	2015	2016
Members Now Receiving Benefits		
Service Retirement	3,275	3,398
Disability Retirement	244	243
Beneficiaries and Survivors	511	530
Subtotal	4,030	4,171
Active Members		
Active Vested Members	3,244	3,105
Active Nonvested Members	1,034	1,243
Subtotal	4,278	4,348
Deferred Members	1,284	1,391
Total Membership	9,592	9,910

Schedule of Average Benefit Payments

June 30, 2016	<u>Years of Retirement</u>					
	0-9	10-14	15-19	20-24	25-29	30+
Average Monthly Benefit	\$3,270	\$3,079	\$2,633	\$2,441	\$2,421	\$1,850
Average Annual Benefit	39,240	36,948	31,596	29,292	29,052	22,200
Number of Active Retirees	2,170	832	496	271	185	217

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

APPENDIX A – MEMBERSHIP INFORMATION

Schedule of Active Member Valuation Data

Valuation Date	Plan	Active Members	Annual Salary*	Average*	% Increase in Average Salary
June 30, 2016	General	3,394	\$ 241,729,055	71,222	1.63%
	Safety	916	86,041,656	93,932	1.60%
	APCD	38	2,979,643	78,412	1.84%
	Total	4,348	\$ 330,750,354	76,070	1.41%

* Based on salary data provided in the June 30, 2016 valuation data for FYE 2016.

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*	Number	Annual Allowance	Number	Annual Allowance		
2007	203	\$ 7,348,140	-70	\$ (1,165,047)	2,812	\$ 70,763,105	9.6%	\$ 25,165
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**	\$ 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

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

** 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, 2016

APPENDIX A – MEMBERSHIP INFORMATION

SBCERS Membership - Active Members as of June 30, 2016

General Members	Count	Annual Salary*	Average Age	Average Monthly Salary*	Average Vesting Service
Plan 2	9	\$612,000	57.3	\$5,667	28.3
Plan 5A	559	\$44,516,000	55.2	\$6,636	25.3
Plan 5B	373	\$38,500,000	48.7	\$8,601	12.6
Plan 5C	1,445	\$96,513,000	47.2	\$5,566	12.6
Plan 7	99	\$7,679,000	39.5	\$6,464	7.0
PEPRA	<u>909</u>	<u>\$53,910,000</u>	36.7	\$4,942	1.4
Total	3,394	\$241,729,000	45.7	\$5,935	11.6
APCD Members					
Plan 1	8	\$696,000	56.0	\$7,250	26.8
Plan 2	20	\$1,643,000	40.5	\$6,846	8.5
PEPRA	<u>10</u>	<u>\$641,000</u>	30.3	\$5,342	1.6
Total	38	\$2,980,000	41.1	\$6,535	10.5
Safety Members					
Plan 4A	57	\$6,896,000	52.8	\$10,082	23.1
Plan 4B	13	\$1,626,000	50.6	\$10,423	22.8
Plan 4C	333	\$31,685,000	43.2	\$7,929	14.0
Plan 6A	71	\$7,749,000	51.2	\$9,095	26.5
Plan 6B	295	\$27,193,000	42.4	\$7,682	12.7
PEPRA	<u>147</u>	<u>\$10,893,000</u>	32.1	\$6,175	1.7
Total	916	\$86,042,000	42.5	\$7,828	13.2
Total Active Members	4,348	\$330,751,000	44.9	\$6,339	11.9

* Based on salary data provided in the June 30, 2016 valuation data for FYE 2016.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

APPENDIX A – MEMBERSHIP INFORMATION

SBCERS Membership - Schedule of Active Member Valuation Data

Valuation Date	Plan Type	Count	Annual Salary*	Average Annual Salary*	Increase in Average Salary
June 30, 2006	General	3,658	\$214,405,000	\$58,613	4.60%
	Safety	<u>982</u>	<u>\$72,977,000</u>	\$74,315	2.90%
	Total	4,640	\$287,382,000	\$61,936	4.20%
June 30, 2007	General	3569	\$214,717,000	\$60,162	2.60%
	APCD	53	\$3,940,000	\$74,340	N/A
	Safety	<u>1,003</u>	<u>\$75,506,000</u>	\$75,280	1.30%
	Total	4,625	\$294,163,000	\$63,603	2.70%
June 30, 2008	General	3,552	\$226,426,000	\$63,746	6.00%
	APCD	48	\$3,608,000	\$75,167	1.10%
	Safety	<u>1,006</u>	<u>\$77,230,000</u>	\$76,769	2.00%
	Total	4,606	\$307,264,000	\$66,710	4.90%
June 30, 2009	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%
June 30, 2010	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%
June 30, 2011	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%
June 30, 2012	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%
June 30, 2013	General	3,161	\$216,968,000	\$68,639	-2.11%
	APCD	43	\$3,344,000	\$77,767	2.94%
	Safety	<u>904</u>	<u>\$81,004,000</u>	\$89,606	0.17%
	Total	4,108	\$301,316,000	\$73,349	-1.39%
June 30, 2014	General	3,226	\$221,733,000	\$68,733	0.14%
	APCD	41	\$3,335,000	\$81,341	4.60%
	Safety	<u>910</u>	<u>\$83,659,000</u>	\$91,933	2.60%
	Total	4,177	\$308,727,000	\$73,911	0.77%
June 30, 2015	General	3,307	\$231,757,487	\$70,081	1.96%
	APCD	40	\$3,079,706	\$76,993	-5.35%
	Safety	<u>931</u>	<u>\$86,077,154</u>	\$92,457	0.57%
	Total	4,278	\$320,914,347	\$75,015	1.49%
June 30, 2016	General	3,394	\$241,729,055	\$71,222	1.63%
	APCD	38	\$2,979,643	\$78,412	1.84%
	Safety	<u>916</u>	<u>\$86,041,656</u>	\$93,932	1.60%
	Total	4,348	\$330,750,354	\$76,070	1.41%

