

# Sacramento County Employees' Retirement System

Actuarial Valuation and Review as of June 30, 2014

This report has been prepared at the request of the Board of Retirement to assist in administering the Fund. This valuation report may not otherwise be copied or reproduced in any form without the consent of the Board of Retirement and may only be provided to other parties in its entirety. The measurements shown in the actuarial valuation may not be applicable for other purposes.

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October 28, 2014

Board of Retirement Sacramento County Employees' Retirement System 980 9<sup>th</sup> Street, Suite 1900 Sacramento, CA 95814

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of June 30, 2014. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2015-2016 and analyzes the preceding year's experience.

This report was prepared in accordance with generally accepted actuarial principles and practices at the request of the Board to assist in administering the Retirement System. The census information and financial information on which our calculations were based was prepared by the Retirement System. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, Enrolled Actuary.

The measurements shown in this actuarial valuation may not be applicable for other purposes. Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period); and changes in plan provisions or applicable law.

The actuarial calculations were directed under our supervision. We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in the actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Retirement System.

We look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,

Segal Consulting, a Member of The Segal Group, Inc.

*Bv*:

Paul Angelo, FSA, EA, MAAA, FCA Senior Vice President and Actuary

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Vice President and Associate Actuary

MYM/gxk

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# **Purpose**

This report has been prepared by The Segal Company to present a valuation of the Sacramento County Employees' Retirement System as of June 30, 2014. The valuation was performed to determine whether the asset and contribution levels will be sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- > The benefit provisions of the Retirement System, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive vested members, and retired members and beneficiaries as of June 30, 2014, provided by the Retirement System;
- > The assets of the plan as of June 30, 2014, provided by the Retirement System;
- > Economic assumptions regarding future salary increases and investment earnings; and
- > Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

One of the general goals of an actuarial valuation is to establish contributions which fully fund the System's liabilities, and which, as a percentage of payroll, remain as level as possible for each generation of active members. Annual actuarial valuations measure the progress toward this goal, as well as test the adequacy of the contribution rates.

In preparing this valuation, we have employed generally accepted actuarial methods and assumptions to evaluate the System's assets, liabilities and future contribution requirements. Our calculations are based upon member data and financial information provided to us by the System's staff. This information has not been audited by us, but it has been reviewed and found to be consistent, both internally and with prior year's information.

The contribution requirements are determined as a percentage of payroll. The System's employer rates provide for both normal cost and a contribution to amortize any unfunded or overfunded actuarial accrued liabilities. In this valuation, we have applied the funding policy adopted by the Board on June 19, 2013 to continue (1) to amortize the unfunded actuarial accrued liability (UAAL) established as a result of the 2010 Early Retirement Incentive Program for the Sacramento County Law Enforcement Managers Association (LEMA) members over a 10-year period beginning June 30, 2010 and (2) to amortize the System's remaining outstanding balance of the June 30, 2012 UAAL over a declining 23-year period (21 years as of June 30, 2014). Effective with the June 30, 2013 valuation, the Board of Retirement's funding policy is to amortize any change in UAAL that arises due to actuarial gains or losses or from changes in actuarial assumptions or methods at each valuation over its own declining 20-year period. Any change in UAAL that arises due to plan amendments will be amortized over its own declining 15-year period and any change in UAAL due to retirement incentive programs will be amortized over its own declining period



of up to 5 years. The rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2015 through June 30, 2016.

### **Significant Issues in Valuation Year**

Reference:	Pgs. 59
	& 66

> The results of this valuation reflect changes in the non-economic assumptions as recommended by Segal and adopted by the Board for the June 30, 2014 valuation. These changes were documented in our Actuarial Experience Study and are also outlined in Section 4, Exhibit V of this report. These assumption changes resulted in a decreased in the average employer rate of 0.59% of payroll and a decrease in the aggregate member rate of 0.20% of payroll.

#### Reference: Pg. 6

- The results of this valuation reflect a change to combine the \$9.8 million in net deferred losses as of June 30, 2013 and recognize those losses in level amounts over a six-year period starting July 1, 2013. This adjustment was approved by the Board. After crediting \$45.5 million in excess earnings above the assumed investment rate of return to the valuation reserves, the Board allocated another \$45.5 million in excess earnings to the Contingency Reserve (that we do not use as valuation assets in this valuation)
- > After we completed the June 30, 2013 valuation, we were informed by SCERS that starting in 2014/2015, most County members in the legacy tiers have agreed to pick up either 1/3, 1/4, or 1/5 of the difference between the employee's then current member Normal Cost rate and 50% of the total normal cost rate. The adjustments required for the employer and employee rates were subsequently provided to the System and the impact of those adjustments are identified in this report.
  - As those members have also agreed to pick up an additional 1/3, 1/4, or 1/5 of the difference in the Normal Cost rate in 2015/2016, we have reflected these adjustments in preparing the recommended rates for the June 30, 2014 valuation.

Reference: Pg. 57

Pg. 50

> The ratio of the actuarial value of assets to actuarial accrued liabilities increased from 82.8% to 85.2%. On a market value of assets basis, the funded ratio increased from 82.7% to 91.0%. The System's unfunded actuarial accrued liability decreased from \$1,413 million as of June 30, 2013 to \$1,268 million as of June 30, 2014. The change in the UAAL is mainly due to investment returns (after "smoothing") higher than the 7.50% investment return assumption (used in the June 30, 2013 valuation) and lower than expected salary increases during 2013/2014 offset to some degree by changes in actuarial assumptions. A reconciliation of the System's unfunded actuarial accrued liability is provided in Section 3, Exhibit H.

Reference: Pg. 21

Reference:

The aggregate employer rate decreased from 27.40% of payroll to 24.37% of payroll. (27.40% is before the adjustment to reflect most County members in the legacy tiers agreeing to pick up an additional portion of the total Normal Cost in 2014/2015. The rate is 26.64% after the adjustment.) The reasons for this change in contribution rate are higher than expected returns on investments (after "smoothing"), lower than expected salary increases during 2013/2014, the changes in actuarial assumptions, most County members in the legacy tiers agreeing to pick up an additional portion of the Normal Cost in 2015/2016, and other experience gains offset to some degree by an increase in UAAL rate due to lower than



expected increase in payroll. A reconciliation of the System's aggregate employer rate is provided in Section 2, Subsection D (see Chart 14).

Reference: Pg. 22

> The aggregate member rate calculated in this valuation has increased from 6.39% of payroll to 7.79% of payroll. (6.39% is before the adjustment to reflect most County members in the legacy tiers agreeing to pick up an additional portion of the total Normal Cost in 2014/2015. The rate is 7.17% after the adjustment.) The increase in member rate is due to most County members in the legacy tiers agreeing to pick up an additional portion of the Normal Cost in 2015/2016 and changes in demographics offset to some degree by the changes in actuarial assumptions. A reconciliation of the System's aggregate member rate is provided in Section 2, Subsection D (see Chart 15).

Reference: Pg. 6

- As indicated in Section 2, Subsection B (see Chart 7) of this report, the total net unrecognized investment gain as of June 30, 2014 is \$497.0 million (as compared to a net unrecognized investment loss of \$9.8 million as of June 30, 2013). This investment gain will be recognized in the determination of the actuarial value of assets for funding purposes over the next six years. That means if the System earns the assumed rate of investment return of 7.50% per year on a market value basis, there will be investment gains on the actuarial value of assets in the next few years. Therefore, if the actual market return is equal to the assumed rate of 7.50% and all the other actuarial assumptions are met, the employer contribution requirements would decrease in the next few years.
- > The unrecognized investment gains represent about 6% of the market value of assets. Unless offset by future investment losses or other unfavorable experience, the recognition of the \$497.0 million in past market gains is expected to have an impact on the System's future funded ratio and the aggregate employer contributions. This potential impact may be illustrated as follows:
  - If the deferred gains were recognized immediately in the actuarial value of assets, the funded percentage would increase from 85.2% to 91.0%.
  - If the deferred gains were recognized immediately in the actuarial value of assets, the aggregate employer contribution rate would decrease from 24.4% of payroll to 20.3% of payroll.
- > The actuarial valuation report as of June 30, 2014 is based on financial information as of that date. Changes in the value of assets subsequent to that date are not reflected. Declines in asset values will increase the actuarial cost of the plan, while increases will decrease the actuarial cost of the plan.
- > The actuarial valuation report as of June 30, 2014 only reflects the sharing of the total Normal Cost rate between the employer and most County members in the legacy tiers through 2015/2016. Any additional Normal Cost that most County members in the legacy tiers have agreed to pick up beyond 2015/2016 will be reflected in future actuarial valuations.



> The Governmental Accounting Standards Board (GASB) approved two new Statements affecting the reporting of pension liabilities for accounting purposes. Statement 67 replaces Statement 25 and is for plan reporting. Statement 67 is effective with the fiscal year ending June 30, 2014 for Plan reporting Statement 68 is effective with the fiscal year ending June 30, 2015 for employer reporting. The information needed to comply with Statements 67 and 68 will be provided in separate reports.

# Impact of Future Experience on Contribution Rates

Future contribution requirements may differ from those determined in the valuation because of:

- > difference between actual experience and anticipated experience;
- changes in actuarial assumptions or methods;
- > changes in statutory provisions; and
- > difference between the contribution rates determined by the valuation and those adopted by the Board.



	June	30, 2014	June 30, 2013	
Employer Contribution Rates (Dollar amounts in thousands):		Estimated		Estimated
	Total Rate	Annual Amount <sup>(1)</sup>	Total Rate(2)	Annual Amount <sup>(1)</sup>
Miscellaneous Tier 1	17.84%	\$2,065	23.05%	\$2,671
Miscellaneous Tier 2	16.76%	848	20.71%	1,048
Miscellaneous Tier 3	19.75%	119,886	23.63%	143,395
Miscellaneous Tier 4	15.96%	2,850	17.91%	3,198
Miscellaneous Tier 5	15.19%	5,686	17.29%	6,528
Safety Tier 1	42.59%	17,886	43.59%	18,306
Safety Tier 2	41.56%	59,510	41.92%	60,025
Safety Tier 3	39.92%	2,475	41.06%	2,546
Safety Tier 4	35.13%	3,350	35.61%	3,395
All Categories Combined	24.37%	\$214,556	27.40%	\$241,112
Aggregate Member Contribution Rates (Dollar amounts in		Estimated		Estimated
thousands):	Total Rate	Annual Amount <sup>(1)</sup>	Total Rate(2)	Annual Amount <sup>(1)</sup>
All Categories Combined	7.79%	\$68,552	6.39%	\$56,232
Individual Member Contribution Rates:		Per Member		Per Member
(Before additional pick-up of total Normal Cost)	Total Rate <sup>(3)</sup>	Annual Amount <sup>(4)</sup>	Total Rate <sup>(3)</sup>	Annual Amount <sup>(4)</sup>
Miscellaneous Tier 1	4.75%	\$3,626	5.43%	\$4,141
Miscellaneous Tier 2	3.54%	2,371	3.82%	2,558
Miscellaneous Tier 3	4.78%	3,240	5.18%	3,507
Miscellaneous Tier 4	7.20%	4,244	7.80%	4,597
Miscellaneous Tier 5	8.12%	3,877	8.78%	4,192
Safety Tier 1	15.25%	18,735	14.30%	17,572
Safety Tier 2	12.29%	12,337	11.94%	11,987
Safety Tier 3	12.10%	9,974	11.82%	9,743
Safety Tier 4	13.11%	8,620	13.86%	9,113

<sup>(1)</sup> Based on June 30, 2014 projected annual compensation.



Before adjustment to reflect most County members in the legacy tiers agreeing to pick up an additional portion of the total Normal Cost in 2014/2015. The employer and the member Normal Cost rates after the adjustment are 26.64% and 7.17%, respectively.

Based on single full-rates payable by members who enter on or after January 1, 1975.

Based on average projected annual compensation for members in each respective tier.

Summary of Key Valuation Results – continued		
	June 30, 2014	June 30, 2013
Funded Status (Dollar Amounts in thousands):		
Actuarial accrued liability <sup>(1)</sup>	\$8,580,928	\$8,210,980
Actuarial value of assets (AVA) <sup>(1)</sup>	7,312,993	6,797,757
Market value of assets (MVA)	7,810,001	6,787,995
Funded percentage on an AVA basis	85.2%	82.8%
Funded percentage on a MVA basis	91.0%	82.7%
Unfunded actuarial accrued liability on an AVA basis	\$1,267,935	\$1,413,223
Unfunded actuarial accrued liability on a MVA basis	770,927	1,422,985
Key Assumptions:		
Interest rate	7.50%	7.50%
Inflation rate	3.25%	3.25%
Across-the-board real salary increase	0.25%	0.25%

<sup>(1)</sup> Includes non-valuation reserves and designations.



SECTION 1: Valuation Summary for the Sacramento County Employees' Retirement System

	June 30, 2014	June 30, 2013	Percentage Change
Active Members:			
Number of members	12,049	12,026	0.2%
Average age	46.9	47.0	N/A
Average service	12.8	12.9	N/A
Projected total compensation	\$879,998,011	\$877,655,709	0.3%
Average projected compensation	\$73,035	\$72,980	0.1%
Retired Member and Beneficiaries:			
Number of members:			
Service retired	7,913	7,557	4.7%
Disability retired	725	716	1.3%
Beneficiaries	1,411	1,361	3.7%
Total	10,049	9,634	4.3%
Average age	69.1	69.0	N/A
Average monthly benefit	\$2,950	\$2,865	3.0%
Vested Terminated Members:			
Number of terminated vested members <sup>(1)</sup>	3,201	3,249	-1.5%
Average age	47.3	47.0	N/A
Summary of Financial Data (dollar amounts in thousands):			
Market value of assets	\$7,810,001	\$6,787,995	15.1%
Return on market value of assets	16.13%	12.73%	N/A
Actuarial value of assets	\$7,312,993	\$6,797,757	7.6%
Return on actuarial value of assets	8.70%	5.07%	N/A
Valuation value of assets	\$7,277,721	\$6,805,319	6.9%
Return on valuation value of assets	8.06%	5.19%	N/A

<sup>(1)</sup> Includes terminated members due a refund of member contributions.



### A. MEMBER DATA

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, vested terminated members, retired members and beneficiaries. This section presents a summary of significant statistical data on these member groups.

More detailed information for this valuation year and the preceding valuation can be found in Section 3, Exhibits A, B, and C.

A historical perspective of how the member population has changed over the past ten valuations can be seen in this chart.

CHART 1
Member Population: 2005 – 2014

Year Ended June 30	Active Members	Vested Terminated Members <sup>(1)</sup>	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
2005	13,728	2,135	6,784	0.65
2006	14,412	2,192	7,108	0.65
2007	14,716	2,437	7,464	0.67
2008	15,180	2,661	7,709	0.68
2009	14,796	2,818	7,968	0.73
2010	13,340	2,740	8,346	0.83
2011	12,434	2,710	8,821	0.93
2012	12,155	2,851	9,239	0.99
2013	12,026	3,249	9,634	1.07
2014	12,049	3,201	10,049	1.10

<sup>(1)</sup> Includes terminated members due a refund of member contributions



### **Active Members**

Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there were 12,049 active members with an average age of 46.9, average years of service of 12.8 years and average compensation of \$73,035. The 12,026 active members in the prior valuation had an average age of 47.0, average service of 12.9 years and average compensation of \$72,980.

### **Inactive Members**

In this year's valuation, there were 3,201 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 3,249 in the prior valuation.

These graphs show a distribution of active members by age and by years of service.