* 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, 2016

APPENDIX A – MEMBERSHIP INFORMATION

SBCERS Membership – Deferred Vested Members as of June 30, 2016

General Members	Count	Average Age
Plan 2	23	56.9
Plan 5A	199	55.1
Plan 5B	450	48.4
Plan 5C	311	43.5
Plan 7	33	37.1
PEPRA	137	36.4
Total	<u>1153</u>	46.7
APCD Members		
Plan 1	8	54.3
Plan 2	8	44.3
PEPRA	2	38.0
Total	<u>18</u>	48.0
Safety Members		
Plan 4A	7	48.6
Plan 4B	53	48.4
Plan 4C	35	41.8
Plan 6A	36	53.0
Plan 6B	56	38.8
PEPRA	33	32.8
Total	<u>220</u>	42.7
Total Deferred Vested	1,391	46.0

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016

APPENDIX A – MEMBERSHIP INFORMATION

SBCERS Membership – Retired Members as of June 30, 2016

General Members	Count	Average Current Age	Average Age at Retirement*	Monthly Allowances	Average Monthly Benefit
Plan 1	859	81.8	58.5	\$1,454,000	\$1,693
Plan 2	58	69.9	60.8	\$36,000	\$621
Plan 3	6	63.7	56.4	\$6,000	\$1,071
Plan 4A	190	74.2	59.6	\$435,000	\$2,289
Plan 4B	5	73.4	59.0	\$1,000	\$272
Plan 5A	1,463	66.8	59.3	\$4,699,000	\$3,212
Plan 5B	276	66.6	60.9	\$425,000	\$1,539
Plan 5C	273	64.2	61.8	\$481,000	\$1,762
Plan 7**	1	66.0	63.2	\$0	\$250
Total	<u>3,131</u>	71.2	59.5	<u>\$7,537,000</u>	\$2,407
APCD Members					
Plan 1	50	64.3	58.0	\$160,000	\$3,197
Plan 2	10	67.0	62.3	\$19,000	\$1,922
Total	<u>60</u>	64.8	58.8	<u>\$179,000</u>	\$2,983
Safety Members					
Plan 1	294	75.2	55.1	\$1,228,000	\$4,177
Plan 2	21	73.0	54.6	\$48,000	\$2,286
Plan 3	3	62.7	55.3	\$13,000	\$4,327
Plan 4A	262	64.6	55.9	\$1,725,000	\$6,584
Plan 4B	99	65.6	56.6	\$279,000	\$2,815
Plan 4C	64	62.0	59.4	\$202,000	\$3,153
Plan 4D	2	61.0	63.0	\$7,000	\$3,579
Plan 6A	201	58.4	53.5	\$1,156,000	\$5,753
Plan 6B	34	57.0	56.0	\$100,000	\$2,929
Total	<u>980</u>	66.3	55.5	<u>\$4,757,000</u>	\$4,854
Total Retired Members	4,171	69.9	58.6	\$12,473,000	\$2,990

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

** Monthly benefit is \$250.

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016

APPENDIX A – MEMBERSHIP INFORMATION

SBCERS Membership – Retired Members as of June 30, 2016

	Count	Monthly Allowances	Average Monthly Benefit
General Members			
Healthy	2,625	\$6,717,000	\$2,559
Disabled	124	263,000	2,121
Beneficiaries	382	557,000	1,458
Total	3,131	\$7,537,000	\$2,407
APCD Members			
Healthy	54	\$166,000	\$3,074
Disabled	0	0	0
Beneficiaries	6	13,000	2,167
Total	60	\$179,000	\$2,983
Safety Members			
Healthy	719	\$3,951,000	\$5,495
Disabled	119	442,000	3,714
Beneficiaries	142	364,000	2,563
Total	980	\$4,757,000	\$4,854
Total Retired Members	4,171	\$12,473,000	\$2,990

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

APPENDIX A – MEMBERSHIP INFORMATION

**Age & Service Distribution of Active Members by Count and Average Salary as of June 30, 2016
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	25	34	1	0	0	0	0	0	0	60
25-29	57	254	21	1	0	0	0	0	0	333
30-34	50	288	161	68	0	0	0	0	0	567
35-39	39	137	155	190	35	0	0	0	0	556
40-44	19	89	72	161	188	38	2	0	0	569
45-49	15	62	88	128	201	120	40	3	0	657
50-54	23	51	69	84	143	99	99	37	1	606
55-59	11	44	50	71	105	86	93	51	22	533
60-64	4	24	43	54	73	44	50	30	21	343
65 & Over	2	15	17	34	25	13	7	5	6	124
Total Count	245	998	677	791	770	400	291	126	50	4,348

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	\$46,087	\$55,097	\$79,821	\$0	\$0	\$0	\$0	\$0	\$0	\$51,755
25-29	52,010	56,667	65,821	53,614	0	0	0	0	0	56,438
30-34	58,892	61,450	70,766	75,432	0	0	0	0	0	65,547
35-39	63,707	61,159	70,983	76,734	82,815	0	0	0	0	70,762
40-44	60,563	65,563	70,800	80,222	86,001	81,845	70,774	0	0	78,065
45-49	66,159	70,739	76,847	81,399	85,616	86,628	90,528	84,727	0	82,251
50-54	84,314	68,829	81,612	73,369	84,499	83,283	90,301	92,236	85,746	82,525
55-59	77,513	79,821	85,185	81,780	79,822	82,362	89,690	98,832	74,230	84,258
60-64	70,022	71,353	90,575	82,028	78,540	86,395	87,338	92,071	83,270	83,759
65 & Over	81,723	63,635	89,612	84,242	76,324	85,885	96,277	77,754	107,023	82,541
Average Salary*	\$60,916	\$62,378	\$75,372	\$78,837	\$83,613	\$84,379	\$89,637	\$94,113	\$82,192	\$76,070

* Based on salary data provided in the June 30, 2016 valuation data for FYE 2016.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

APPENDIX A – MEMBERSHIP INFORMATION

**Age & Service Distribution of Active Members by Count and Average Salary as of June 30, 2016
General Members**

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	22	23	0	0	0	0	0	0	0	45
25-29	49	197	15	1	0	0	0	0	0	262
30-34	43	227	116	40	0	0	0	0	0	426
35-39	37	115	109	121	23	0	0	0	0	405
40-44	19	77	55	117	111	24	1	0	0	404
45-49	15	60	70	97	135	72	23	2	0	474
50-54	19	48	63	69	113	81	65	27	1	486
55-59	10	41	44	67	94	76	75	39	21	467
60-64	4	24	38	48	66	42	44	26	19	311
65 & Over	2	15	17	30	24	12	7	4	3	114
Total Count	220	827	527	590	566	307	215	98	44	3,394

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	\$44,406	\$48,820	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$46,662
25-29	49,916	52,556	58,724	53,614	0	0	0	0	0	52,419
30-34	57,762	57,299	63,653	64,711	0	0	0	0	0	59,772
35-39	63,852	58,474	63,722	68,257	71,679	0	0	0	0	64,050
40-44	60,563	63,983	64,506	73,747	75,552	70,916	49,190	0	0	70,275
45-49	66,159	69,848	74,381	78,120	78,564	74,638	76,002	72,273	0	75,612
50-54	83,758	68,153	80,247	70,401	80,353	78,634	79,340	80,345	85,746	77,443
55-59	72,395	79,039	82,228	81,783	78,069	80,271	82,735	92,745	71,969	81,016
60-64	70,022	71,353	87,266	79,959	78,102	86,284	86,374	90,453	83,182	82,502
65 & Over	81,723	63,635	89,612	82,673	75,911	85,479	96,277	74,203	63,570	80,093
Average Salary*	\$59,868	\$59,860	\$71,116	\$74,174	\$77,802	\$78,813	\$82,018	\$87,546	\$76,551	\$71,222

* Based on salary data provided in the June 30, 2016 valuation data for FYE 2016.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

APPENDIX A – MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Count and Average Salary as of June 30, 2016
Safety Members

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	3	9	1	0	0	0	0	0	0	13
25-29	8	51	5	0	0	0	0	0	0	64
30-34	7	60	40	27	0	0	0	0	0	134
35-39	2	20	43	68	12	0	0	0	0	145
40-44	0	12	16	44	77	14	1	0	0	164
45-49	0	2	17	31	66	48	17	1	0	182
50-54	4	2	5	14	30	18	31	10	0	114
55-59	1	3	6	4	11	9	16	11	1	62
60-64	0	0	5	6	4	2	5	4	2	28
65 & Over	0	0	0	4	1	1	0	1	3	10
Total Count	25	159	138	198	201	92	70	27	6	916

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	\$58,411	\$71,426	\$79,821	\$0	\$0	\$0	\$0	\$0	\$0	\$69,069
25-29	64,839	71,255	82,934	0	0	0	0	0	0	71,365
30-34	65,834	77,376	89,761	91,589	0	0	0	0	0	83,334
35-39	61,036	76,487	89,207	91,192	104,158	0	0	0	0	89,232
40-44	0	75,697	92,111	97,438	101,064	100,579	92,359	0	0	97,267
45-49	0	97,447	85,398	91,658	100,042	104,611	110,179	109,637	0	99,422
50-54	86,956	81,144	95,531	86,102	100,112	104,201	114,656	124,342	0	104,122
55-59	128,700	90,513	106,872	81,724	94,802	97,039	120,026	124,837	121,719	108,063
60-64	0	0	115,725	98,574	87,494	88,728	94,803	102,588	84,110	98,217
65 & Over	0	0	0	96,014	86,259	90,759	0	91,956	150,475	110,445
Average Salary*	\$70,135	\$75,385	\$90,898	\$92,477	\$100,084	\$102,681	\$113,060	\$119,577	\$123,561	\$93,932

* Based on salary data provided in the June 30, 2016 valuation data for FYE 2016.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

APPENDIX A – MEMBERSHIP INFORMATION

Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2016
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	6	1	0	0	0	0	0	0	7
30-34	0	1	5	1	0	0	0	0	0	7
35-39	0	2	3	1	0	0	0	0	0	6
40-44	0	0	1	0	0	0	0	0	0	1
45-49	0	0	1	0	0	0	0	0	0	1
50-54	0	1	1	1	0	0	3	0	0	6
55-59	0	0	0	0	0	1	2	1	0	4
60-64	0	0	0	0	3	0	1	0	0	4
65 & Over	0	0	0	0	0	0	0	0	0	0
Total Count	0	12	12	3	3	1	6	1	0	38