CHART 2
Distribution of Active Members by Age as of June 30, 2014

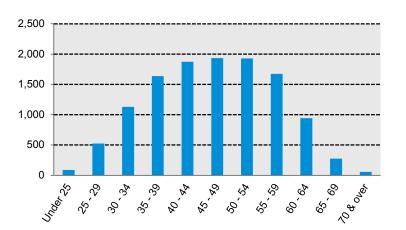
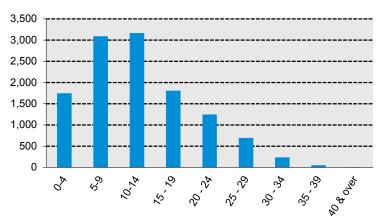


CHART 3
Distribution of Active Members by Years of Service as of June 30, 2014





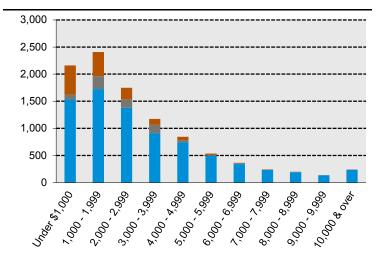
### **Retired Members and Beneficiaries**

As of June 30, 2014, 8,638 retired members and 1,411 beneficiaries were receiving total monthly benefits of \$29,647,061. For comparison, in the previous valuation, there were 8,273 retired members and 1,361 beneficiaries receiving monthly benefits of \$27,597,978.

These graphs show a distribution of the current retired members and beneficiaries based on their monthly amount and age, by type of pension.



# CHART 4 Distribution of Retired Members and Beneficiaries by Type and by Monthly Amount as of June 30, 2014



# CHART 5 Distribution of Retired Members and Beneficiaries by

Type and by Age as of June 30, 2014

3,000 2,500 1,500 1,000 500 0



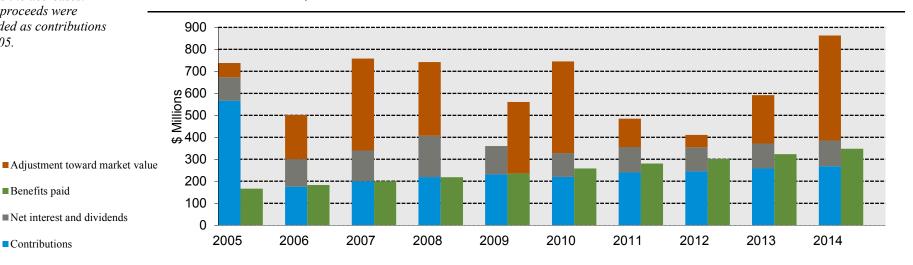
### **B. FINANCIAL INFORMATION**

Retirement plan funding anticipates that, over the long term, both contributions and net investment earnings (less investment fees and administrative expenses) will be needed to cover benefit payments.

Retirement plan assets change as a result of the net impact of these income and expense components. The adjustment toward market value shown in the chart is the "non-cash" earnings on investments implicitly included in the actuarial value of assets. Additional financial information, including a summary of these transactions for the valuation year, is presented in Section 3, Exhibits D and E.

The chart depicts the components of changes in the actuarial value of assets over the last ten vears. Note: The first bar represents increases in assets during each year while the second bar details the decreases. POB proceeds were included as contributions in 2005.

# **CHART 6** Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended June 30, 2005 - 2014





■ Net interest and dividends

■Benefits paid

■ Contributions

It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board of Retirement has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuations is not recognized in a single year and, as a result, the asset value and the plan costs are more stable.

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets does not have an impact on the actuarial value of assets.

The determination of the Actuarial and Valuation Value of Assets is provided on the following page.

In developing the actuarial value of assets as of June 30, 2014, we have used the investment gains/losses from the prior six years. The investment gain for the year ending June 30, 2014 was calculated by comparing the actual market return against an expected market return of 7.50% per annum used in the June 30, 2013 valuation. As adopted by the Board, any investment gains/losses established after July 1, 2008 will be recognized over a seven-year period and the deferred return will be further adjusted, if necessary, so that the actuarial value of assets will stay within 30% of the market value of assets. Deferred gains and losses as of June 30, 2013 have been combined and will be recognized in equal amounts over a period of six years starting July 1, 2013.



CHART 7 - Determination of Actuarial and Valuation Value of Assets for Year Ended June 30, 2014

From	То	Contributions	Benefits	Market Value	Average Market Value	
7/2008	6/2009	\$231,634,350	\$235,677,778	\$4,407,858,000	\$5,807,291,027	
7/2009	6/2010	219,555,464	258,023,786	4,980,962,000	4,462,064,342	
7/2010	6/2011	240,071,877	280,594,039	6,140,644,000	5,040,052,530	
7/2011	6/2012	244,788,721	301,803,914	6,073,926,000	6,187,197,677	
7/2012	6/2013	257,906,339	323,566,930	6,787,995,000	6,124,682,749	
7/2013	6/2014	268,138,220	347,619,527	7,810,001,000	6,828,714,719	
		Total Actual Market	Expected Market	Investment Gain		
From	To	Return (net)	Return (net)	(Loss)	Deferred Factor	Deferred Return
7/2008	6/2009	(\$1,324,427,572)	\$457,324,168	(\$1,781,751,740)		
7/2009	6/2010	611,572,322	351,387,567	260,184,755		
7/2010	6/2011	1,200,204,162	390,604,071	809,600,091	See footnote	(1) below
7/2011	6/2012	(9,702,807)	479,507,820	(489,210,627)		
7/2012	6/2013	779,729,591	459,351,206	320,378,385	0.833	(\$8,134,724)
7/2013	6/2014	1,101,487,307	512,153,604	589,333,703	0.857	505,143,174
Total Deferred Ret	urn <sup>(2)</sup>			, ,		\$497,008,450
Net Market Value						7,810,001,000
Actuarial Value of	Assets (Item 2 – Item	1)				7,312,992,550
Actuarial Value as	a Percentage of Mark	et Value (Before Corridor: Ite	em 3 / Item 2)			93.64%
	Assets – Corridor Lin					
	- 70% of Net Market					5,467,000,700
	- 130% of Net Market					
11						10,153,001,300
	Assets (within corrido					7,312,992,550
	rves and designations					
a. Contingency						45,549,661
<ul><li>b. Other Non-V</li></ul>	aluation Reserves					
<ul><li>c. Subtotal</li></ul>						\$45,549,661
Draliminary Valuat	ion Value of Assets (I	tam 6 Itam 7a)				7,267,442,889

Preliminary Valuation Value of Assets (Item 6 – Item 7c)

The amounts of deferred return that will be recognized in each subsequent valuation are as follows:

6/30/2015	\$82,563,584	6/30/2018	\$82,563,584
6/30/2016	\$82,563,584	6/30/2019	\$82,563,584
6/30/2017	\$82,563,584	6/30/2020	\$84 190 530

<sup>&</sup>lt;sup>(3)</sup> Based on the latest estimates available as of June 30, 2006 for Library Authority, June 30, 2007 for Air Quality and June 30, 2013 for Florin Fire adjusted with interests at the assumed rates of investment return to June 30, 2014.



The chart shows the determination of the actuarial and the valuation value of assets as of the valuation date.

22,964,000

(33,242,102)

(\$10,278,102)

\$7,277,720,991

Adjustment to Preliminary Valuation Value of Assets

a. Balance of transfer to offset member COLA rate

b. Surplus/(deficit) for withdrawn employers (preliminary)<sup>(3)</sup>

c. Subtotal

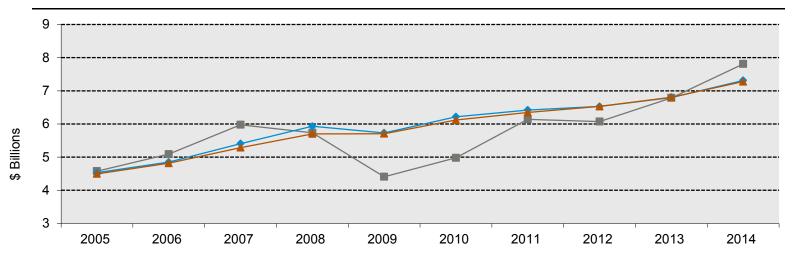
<sup>10.</sup> Final Valuation Value of Assets (Item 8 – Item 9c)

Based on action taken by the Board, the net deferred loss of \$9,761,669 through June 30, 2013 as of that valuation has been recognized in six level amounts with five periods of recognition remaining after the June 30, 2014 valuation.