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	\$53,798	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$53,798
25-29	0	67,660	86,721	0	0	0	0	0	0	70,383
30-34	0	48,310	83,833	68,029	0	0	0	0	0	76,500
35-39	0	62,266	73,607	119,387	0	0	0	0	0	77,457
40-44	0	0	75,956	0	0	0	0	0	0	75,956
45-49	0	0	104,106	0	0	0	0	0	0	104,106
50-54	0	76,616	98,069	99,895	0	0	76,120	0	0	83,823
55-59	0	0	0	0	0	109,175	107,834	50,142	0	93,746
60-64	0	0	0	0	76,242	0	92,413	0	0	80,285
65 & Over	0	0	0	0	0	0	0	0	0	0
Average Salary*	\$0	\$63,584	\$83,736	\$95,770	\$76,242	\$109,175	\$89,407	\$50,142	\$0	\$78,412

* Based on salary data provided in the June 30, 2016 valuation data for FYE 2016.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

APPENDIX A – MEMBERSHIP INFORMATION

**Distribution of Retired Members by Age and Retirement Year as of June 30, 2016
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	2015-16		
Under 35	0	0	0	0	3	2	2	4	0	11	\$666
35-39	0	0	0	0	0	2	1	0	0	3	\$1,363
40-44	0	0	0	0	0	1	0	7	1	9	\$2,245
45-49	0	0	0	1	4	3	2	8	2	20	\$1,971
50-54	0	0	0	1	1	8	10	78	40	138	\$2,443
55-59	0	0	0	0	13	11	98	211	78	411	\$2,978
60-64	0	1	1	1	11	60	229	291	121	715	\$3,249
65-69	4	1	6	5	50	151	291	309	73	890	\$3,495
70-74	10	9	5	24	128	227	226	114	28	771	\$3,335
75-79	15	7	12	61	95	149	75	31	10	455	\$2,756
80-84	10	11	36	52	103	50	23	18	5	308	\$2,279
85-89	13	28	37	70	30	32	17	17	4	248	\$2,051
90-94	23	21	39	18	7	9	9	10	2	138	\$1,996
95-99	11	19	7	3	0	2	1	1	1	45	\$1,837
100 & Over	6	0	1	1	1	0	0	0	0	9	\$1,523
Total Count	92	97	144	237	446	707	984	1,099	365	4,171	
Avg Monthly Benefit	\$1,774	\$1,890	\$2,356	\$2,388	\$2,654	\$2,954	\$3,257	\$3,205	\$3,349	\$2,990	\$2,990

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

APPENDIX A – MEMBERSHIP INFORMATION

**Distribution of Retired Members by Age and Retirement Year as of June 30, 2016
General Members**

Age	Benefit Effective Date									Total Count	
	Pre-1980	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-16		
Under 35	0	0	0	0	3	2	1	2	0	8	\$501
35-39	0	0	0	0	0	2	1	0	0	3	\$1,363
40-44	0	0	0	0	0	0	0	3	2	5	\$1,158
45-49	0	0	0	1	2	2	2	1	2	10	\$1,079
50-54	0	0	0	1	1	4	3	28	32	69	\$1,206
55-59	0	0	0	0	8	8	55	87	72	230	\$1,672
60-64	0	0	1	1	9	43	146	158	151	509	\$2,328
65-69	2	0	4	4	39	95	226	235	109	714	\$3,088
70-74	0	2	2	13	71	154	197	88	34	561	\$2,713
75-79	3	1	8	45	63	130	66	25	10	351	\$2,282
80-84	6	11	26	42	93	47	21	11	7	264	\$2,082
85-89	10	24	34	68	27	28	16	11	8	226	\$1,944
90-94	18	21	39	18	7	8	9	7	2	129	\$1,994
95-99	9	19	7	3	0	2	1	1	1	43	\$1,686
100 & Over	6	0	1	1	1	0	0	0	0	9	\$1,523
Total Count	54	78	122	197	324	525	744	657	430	3,131	
Avg Monthly Benefit	\$1,292	\$1,625	\$2,059	\$1,982	\$1,807	\$2,239	\$2,630	\$2,754	\$2,728	\$2,407	\$2,407

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016

APPENDIX A – MEMBERSHIP INFORMATION

Distribution of Retired Members by Age and Retirement Year as of June 30, 2016
Safety Members

Age	Benefit Effective Date									Total Count	
	Pre-1980	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	2015-16		
Under 35	0	0	0	0	0	0	1	2	0	3	\$1,108
35-39	0	0	0	0	0	0	0	0	0	0	\$0
40-44	0	0	0	0	0	1	0	3	0	4	\$3,603
45-49	0	0	0	0	2	1	0	5	2	10	\$2,863
50-54	0	0	0	0	0	4	7	22	33	66	\$3,795
55-59	0	0	0	0	5	3	39	76	44	167	\$4,840
60-64	0	1	0	0	2	17	79	66	27	192	\$5,659
65-69	2	1	2	1	11	52	63	22	6	160	\$5,304
70-74	10	7	3	11	57	73	25	11	6	203	\$5,069
75-79	12	6	4	16	32	16	7	3	3	99	\$4,423
80-84	4	0	10	10	10	3	2	5	0	44	\$3,458
85-89	3	4	3	2	3	3	1	2	0	21	\$3,298
90-94	5	0	0	0	0	1	0	1	2	9	\$2,032
95-99	2	0	0	0	0	0	0	0	0	2	\$5,073
100 & Over	0	0	0	0	0	0	0	0	0	0	\$0
Total Count	38	19	22	40	122	174	224	218	123	980	
Avg Monthly Benefit	\$2,460	\$2,980	\$4,000	\$4,393	\$4,903	\$5,147	\$5,390	\$4,833	\$4,785	\$4,854	\$4,854