The market value, actuarial value, and valuation value of assets are representations of SCERS' financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets, but with less volatility. The valuation value of assets is the actuarial value, excluding any non-valuation reserves. The valuation asset value is significant because SCERS' liabilities are compared to these assets to determine what portion, if any, remains unfunded. Amortization of the unfunded actuarial accrued liability is an important element in determining the contribution requirement.

This chart shows the change in market value, actuarial value and valuation value over the past ten years.

# CHART 8 Market Value, Actuarial Value and Valuation Value of Assets as of June 30, 2005 – 2014







### C. ACTUARIAL EXPERIENCE

To calculate the required contribution, assumptions are made about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is measured against the assumptions. If overall experience is more favorable than anticipated (an actuarial gain), the contribution requirement will decrease from the previous year. On the other hand, the contribution requirement will increase if overall actuarial experience is less favorable than expected (an actuarial loss).

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term

development and that, over the long term, experience will return to the original assumptions. For contribution requirements to remain stable, assumptions should approximate experience.

If assumptions are changed, the contribution requirement is adjusted to take into account a change in experience anticipated for all future years.

The net experience gain was \$194.0 million, \$38.4 million gain from investments and \$155.6 million gain from all other sources. The net experience variation from individual sources other than investments was 1.8% of the actuarial accrued liability. An explanation of the experience variation is provided on page 12 and in Section 3, Exhibit H. A discussion of the major components of the actuarial experience is on the following pages.

This chart provides a summary of the actuarial experience during the past year.

# CHART 9 Actuarial Experience for Year Ended June 30, 2014

1.	Net gain from investments <sup>(1)</sup>	\$38,431,000
2.	Net gain from other experience <sup>(2)</sup>	155,572,000
3.	Net experience gain: $(1) + (2)$	\$194,003,000

<sup>(1)</sup> Details in Chart 10.



<sup>(2)</sup> Details in Section 3, Exhibit H. Does not include the effect of plan or assumption changes, if any.

### **Investment Rate of Return**

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on SCERS' investment policy. For valuation purposes, the assumed rate of return on the valuation value of assets was 7.50% in the June 30, 2013 valuation. The actual rate of return on a valuation basis for the 2013/2014 plan year was 8.06%.

Since the actual return on the valuation value of assets for the year was greater than the assumed return, SCERS experienced an actuarial gain during the year ended June 30, 2014 with regard to its investments.

This chart shows the gain/(loss) due to investment experience.

CHART 10
Investment Experience for Year Ended June 30, 2014 – Market, Actuarial and Valuation Value of Assets

	Market Value	Actuarial Value	Valuation Value
Actual return	\$1,101,488,000	\$594,718,000	\$551,884,000
2. Average value of assets	6,828,714,000	6,838,476,000	6,846,038,000
3. Actual rate of return: $(1) \div (2)$	16.13%	8.70%	8.06%
4. Assumed rate of return	7.50%	7.50%	7.50%
5. Expected return:	<u>512,154,000</u>	<u>512,886,000</u>	<u>513,453,000</u>
6. Actuarial gain/(loss): (1) – (5)	<u>\$589,334,000</u>	<u>\$81,832,000</u>	<u>\$38,431,000</u>



Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial, valuation, and market basis for the last ten years.

CHART 11
Investment Return – Market Value, Actuarial Value and Valuation Value: 2005 – 2014

_	Market Value   Retu		Actuarial Value Retur			'alue Investment Return	
Year Ended June 30	Amount	Percent	Amount	Percent	Amount	Percent	
2005	\$414,220,000	9.82%	\$171,384,000	3.88%	\$227,539,000	5.26%	
2006	522,803,000	11.30%	326,688,000	7.13%	329,339,000	7.24%	
2007	885,687,000	17.19%	558,262,000	11.37%	470,717,000	9.65%	
2008	(240,661,000)	(3.98%)	523,169,000	9.56%	413,272,000	7.72%	
2009	(1,324,428,000)	(22.81%)	(196,500,000)	(3.27%)	9,241,000	0.16%	
2010	611,573,000	13.71%	525,248,000	9.08%	450,949,000	7.83%	
2011	1,200,204,000	23.81%	244,352,000	3.89%	269,937,000	4.37%	
2012	(9,702,000)	(0.16%)	166,087,000	2.57%	238,467,000	3.73%	
2013	779,729,000	12.73%	333,523,000	5.07%	341,373,000	5.19%	
2014	1,101,488,000	16.13%	594,718,000	8.70%	551,884,000	8.06%	
ive-Year Average Return		12.97%		5.83%		5.82%	
en-Year Average Return		6.93%		5.72%		5.89%	

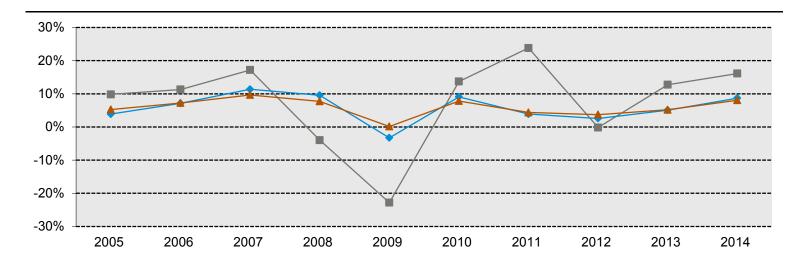


Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

This chart illustrates how this leveling effect has actually worked over the years 2005 - 2014.

CHART 12

Market, Actuarial and Valuation Rates of Return for Years Ended June 30, 2005 – 2014





# **Other Experience**

There are other differences between the expected and the actual experience that appear when the new valuation is compared with the projections from the previous valuation.

### These include:

- > actual turnover among the participants,
- retirement experience (earlier or later than expected),
- > mortality (more or fewer deaths than expected),
- > the number of disability retirements, and
- > salary increases different than assumed.

The net gain from this other experience for the year ended June 30, 2014 amounted to \$155.6 million which is 1.8% of the actuarial accrued liability. See Exhibit H for a detailed development of the Unfunded Actuarial Accrued Liability, and the breakdown of the actuarial gain/loss from other experience.



### D. EMPLOYER AND MEMBER CONTRIBUTIONS

Employer contributions consist of two components:

Normal Cost

The annual contribution rate that, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement-related benefits. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution rate is expressed as a level percentage of the member's compensation.

Contribution to the Unfunded Actuarial Accrued Liability (UAAL)

The annual contribution rate that, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution (or rate credit in the case of a negative unfunded actuarial accrued liability) is calculated to remain as a level percentage of future active member payroll (including payroll for new members as they enter the System) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments (credits) are scheduled to increase at the annual inflation rate of 3.50% (i.e., 3.25% inflation plus 0.25% real across-the-board salary increase). The UAAL established as a result of the Early Retirement Incentive Program for LEMA members is amortized over a 10-year period beginning June 30, 2010. Effective with the June 30, 2013 valuation, the System's remaining outstanding balance of the June 30, 2012 UAAL is being amortized over a declining 23-year period (21 years as of June 30, 2014). The change in UAAL that arises due to actuarial gains or losses or from changes in actuarial assumptions or methods at each valuation is amortized over its own declining 20-year period. Any change in UAAL that arises due to plan amendments will be amortized over its own declining 15-year period and any change in UAAL due to retirement incentive programs will be amortized over its own declining period of up to 5 years.

The recommended employer contributions are provided on Chart 13.

Employer normal cost and UAAL contribution rates are calculated assuming payments made at the end of every pay period.



#### Member Contributions

Miscellaneous Tiers 1, 2, 3 & 4 Safety Tiers 1, 2, & 3

Articles 6 and 6.8 of the 1937 Act define the methodology to be used in the calculation of member basic contribution rates for Miscellaneous members and Safety members, respectively, in the legacy tiers. The basic contribution rate is determined as that percentage of compensation which if paid annually from a member's first year of membership through the prescribed retirement age would accumulate to the amount necessary to fund a prescribed annuity.

The annuity is equal to:

- ➤ 1/240 of Final Average Salary per year of service at age 55 for current Miscellaneous Tier 1, Tier 2 and Tier 3 members
- ➤ 1/120 of Final Average Salary per year of service at age 60 for current Miscellaneous Tier 4 members
- ➤ 1/100 of Final Average Salary per year of service at age 50 for current Safety Tier 1, Tier 2 and Tier 3 members

In addition to their basic contributions, members in the legacy tiers pay one-half of the total normal cost necessary to fund their cost-of-living benefits. The cost to provide the cost-of-living benefits is offset somewhat by the balance available in an account maintained in the valuation to offset member's COLA rates in the legacy tiers. Accumulation includes semi-annual crediting of interest at the assumed investment earning rate. For members paying half rates, their rates should be exactly one-half of the rates described above.

After we completed the June 30, 2013 valuation, we were informed by SCERS that starting in 2014/2015, most County members in the legacy tiers have agreed to pick up either 1/3, 1/4, or 1/5 of the difference between the employee's then current Normal Cost and 50% of the total normal cost rate. The adjustments required for the employer and employee rates were subsequently provided to the System and the impact of those adjustments are identified in this report.

As those members have agreed to pick up an additional 1/3, 1/4, or 1/5 of the difference in the Normal Cost rate in 2015/2016, we have reflected these adjustments in preparing the recommended rates for the June 30, 2014 valuation.



Miscellaneous Tier 5 & Safety Tier 4

Pursuant to Section 7522.30(a) of the Government Code, Miscellaneous Tier 5 and Safety Tier 4 members are required to contribute at least 50% of the Normal Cost rate. In addition, there are certain additional requirements that would have to be met such as requiring the new employees to pay the contribution rate of "similarly situated employees", if it is greater. (reference: Section 7522.30(c)). We further understand that different rules may have to be applied for collectively bargained employees, non-represented, managerial or other supervisory employees. (reference: section 7522.30(e)). In preparing the Normal Cost rates in this report, we have assumed that exactly 50% of the Normal Cost would be paid by the new members and we have taken into account in this valuation only the requirements of Section 7522.30(c), but not requirements of Section 7522.30(e).

The member contribution rates are provided in Appendix A.

Member contributions are assumed to be made at the end of every pay period.



**CHART 13** Recommended Employer Contribution Rates (Dollar Amounts in Thousands)

County Only <sup>(1)</sup>	June 30, 2014 Actuarial Valuation		June 30, 2013 Actuarial Valuation	
county carry		Estimated Annual		Estimated Annual
Miscellaneous – Tier 1 Members	Rate	Amount <sup>(2)</sup>	Rate <sup>(3)</sup>	Amount <sup>(2)</sup>
Normal Cost	10.83%	\$1,136	14.65%	\$1,537
UAAL	6.75%	708	8.26%	867
Total Contribution	17.58%	\$1,844	22.91%	\$2,404
Miscellaneous – Tier 2 Members				
Normal Cost	9.80%	\$400	12.45%	\$507
UAAL	6.75%	275	8.26%	337
Total Contribution	16.55%	\$675	20.71%	\$844
Miscellaneous – Tier 3 Members				
Normal Cost	12.49%	\$67,223	15.03%	\$80,894
UAAL	6.75%	36,329	8.26%	44,457
Total Contribution	19.24%	\$103,552	23.29%	\$125,351
Miscellaneous – Tier 4 Members				
Normal Cost	9.21%	\$1,645	9.65%	\$1,723
UAAL	6.75%	1,205	8.26%	1,475
Total Contribution	15.96%	\$2,850	17.91%	\$3,198
Miscellaneous – Tier 5 Members				
Normal Cost	8.12%	\$2,860	8.88%	\$3,128
UAAL	6.75%	2,378	8.26%	2,910
Total Contribution	14.87%	\$5,238	17.14%	\$6,038



<sup>(1)</sup> Includes elected officials (Board of Supervisors, Sheriff, District Attorney and Assessor).
(2) Based on June 30, 2014 projected annual payroll, see page 20.
(3) Before adjustment to reflect most County members in the legacy tiers agreeing to pick up an additional portion of the total Normal Cost in 2014/2015.

# **Recommended Employer Contribution Rates (Dollar Amounts in Thousands)**

County Only <sup>(1)</sup>	June 30, Actuarial V		June 30, 2013 Actuarial Valuation	
C. C. A. T. A. M. A.	D .	Estimated Annual	D (3)	Estimated Annual
Safety – Tier 1 Members	Rate	Amount <sup>(2)</sup>	Rate <sup>(3)</sup>	Amount <sup>(2)</sup>
Normal Cost	21.30%	\$8,945	23.28%	\$9,777
UAAL	21.29%	8,941	20.31%	8,529
Total Contribution	42.59%	\$17,886	43.59%	\$18,306
Safety – Tier 2 Members				
Normal Cost	20.27%	\$29,025	21.61%	\$30,943
UAAL	21.29%	30,485	20.31%	29,082
Total Contribution	41.56%	\$59,510	41.92%	\$60,025
Safety – Tier 3 Members				
Normal Cost	18.63%	\$1,155	20.75%	\$1,287
UAAL	21.29%	1,320	20.31%	1,259
Total Contribution	39.92%	\$2,475	41.06%	\$2,546
Safety – Tier 4 Members				
Normal Cost	13.84%	\$1,320	15.30%	\$1,459
UAAL	21.29%	2,030	20.31%	1,936
Total Contribution	35.13%	\$3,350	35.61%	\$3,395
All County Categories Combined				
Normal Cost	14.09%	\$113,709	16.27%	\$131,255
UAAL	10.37%	83,671	11.26%	90,852
Total Contribution	24.46%	\$197,380	27.53%(4)	\$222,107



<sup>(1)</sup> Includes elected officials (Board of Supervisors, Sheriff, District Attorney and Assessor).
(2) Based on June 30, 2014 projected annual payroll, see page 20.
(3) Before adjustment to reflect most County members in the legacy tiers agreeing to pick up an additional portion of the total Normal Cost in 2014/2015.
(4) The employer rate after the adjustment in footnote (3) is 26.70% for 2014/2015.

## **Recommended Employer Contribution Rates (Dollar Amounts in Thousands)**

Superior Court Only	June 30 Actuarial	,		e 30, 2013 ial Valuation
Miscellaneous – Tier 1 Members	Rate	Estimated Annual Amount <sup>(1)</sup>	Rate	Estimated Annual Amount <sup>(1)</sup>
Normal Cost	11.80%	\$94	14.65%	\$117
UAAL	6.75%	54	8.26%	66
Total Contribution	18.55%	\$148	22.91%	\$183
Miscellaneous – Tier 2 Members				
Normal Cost	10.79%	\$106	12.45%	\$123
UAAL	6.75%	67	8.26%	81
Total Contribution	17.54%	\$173	20.71%	\$204
Miscellaneous – Tier 3 Members				
Normal Cost	13.90%	\$5,752	15.03%	\$6,220
UAAL	6.75%	2,793	8.26%	3,418
Total Contribution	20.65%	\$8,545	23.29%	\$9,638
Miscellaneous – Tier 5 Members				
Normal Cost	8.12%	\$51	8.88%	\$55
UAAL	6.75%	42	8.26%	52
Total Contribution	14.87%	\$93	17.14%	\$107
All Superior Court Categories Combined				
Normal Cost	13.71%	\$6,003	14.88%	\$6,515
UAAL	6.75%	2,956	8.26%	3,617
Total Contribution	20.46%	\$8,959	23.14%	\$10,132

<sup>(1)</sup> Based on June 30, 2014 projected annual payroll, see page 20.