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

APPENDIX A – MEMBERSHIP INFORMATION

**Distribution of Retired Members by Age and Retirement Year as of June 30, 2016
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	2015-16			
Under 35	0	0	0	0	0	0	0	0	0	0	0	\$0
35-39	0	0	0	0	0	0	0	0	0	0	0	\$0
40-44	0	0	0	0	0	0	0	0	0	0	0	\$0
45-49	0	0	0	0	0	0	0	0	0	0	0	\$0
50-54	0	0	0	0	0	0	0	1	2	3	\$1,141	
55-59	0	0	0	0	0	0	4	6	4	14	\$2,216	
60-64	0	0	0	0	0	0	4	7	3	14	\$3,694	
65-69	0	0	0	0	0	4	2	5	5	16	\$3,601	
70-74	0	0	0	0	0	0	4	3	0	7	\$2,890	
75-79	0	0	0	0	0	3	2	0	0	5	\$3,004	
80-84	0	0	0	0	0	0	0	0	0	0	\$0	
85-89	0	0	0	0	0	1	0	0	0	1	\$52	
90-94	0	0	0	0	0	0	0	0	0	0	\$0	
95-99	0	0	0	0	0	0	0	0	0	0	\$0	
100 & Over	0	0	0	0	0	0	0	0	0	0	\$0	
Total Count	0	0	0	0	0	8	16	22	14	60		
Avg Monthly Benefit	\$0	\$0	\$0	\$0	\$0	\$2,196	\$2,592	\$3,129	\$3,657	\$2,984	\$2,983	

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016

APPENDIX A – MEMBERSHIP INFORMATION

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

	Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
June 30, 2015	4,278	1,284	69	175	3,275	511	9,592
New Entrants	449	1	0	0	0	0	450
Rehires	24	(13)	0	0	(1)	0	10
Duty Disabilities	(5)	0	0	5	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0
Retirements	(138)	(54)	0	0	189	4	1
Retirements from Safety with Misc Service	0	0	0	1	10	1	12
Vested Terminations	(82)	82	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	(1)	(3)	(2)	(25)	31	0
Non-Vested Terminations and Death without beneficiary	(118)	117	0	(2)	(50)	0	(53)
Transfers	(16)	16	0	0	0	0	0
Beneficiary Deaths	0	0	0	0	0	(19)	(19)
Domestic Relations Orders	0	0	0	0	0	3	3
Withdrawals Paid	(43)	(41)	0	0	0	0	(84)
Data Corrections	(1)	0	0	0	0	(1)	(2)
June 30, 2016	4,348	1,391	66	177	3,398	530	9,910

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016

APPENDIX A – MEMBERSHIP INFORMATION

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

	Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
June 30, 2015	3,307	1,066	58	65	2,534	370	7,400
New Entrants	386	1	0	0	0	0	387
Rehires	24	(13)	0	0	0	0	11
Duty Disabilities	(2)	0	0	2	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0
Retirements	(104)	(44)	0	0	145	3	0
Retirements from Safety with Misc Service	0	0	0	1	9	1	11
Vested Terminations	(67)	67	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	(1)	(2)	0	(22)	25	0
Non-Vested Terminations and Death without beneficiary	(100)	99	0	0	(41)	0	(42)
Transfers	(11)	13	0	0	0	0	2
Beneficiary Deaths	0	0	0	0	0	(17)	(17)
Domestic Relations Orders	0	0	0	0	0	1	1
Withdrawals Paid	(39)	(35)	0	0	0	0	(74)
Data Corrections	0	0	0	0	0	(1)	(1)
June 30, 2016	3,394	1,153	56	68	2,625	382	7,678

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016

APPENDIX A – MEMBERSHIP INFORMATION

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

	Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
June 30, 2015	931	202	11	110	688	136	2,078
New Entrants	59	0	0	0	0	0	59
Rehires	0	0	0	0	0	0	0
Duty Disabilities	(3)	0	0	3	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0
Retirements	(33)	(9)	0	0	42	1	1
Retirements from Safety with Misc Service	0	0	0	0	1	0	1
Vested Terminations	(14)	14	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	(1)	(2)	(3)	6	0
Non-Vested Terminations and Death without beneficiary	(15)	15	0	(2)	(9)	0	(11)
Transfers	(4)	3	0	0	0	0	(1)
Beneficiary Deaths	0	0	0	0	0	(2)	(2)
Domestic Relations Orders	0	0	0	0	0	1	1
Withdrawals Paid	(4)	(5)	0	0	0	0	(9)
Data Corrections	(1)	0	0	0	0	0	(1)
June 30, 2016	916	220	10	109	719	142	2,116

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016

APPENDIX A – MEMBERSHIP INFORMATION

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

	Actives	Deferred Members	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries	Total
June 30, 2015	40	16	0	0	53	5	114
New Entrants	4	0	0	0	0	0	4
Rehires	0	0	0	0	(1)	0	(1)
Duty Disabilities	0	0	0	0	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0
Retirements	(1)	(1)	0	0	2	0	0
Retirements from Safety with Misc Service	0	0	0	0	0	0	0
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	(3)	3	0	0	0	0	0
Transfers	(1)	0	0	0	0	0	(1)
Beneficiary Deaths	0	0	0	0	0	0	0
Domestic Relations Orders	0	0	0	0	0	1	1
Withdrawals Paid	0	(1)	0	0	0	0	(1)
Data Corrections	0	0	0	0	0	0	0
June 30, 2016	38	18	0	0	54	6	116

APPENDIX B – 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 13 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 ten 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 20.90 years. As of June 30, 2016, it would take 20.90 years to fully pay off the total Unfunded Actuarial Liability based on the current UAL payment increasing as a level percentage of payroll.

3. Asset Valuation Method

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

APPENDIX B – 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 \$5.1 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.

APPENDIX B – 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.

Percentage Married	
Gender	Percentage
Males	75%
Females	55%

11. Vacation Cashout

Any cashouts 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, 2016

APPENDIX B – 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, 2016

APPENDIX B – 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 PEPRAs 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, 2016

APPENDIX B – 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, 2016

APPENDIX B – 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, 2016**

APPENDIX B – STATEMET 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 or service are assumed to be service-related.

APPENDIX B – 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 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 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 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 CalPERS Industrial Disabled Annuitant Mortality, with no adjustment (Safety only), 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.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

19. 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%				

APPENDIX C – 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, 2016. The benefit and contribution provisions of this law are summarized briefly below, *(along with corresponding references to the State Code)*. This summary does not attempt to cover all the detailed provisions of the law.

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

A. Membership in Retirement Plans

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

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

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

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

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

General Plan 2: Employees hired on or before June 30, 1999, who elected to join General Plan 2. Once vested, Plan 2 members have a one-time election to defer accrued Plan 2 benefits and enter a contributory plan in effect at the time of election. Contributions are based upon age at time of transfer.

Safety Plan 4A & General Plan 5A: General employees hired before October 10, 1994, who did not elect to join General Plan 2, and some Safety employees hired before October 10, 1994.

Safety Plan 4B & General Plan 5B: Employees in certain bargaining units hired on or after October 10, 1994. Some employees are in Safety Plan 4B without regard to hire date.

APPENDIX C – 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)

APPENDIX C – 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 5 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 5 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 5 years of service and 10 years of elapsed time since membership;

Any age with 20 years of service. *(31663.25)*

APPENDIX C – SUMMARY OF PLAN PROVISIONS

PEPRA Plan 8 members:

General and APCD: Age 52 with 5 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 (\$117,898 for calendar year 2016 and \$120,408 for calendar year 2017). For those not participating in Social Security, the compensation cap is 120% of the above limit (\$141,477 for

APPENDIX C – SUMMARY OF PLAN PROVISIONS

calendar year 2016 and \$144,490 for calendar year 2017). 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, 2016**

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Age Factors By Plan							
	General		General & APCD Plan 8	APCD	Safety		
	Plan 5	Plan 7			Plan 4	Plan 6	Plan 8
Code Section:	31676.12	31676.1		31676.15	31664.2	31664.1	
Label:	2% @ 57	1.67% @ 57.5	PEPRA	2% @ 55	3% @ 55	3% @ 50	PEPRA
Base:	2.00%	1.67%		2.00%	3.00%	3.00%	
Age:							
41					0.4777	0.6258	
42					0.5058	0.6625	
43					0.5347	0.7004	
44					0.5647	0.7397	
45					0.5958	0.7805	
46					0.6280	0.8226	
47					0.6625	0.8678	
48					0.6936	0.9085	
49					0.7269	0.9522	
50	0.6681	0.7091		0.7454	0.7634	1.0000	0.0200
51	0.7056	0.7457		0.7882	0.8028	1.0000	0.0210
52	0.7454	0.7816	0.0100	0.8346	0.8457	1.0000	0.0220
53	0.7882	0.8181	0.0110	0.8850	0.8926	1.0000	0.0230
54	0.8346	0.8556	0.0120	0.9399	0.9418	1.0000	0.0240
55	0.8850	0.8954	0.0130	1.0000	1.0000	1.0000	0.0250
56	0.9399	0.9382	0.0140	1.0447	1.0000	1.0000	0.0260
57	1.0000	0.9846	0.0150	1.1048	1.0000	1.0000	0.0270
58	1.0447	1.0350	0.0160	1.1686	1.0000	1.0000	0.0270
59	1.1048	1.0899	0.0170	1.2365	1.0000	1.0000	0.0270
60	1.1686	1.1500	0.0180	1.3093	1.0000	1.0000	0.0270
61	1.2365	1.1947	0.0190	1.3608	1.0000	1.0000	0.0270
62	1.3093	1.2548	0.0200	1.4123	1.0000	1.0000	0.0270
63	1.3093	1.3186	0.0210	1.4638	1.0000	1.0000	0.0270
64	1.3093	1.3865	0.0220	1.5153	1.0000	1.0000	0.0270
65	1.3093	1.4593	0.0230	1.5668	1.0000	1.0000	0.0270
66	1.3093	1.4593	0.0240	1.5668	1.0000	1.0000	0.0270
67	1.3093	1.4593	0.0250	1.5668	1.0000	1.0000	0.0270

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Maximum Allowance:

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

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

Unmodified Retirement Allowance (Normal Form):

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

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

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

Optional Retirement Allowance:

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

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

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

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

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

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

APPENDIX C – 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).

APPENDIX C – 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 (5) 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)

Safety Members: Age 55. (31727.2)

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Supplemental Monthly Disability Retirement:

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

Normal Form Of Payment:

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

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

Death after Retirement:

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

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

G. Service-Connected Death Benefits

Eligibility:

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

Monthly Allowance:

General Plan 2: A lump sum is payable to an eligible survivor equal to $1/12 \times$ final 12 months' Salary \times years of service (up to max of 6 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 C – 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 6 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 6 years). (31781.1)

Supplemental Monthly Death Benefit:

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

I. Deferred Vested Benefits

Eligibility:

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

APPENDIX C – SUMMARY OF PLAN PROVISIONS

All other Plans: Member contributions must be left on deposit and the member must have terminated with five (5) years of service or entered a reciprocal agency. Members are eligible for service retirement when they reach service retirement eligibility (based on years of service at termination plus reciprocal service, if any). (31700, 31701, 31702)

Monthly Allowance:

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

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

J. Cost-of-Living Increases

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

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

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

General Plan 7:

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

General Plan 8 (PEPRA):

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

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

APPENDIX C – 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 D – 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.