Note: Superior Court members have not agreed to pick up an additional portion of the total Normal Cost in 2014/2015 (or in 2015/2016). For this reason, we are including for the first time a separate breakout of the employer rates for the Superior Court.



## Recommended Employer Contribution Rates (Dollar Amounts in Thousands)

District Only	June 30 Actuarial	*	June 30, 2013 Actuarial Valuation	
		Estimated Annual		Estimated Annual
Miscellaneous – Tier 1 Members	Rate	Amount <sup>(1)</sup>	Rate	Amount <sup>(1)</sup>
Normal Cost	11.80%	\$33	14.59%	\$41
UAAL	14.36%	40	15.41%	43
Total Contribution	26.16%	\$73	30.00%	\$84
Miscellaneous – Tier 3 Members				
Normal Cost	13.90%	\$3,831	15.09%	\$4,159
UAAL	14.36%	3,958	15.41%	4,247
Total Contribution	28.26%	\$7,789	30.50%	\$8,406
Miscellaneous – Tier 5 Members				
Normal Cost	8.12%	\$128	8.78%	\$139
UAAL	14.36%	227	15.41%	244
Total Contribution	22.48%	\$355	24.19%	\$383
All District Categories Combined				
Normal Cost	13.57%	\$3,992	14.75%	\$4,339
UAAL	14.36%	4,225	15.41%	4,534
Total Contribution	27.93%	\$8,217	30.16%	\$8,873
All County and District Categories				
Combined				
Normal Cost	14.05%	\$123,704	16.15%	\$142,109
UAAL	10.32%	90,852	11.25%	99,003
Total Contribution	24.37%	\$214,556	27.40% <sup>(2)</sup>	\$241,112

Note: District members have not agreed to pick up an additional portion of the total Normal Cost in 2014/2015 (or in 2015/2016).



Based on June 30, 2014 projected annual payroll, see page 20.
Before adjustment to reflect most County members in the legacy tiers agreeing to pick up an additional portion of the total Normal Cost in 2014/2015. The employer rate after the adjustment is 26.64% for 2014/2015.

**Recommended Employer Contribution Rates (Dollar Amounts in Thousands)** 

June 30, 2014 projected annual payroll used in developing employer contribution rates on the four previous pages

	County <sup>(1)</sup>	Superior Court	<u>District</u>	<u>Total</u>
Miscellaneous Tier 1	\$10,494	\$800	\$282	\$11,576
Miscellaneous Tier 2	4,074	986	0	5,060
Miscellaneous Tier 3	538,215	41,382	27,560	607,157
Miscellaneous Tier 4	17,857	0	0	17,857
Miscellaneous Tier 5	<u>35,224</u>	<u>624</u>	<u>1,581</u>	<u>37,429</u>
Subtotal	\$605,864	\$43,792	\$29,423	\$679,079
Safety Tier 1	\$41,996	\$0	\$0	\$41,996
Safety Tier 2	143,189	0	0	143,189
Safety Tier 3	6,201	0	0	6,201
Safety Tier 4	<u>9,534</u>	<u>0</u>	<u>0</u>	<u>9,534</u>
Subtotal	\$200,920	\$0	\$0	\$200,920
Total	\$806,784	\$43,792	\$29,423	\$879,999

<sup>(1)</sup> Includes elected officials (Board of Supervisors, Sheriff, District Attorney and Assessor).



The contribution rates as of June 30, 2014 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting

future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

# Reconciliation of Recommended Contribution Rate The chart below details the changes in the recommended contribution from the prior valuation to the current year's valuation.

The chart reconciles the contribution rate from the prior valuation to the amount determined in this valuation.

# CHART 14 Reconciliation of Average Recommended Employer Contribution Rate from June 30, 2013 to June 30, 2014 (Dollar Amounts in Thousands)

	Contribution Rate	Estimated Annual Dollar Cost <sup>(1)</sup>
Average Recommended Contribution Rate as of June 30, 2013, After Reflecting Members Paying Half and Full Rates	27.40%	\$241,112
Effect of member pick up of additional Normal Cost in 2014/2015 (includes 0.15% due to more members paying full rate)	-0.76%	(6,688)
Average Recommended Contribution Rate as of June 30, 2013, After Reflecting Members Paying Half and Full Rates and Member Pick Up of Additional Normal Cost	26.64%	\$234,424
Effect of investment gains	-0.32%	(2,816)
Effect of difference in actual versus expected individual salary increases	-1.14%	(10,032)
Effect of increase in UAAL rate from lower than expected increase in total payroll	0.36%	3,168
Effect of changes in actuarial assumptions	-0.59%	(5,192)
Effect of member pick up of additional Normal Cost in 2015/2016	-0.59%	(5,192)
Effect of demographic changes and other actuarial (gains)/losses <sup>(2)</sup>	0.01%	<u>196</u>
Subtotal	-2.27%	(19,868)
Average Recommended Contribution Rate as of June 30, 2014, After Reflecting Members Paying Half and Full Rates and Member Pick Up of Additional Normal Cost in	24.37%	\$214,556

<sup>(1)</sup> Based on June 30, 2014 projected annual payroll of \$879,999,000.



<sup>(2)</sup> Primarily due to change in the proportion of members paying half and full rates from June 30, 2013 to June 30, 2014.

The member contribution rates as of June 30, 2014 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

Reconciliation of Recommended Contribution Rate
The chart below details the changes in the recommended
member contribution rate from the prior valuation to the
current year's valuation.

The chart reconciles the member contribution rate from the prior valuation to the amount determined in this valuation.

# CHART 15 Reconciliation of Average Recommended Member Contribution Rate from June 30, 2013 to June 30, 2014 (Dollar Amounts in Thousands)

	Contribution Rate	Estimated Amount <sup>(1)</sup>
Average Recommended Contribution Rate as of June 30, 2013, After Reflecting Members Paying Half and Full Rates	6.39% <sup>(2)</sup>	\$56,232
Effect of member pick up of additional Normal Cost in 2014/2015 (includes 0.15% due to more members paying full rate)	0.78%	6,864
Average Recommended Contribution Rate as of June 30, 2013, After Reflecting Members Paying Half and Full Rates and Member Pick Up of Additional Normal Cost	7.17%	\$63,096
Effect of changes in actuarial assumptions	-0.20%	(1,760)
Effect of reduction in COLA offset reserve	0.03%	264
Effect of member pick up of additional Normal Cost in 2015/2016	0.62%	5,456
Effect of demographic changes <sup>(3)</sup>	<u>0.17%</u>	<u>1,496</u>
Subtotal	0.62%	5,456
Average Recommended Contribution Rate as of June 30, 2014, After Reflecting Members Paying Half and Full Rates and Member Pick Up of Additional Normal Cost	7.79% <sup>(2)</sup>	\$68,552

<sup>(1)</sup> Based on June 30, 2014 projected annual payroll of \$879,999,000.

Primarily due to change in the proportion of salaries between the membership tiers.



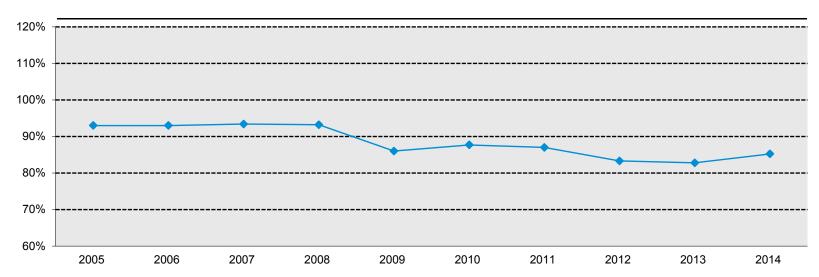
<sup>(2)</sup> Rates have been adjusted to reflect a reserve carried by the Board to reduce part of the COLA contributions.