APPENDIX D – GLOSSARY

7. Actuarial Value of Assets

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

8. Actuarially Equivalent

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

9. Amortization Payment

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

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.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

APPENDIX E – MEMBER CONTRIBUTION RATES

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

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

APPENDIX E – 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 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, 2016

APPENDIX F – STATEMENT OF PRIOR ACTUARIAL ASSUMPTIONS AND METHODS

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

General		PEPRA Rates		
2% COLA	3% COLA	Safety	APCD	
8.25%	10.07%	14.46%	6.91%	
Assumptions:				
Interest: 7.00%				
Salary: 2016 Valuation Scale (Service based, includes wage inflation at 3.00%)				
Mortality: Because the PEPRA contribution rates are based on 50% of the actual Normal Cost, the mortality rates are the same as those used in the actuarial valuation (CALPERS Healthy Annuitant Mortality, based on generational improvements using scale MP-2016)				
Administrative Rates have been loaded by 3.4% to account for expected expenses: administrative expenses allocated to the members				

APPENDIX F – STATEMENT OF PRIOR 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 13 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 ten 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 14.12 years. As of June 30, 2015, it would take 14.12 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. The Actuarial Value of Assets is no longer applicable.

APPENDIX F – STATEMENT OF PRIOR 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, 2010 through June 30, 2013 and adopted by the Board. More details on the rationale for the demographic and economic assumptions can be found in the Experience Analysis dated November 8, 2013. There were no changes to the assumptions or methods from the prior valuation.

1. Rate of Return

Assets are assumed to earn 7.50% net of investment expenses.

2. Administrative Expenses

Administrative expenses are assumed to be \$4.40 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 3.50% each year.

3. Cost-of-Living

The cost-of-living as measured by the Consumer Price Index (CPI) will increase at the rate of 3.00% per year.

4. Post Retirement COLA

Benefits are assumed to increase after retirement at the rate of 2.75% per year for General Plans 5, Safety Plans 4, 6, and 8 (PEPRA), and APCD Plans 1 and 2; 2.00% 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 2.00% 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 2.75% 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.

APPENDIX F – STATEMENT OF PRIOR 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 3.00% per year. This assumption is also used for increasing the compensation limit that applies to PEPRA members.

8. Interest on Member Contributions

The annual credited interest rate on member contributions is assumed to be 4.00%. 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. A 1.34% load was applied to the expected years of service at retirement for sick leave service credit. This assumption was adopted effective June 30, 2010.

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.

Percentage Married	
Gender	Percentage
Males	75%
Females	55%

11. Vacation Cashout

Any cashouts of vacation during the final average salary period affecting the calculation of a retirement benefit are recognized at the time of retirement. There is no prerecognition of potential costs included in the valuation.

SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016

APPENDIX F – STATEMENT OF PRIOR ACTUARIAL ASSUMPTIONS AND METHODS

12. Increases in Pay

Wage inflation component: 3.50%

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, 2016

APPENDIX F – STATEMENT OF PRIOR ACTUARIAL ASSUMPTIONS AND METHODS

13. Rates of Termination

Sample rates of termination are show in the following table below. The 1.30% rate of termination continues for Safety PEPRAs 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%	3.50%
4	7.00%	3.50%
5	6.00%	3.50%
6	6.00%	3.00%
7	5.00%	2.70%
8	5.00%	2.70%
9	4.50%	2.70%
10	4.50%	2.00%
11	4.00%	1.50%
12	3.50%	1.50%
13	3.00%	1.30%
14	3.00%	1.30%
15	2.50%	1.30%
16	2.00%	1.30%
17	2.00%	1.30%
18	2.00%	1.30%
19	2.00%	1.30%
20	1.00%	0.00%
21	1.00%	
22	1.00%	
23	1.00%	
24	1.00%	
25	1.00%	
26	1.00%	
27	1.00%	
28	1.00%	
29	1.00%	
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, 2016**

APPENDIX F – STATEMENT OF PRIOR 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	30.00%	30.00%
6	30.00%	30.00%
7	30.00%	30.00%
8	30.00%	30.00%
9	30.00%	30.00%
10	20.00%	15.00%
11	20.00%	15.00%
12	20.00%	15.00%
13	20.00%	15.00%
14	20.00%	15.00%
15	15.00%	15.00%
16	15.00%	15.00%
17	15.00%	15.00%
18	15.00%	15.00%
19	15.00%	15.00%
20	15.00%	0.00%
21	15.00%	0.00%
22	15.00%	0.00%
23	15.00%	0.00%
24	15.00%	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, 2016

APPENDIX F – STATEMENT OF PRIOR 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 50
APCD Members:	Age 58

15. Reciprocal Transfers

50% 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:	3.75%
Safety Members:	4.00%

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

APPENDIX F – STATEMENT OF PRIOR 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%	0.072%	0.080%
31	0.004%	0.010%	0.072%	0.080%
32	0.004%	0.010%	0.072%	0.080%
33	0.004%	0.010%	0.072%	0.080%
34	0.004%	0.010%	0.072%	0.080%
35	0.004%	0.010%	0.090%	0.100%
36	0.004%	0.010%	0.090%	0.100%
37	0.004%	0.010%	0.090%	0.100%
38	0.004%	0.010%	0.090%	0.100%
39	0.004%	0.010%	0.090%	0.100%
40	0.004%	0.010%	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	0.028%	0.070%	0.162%	0.180%
47	0.032%	0.080%	0.180%	0.200%
48	0.036%	0.090%	0.225%	0.250%
49	0.040%	0.100%	0.225%	0.250%
50	0.048%	0.120%	0.252%	0.280%
51	0.052%	0.130%	0.270%	0.300%
52	0.056%	0.140%	0.630%	0.700%
53	0.060%	0.150%	0.630%	0.700%
54	0.064%	0.160%	0.630%	0.700%
55	0.068%	0.170%	0.630%	0.700%
56	0.072%	0.180%	0.630%	0.700%
57	0.076%	0.190%	0.630%	0.700%
58	0.080%	0.200%	0.630%	0.700%
59	0.084%	0.210%	0.630%	0.700%
60	0.088%	0.220%	0.630%	0.700%
61	0.092%	0.230%	0.630%	0.700%
62	0.092%	0.230%	0.630%	0.700%
63	0.092%	0.230%	0.630%	0.700%
64	0.092%	0.230%	0.630%	0.700%
65	0.092%	0.230%	0.000%	0.000%
66	0.092%	0.230%		
67	0.092%	0.230%		
68	0.092%	0.230%		
69	0.092%	0.230%		
70	0.092%	0.230%		
71	0.092%	0.230%		
72	0.092%	0.230%		
73	0.092%	0.230%		
74	0.092%	0.230%		
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.

APPENDIX F – STATEMENT OF PRIOR ACTUARIAL ASSUMPTIONS AND METHODS

17. Rates of Mortality for Healthy Lives

Mortality rates for actives, retirees, beneficiaries, terminated vested, and reciprocals are based on the sex distinct Retired Pensioner (RP) 2000 Combined Healthy Tables, published by the Society of Actuaries, with Generational improvement using Projection Scale BB.

18. Rates of Mortality for Retired Disabled Lives

Mortality rates for disabled retirees are based on the sex distinct Retired Pensioner (RP) 2000 Tables Combined Healthy Tables, published by the Society of Actuaries, with Generational improvement using Projection Scale BB, set forward five years for males and females.

19. Type of Mortality

For non-safety employees, all deaths are assumed to be non-service related.

**SANTA BARBARA COUNTY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2016**

APPENDIX F – STATEMENT OF PRIOR ACTUARIAL ASSUMPTIONS AND METHODS

20. Rates of Retirement

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

Rates of Retirement						
Age	General		General - PEPRA		Safety	
	Male	Female	Male	Female	Plan 4	Plan 6
< 34	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
35	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%
36	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%
37	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%
38	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%
39	0.00%	0.00%	0.00%	0.00%	1.00%	1.00%
40	3.00%	4.00%	0.00%	0.00%	1.00%	1.00%
41	3.00%	4.00%	0.00%	0.00%	1.00%	1.00%
42	3.00%	4.00%	0.00%	0.00%	1.00%	1.00%
43	3.00%	4.00%	0.00%	0.00%	1.00%	1.00%
44	3.00%	4.00%	0.00%	0.00%	1.00%	1.00%
45	3.00%	4.00%	0.00%	0.00%	1.00%	1.00%
46	3.00%	4.00%	0.00%	0.00%	1.00%	2.00%
47	3.00%	4.00%	0.00%	0.00%	1.00%	5.00%
48	3.00%	4.00%	0.00%	0.00%	1.00%	5.00%
49	3.00%	4.00%	0.00%	0.00%	3.00%	17.00%
50	3.00%	4.00%	0.00%	0.00%	4.00%	23.00%
51	4.00%	4.00%	0.00%	0.00%	4.00%	14.00%
52	4.00%	4.00%	2.40%	1.80%	4.00%	14.00%
53	4.00%	4.00%	2.40%	1.80%	5.00%	14.00%
54	4.00%	6.00%	2.40%	5.40%	22.00%	28.00%
55	4.00%	7.00%	2.40%	5.40%	33.00%	31.00%
56	6.00%	8.00%	3.60%	5.40%	23.00%	20.00%
57	6.00%	9.00%	3.60%	5.40%	23.00%	20.00%
58	6.00%	9.00%	3.60%	5.40%	23.00%	20.00%
59	12.00%	12.00%	7.20%	7.20%	23.00%	20.00%
60	15.00%	13.00%	9.00%	9.00%	23.00%	20.00%
61	25.00%	23.00%	15.00%	10.80%	23.00%	20.00%
62	25.00%	23.00%	20.00%	20.00%	23.00%	20.00%
63	25.00%	23.00%	20.00%	20.00%	23.00%	20.00%
64	25.00%	23.00%	20.00%	20.00%	23.00%	20.00%
65	25.00%	23.00%	25.00%	25.00%	100.00%	100.00%
66	25.00%	23.00%	25.00%	25.00%		
67	25.00%	23.00%	40.00%	40.00%		
68	25.00%	23.00%	25.00%	25.00%		
69	25.00%	23.00%	25.00%	25.00%		
70	25.00%	23.00%	25.00%	25.00%		
71	25.00%	23.00%	25.00%	25.00%		
72	25.00%	23.00%	25.00%	25.00%		
73	25.00%	23.00%	25.00%	25.00%		
74	25.00%	23.00%	25.00%	25.00%		
75	100.00%	100.00%	100.00%	100.00%		



Classic Values, Innovative Advice