### E. FUNDED RATIO

A critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the actuarial value of assets to the actuarial accrued liabilities of the plan. High ratios indicate a well-funded plan that is well positioned to pay benefits when they are due. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other changes.

The Chart below depicts a history of the funded ratio for the Plan.

CHART 16 Funded Ratio





### F. VOLATILITY RATIOS

Retirement plans are subject to volatility in the level of required contributions. This volatility tends to increase as retirement plans become more mature.

The Asset Volatility Ratio (AVR), which is equal to the market value of assets divided by total payroll, provides an indication of the potential contribution volatility for any given level of investment volatility. A higher AVR indicates that the plan is subject to a greater level of contribution volatility. This is a current measure since it is based on the current level of assets.

For SCERS, the current AVR is 8.3. This means that a 1% asset gain/(loss) (relative to the assumed investment return) translates to 8.3% of one-year's payroll. Since SCERS amortizes actuarial gains and losses over a period of 20 years as of June 30, 2014, there would be a 0.6% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The Liability Volatility Ratio (LVR), which is equal to the

Actuarial Accrued Liability divided by payroll, provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. This is because, over an extended period of time, the plan's assets should track the plan's liabilities. For example, if a plan is 50% funded on a market value basis, the liability volatility ratio would be double the asset volatility ratio and the plan sponsor should expect contribution volatility to increase over time as the plan becomes better funded. The LVR also indicates how volatile contributions will be in response to changes in the Actuarial Accrued Liability due to actual experience or to changes in actuarial assumptions.

For SCERS, the current LVR is 9.8. This is about 17% higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long-term. These ratios are not only sensitive to changes in assets and liability but also to changes in payroll. A comparative schedule of assets, liabilities and payroll is provided in Section 4, Exhibit III.

This chart shows how the asset and liability volatility ratios have varied over time.

CHART 17
Volatility Ratios for Years Ended June 30, 2009 – 2014

Year Ended June 30	Asset Volatility Ratio	Liability Volatility Ratio
2009	4.6	6.9
2010	5.5	7.8
2011	7.0	8.4
2012	6.9	9.0
2013	7.7	9.4
2014	8.3	9.8



SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

EXHIBIT A

Table of Plan Coverage
i. Miscellaneous Tier 1

	Year Ende	ed June 30	– Change From Prior Year
Category	2014	2013	
Active members in valuation			
Number	149	191	-22.0%
Average age	59.44	58.9	N/A
Average service	33.3	32.6	N/A
Projected total compensation <sup>(1)</sup>	\$11,576,136	\$14,787,229	-21.7%
Projected average compensation	\$77,692	\$77,420	0.4%
Account balances	\$23,246,783	\$29,628,245	-21.5%
Total active vested members	149	191	-22.0%
Vested terminated members			
Number <sup>(2)</sup>	74	87	-14.9%
Average age	62.1	61.4	N/A
Retired members			
Number in pay status	3,053	3,122	-2.2%
Average age	73.9	73.5	N/A
Average monthly benefit	\$3,194	\$3,073	3.9%
Disabled members			
Number in pay status	209	213	-1.9%
Average age	74.6	73.7	N/A
Average monthly benefit	\$2,061	\$2,004	2.8%
Beneficiaries			
Number in pay status	759	760	-0.1%
Average age	76.9	76.6	N/A
Average monthly benefit	\$1,568	\$1,512	3.7%

<sup>(1)</sup> Projected compensation was calculated by increasing the annualized compensation earned during 2013-2014 by 3.50%.



<sup>(2)</sup> Includes terminated members due a refund of contributions.

SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

EXHIBIT A

Table of Plan Coverage
ii. Miscellaneous Tier 2

Category	Year Ended June 30		
	2014	2013	Change From Prior Year
Active members in valuation			
Number	74	84	-11.9%
Average age	54.2	53.8	N/A
Average service	23.8	22.8	N/A
Projected total compensation <sup>(1)</sup>	\$5,059,515	\$5,526,399	-8.4%
Projected average compensation	\$68,372	\$65,790	3.9%
Account balances	\$5,591,845	\$5,965,917	-6.3%
Total active vested members	74	84	-11.9%
Vested terminated members			
Number <sup>(2)</sup>	205	213	-3.8%
Average age	55.6	55.1	N/A
Retired members			
Number in pay status	299	286	4.5%
Average age	67.4	66.8	N/A
Average monthly benefit	\$995	\$993	0.2%
Disabled members			
Number in pay status	33	32	3.1%
Average age	64.8	64.1	N/A
Average monthly benefit	\$871	\$892	-2.4%
Beneficiaries			
Number in pay status	43	39	10.3%
Average age	68.6	68.2	N/A
Average monthly benefit	\$692	\$641	8.0%

<sup>(1)</sup> Projected compensation was calculated by increasing the annualized compensation earned during 2013-2014 by 3.50%.



 $<sup>^{(2)}</sup>$  Includes terminated members due a refund of contributions.

SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

EXHIBIT A

Table of Plan Coverage
iii. Miscellaneous Tier 3

	Year End	ed June 30	
Category	2014	2013	– Change From Prior Year
Active members in valuation			
Number	8,782	9,315	-5.7%
Average age	48.8	48.1	N/A
Average service	13.6	12.8	N/A
Projected total compensation <sup>(1),(2)</sup>	\$607,156,789	\$634,266,710	-4.3%
Projected average compensation	\$69,137	\$68,091	1.5%
Account balances	\$429,857,893	\$423,142,349	1.6%
Total active vested members	8,343	8,587	-2.8%
Vested terminated members			
Number <sup>(3)</sup>	2,343	2,398	-2.3%
Average age	47.5	46.9	N/A
Retired members			
Number in pay status	3,166	2,818	12.3%
Average age	66.3	66.1	N/A
Average monthly benefit	\$2,207	\$2,114	4.4%
Disabled members			
Number in pay status	235	224	4.9%
Average age	61.9	61.3	N/A
Average monthly benefit	\$1,735	\$1,688	2.8%
Beneficiaries			
Number in pay status	287	252	13.9%
Average age	64.1	63.5	N/A
Average monthly benefit	\$932	\$887	5.1%

<sup>(1)</sup> Projected compensation was calculated by increasing the annualized compensation earned during 2013-2014 by 3.50%.



 $<sup>^{(2)}</sup>$  For members without a salary reported for the June 30, 2014 valuation, we have assigned them an annual salary of \$69,345.

<sup>(3)</sup> Includes terminated members due a refund of contributions.

SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

EXHIBIT A

Table of Plan Coverage
iv. Miscellaneous Tier 4

ctive members in valuation  Number  Average age  Average service  Projected total compensation <sup>(1)</sup> Projected average compensation  Account balances  Total active vested members  ested terminated members  Number <sup>(2)</sup> Average age	Year Ende		
Category	2014	2013	– Change From Prior Year
Active members in valuation			
Number	296	300	-1.3%
Average age	39.1	37.4	N/A
	1.8	0.9	N/A
Projected total compensation <sup>(1)</sup>	\$17,857,160	\$17,108,752	4.4%
	\$60,328	\$57,029	5.8%
Account balances	\$2,302,207	\$1,051,762	118.9%
Total active vested members	7	1	600.0%
Vested terminated members			
Number <sup>(2)</sup>	46	37	24.3%
Average age	38.7	40.4	N/A
Retired members			
Number in pay status			N/A
Average age			N/A
Average monthly benefit			N/A
Disabled members			
Number in pay status			N/A
Average age			N/A
Average monthly benefit			N/A
Beneficiaries			
Number in pay status			N/A
Average age			N/A
Average monthly benefit			N/A

<sup>(1)</sup> Projected compensation was calculated by increasing the annualized compensation earned during 2013-2014 by 3.50%.



<sup>(2)</sup> Includes terminated members due a refund of contributions.

SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

# EXHIBIT A Table of Plan Coverage v. Miscellaneous Tier 5

	Year End	ed June 30	
Category	2014	2013	Change From Prior Year
Active members in valuation			
Number	784	223	251.6%
Average age	37.1	38.5	N/A
Average service	0.7	0.3	N/A
Projected total compensation <sup>(1)</sup>	\$37,428,672	\$10,099,684	270.6%
Projected average compensation	\$47,741	\$45,290	5.4%
Account balances	\$1,886,595	\$194,755	868.7%
Total active vested members	2		N/A
Vested terminated members			
Number <sup>(2)</sup>	56	11	409.1%
Average age	41.1	43.3	N/A
Retired members			
Number in pay status			N/A
Average age			N/A
Average monthly benefit			N/A
Disabled members			
Number in pay status			N/A
Average age			N/A
Average monthly benefit			N/A
Beneficiaries			
Number in pay status			N/A
Average age			N/A
Average monthly benefit			N/A

<sup>(1)</sup> Projected compensation was calculated by increasing the annualized compensation earned during 2013-2014 by 3.50%.



<sup>(2)</sup> Includes terminated members due a refund of contributions.

SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

EXHIBIT A

Table of Plan Coverage
vi. Safety Tier 1

	Year Ende	ed June 30	
Category	2014	2013	– Change From Prior Year
Active members in valuation			
Number	338	391	-13.6%
Average age	49.7	49.1	N/A
Average service	23.1	22.7	N/A
Projected total compensation <sup>(1),(2)</sup>	\$41,995,513	\$47,570,559	-11.7%
Projected average compensation	\$124,247	\$121,664	2.1%
Account balances	\$56,732,469	\$61,106,741	-7.2%
Total active vested members	338	391	-13.6%
Vested terminated members			
Number <sup>(3)</sup>	102	114	-10.5%
Average age	50.0	49.7	N/A
Retired members			
Number in pay status	1,149	1,099	4.5%
Average age	64.9	64.7	N/A
Average monthly benefit	\$6,353	\$6,128	3.7%
Disabled members			
Number in pay status	200	204	-2.0%
Average age	64.3	63.5	N/A
Average monthly benefit	\$4,152	\$4,077	1.8%
Beneficiaries			
Number in pay status	296	286	3.5%
Average age	66.4	66.2	N/A
Average monthly benefit	\$2,750	\$2,688	2.3%

<sup>(1)</sup> Projected compensation was calculated by increasing the annualized compensation earned during 2013-2014 by 3.50%.



<sup>(2)</sup> For members without a salary reported for the June 30, 2014 valuation, we have assigned them an annual salary of \$124,200.

<sup>(3)</sup> Includes terminated members due a refund of contributions.

SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

EXHIBIT A

Table of Plan Coverage
vii. Safety Tier 2

	Year End	ed June 30	
Category	2014	2013	– Change From Prior Year
Active members in valuation			
Number	1,407	1,424	-1.2%
Average age	41.9	41.1	N/A
Average service	13.5	12.6	N/A
Projected total compensation <sup>(1),(2)</sup>	\$143,189,025	\$141,349,687	1.3%
Projected average compensation	\$101,769	\$99,262	2.5%
Account balances	\$110,921,100	\$97,746,951	13.5%
Total active vested members	1,378	1,354	1.8%
Vested terminated members			
Number <sup>(3)</sup>	366	388	-5.7%
Average age	40.3	39.3	N/A
Retired members			
Number in pay status	246	232	6.0%
Average age	64.8	64.4	N/A
Average monthly benefit	\$4,523	\$4,386	3.1%
Disabled members			
Number in pay status	48	43	11.6%
Average age	52.9	53.5	N/A
Average monthly benefit	\$3,019	\$2,988	1.0%
Beneficiaries			
Number in pay status	26	24	8.3%
Average age	53.9	53.4	N/A
Average monthly benefit	\$2,138	\$2,204	-3.0%

<sup>(1)</sup> Projected compensation was calculated by increasing the annualized compensation earned during 2013-2014 by 3.50%.



<sup>(2)</sup> For members without a salary reported for the June 30, 2014 valuation, we have assigned them an annual salary of \$101,430.

<sup>&</sup>lt;sup>(3)</sup> Includes terminated members due a refund of contributions.

SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

EXHIBIT A

Table of Plan Coverage
viii. Safety Tier 3

	Year Ende	ed June 30	
Category	2014	2013	– Change From Prior Year
Active members in valuation			
Number	74	71	4.2%
Average age	34.6	33.9	N/A
Average service	2.6	1.7	N/A
Projected total compensation <sup>(1)</sup>	\$6,201,324	\$5,181,121	19.7%
Projected average compensation	\$83,802	\$72,974	14.8%
Account balances	\$1,367,190	\$725,146	88.5%
Total active vested members	4	3	33.3%
Vested terminated members			
Number <sup>(2)</sup>	4	1	300.0%
Average age	34.2	30.3	N/A
Retired members			
Number in pay status			N/A
Average age			N/A
Average monthly benefit			N/A
Disabled members			
Number in pay status			N/A
Average age			N/A
Average monthly benefit			N/A
Beneficiaries			
Number in pay status			N/A
Average age			N/A
Average monthly benefit			N/A

<sup>(1)</sup> Projected compensation was calculated by increasing the annualized compensation earned during 2013-2014 by 3.50%.



<sup>(2)</sup> Includes terminated members due a refund of contributions.

SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

EXHIBIT A

Table of Plan Coverage
ix. Safety Tier 4

	Year Ende	ed June 30	
Category	2014	2013	– Change From Prior Year
Active members in valuation			
Number	145	27	437.0%
Average age	32.0	32.2	N/A
Average service	1.4	0.6	N/A
Projected total compensation <sup>(1)</sup>	\$9,533,877	\$1,765,567	440.0%
Projected average compensation	\$65,751	\$65,391	0.6%
Account balances	\$1,063,328	\$97,790	987.4%
Total active vested members	10	1	900.0%
Vested terminated members			
Number <sup>(2)</sup>	5		N/A
Average age	30.4		N/A
Retired members			
Number in pay status			N/A
Average age			N/A
Average monthly benefit			N/A
Disabled members			
Number in pay status			N/A
Average age			N/A
Average monthly benefit			N/A
Beneficiaries			
Number in pay status			N/A
Average age			N/A
Average monthly benefit			N/A

<sup>(1)</sup> Projected compensation was calculated by increasing the annualized compensation earned during 2013-2014 by 3.50%.



<sup>(2)</sup> Includes terminated members due a refund of contributions.

**EXHIBIT B** 

### i. Miscellaneous Tier 1

	Years of Service										
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over	
Under 25											
25 - 29											
										-	
30 - 34											
35 - 39										-	
40 - 44											
45 - 49											
50 - 54	27			1		2		21	3	-	
	\$69,925			\$39,414		\$59,546		\$71,195	\$78,122	-	
55 - 59	59				1	4	4	32	18	-	
	79,768				\$107,102	60,739	\$97,209	76,757	83,954	-	
60 - 64	45					1	4	15	19	$\epsilon$	
	78,553					79,614	101,376	80,443	75,223	\$68,981	
65 - 69	16		1		2	1	1	6	3	2	
	85,188		\$148,002		49,033	76,833	164,334	84,948	89,237	49,192	
70 & over	2								1	1	
	41,991								41,420	42,561	
Total	149		1	1	3	8	9	74	44	ç	
	\$77,692		\$148,002	\$39,414	\$68,389	\$64,812	\$106,519	\$76,590	\$79,180	\$61,648	



**EXHIBIT B** 

### ii. Miscellaneous Tier 2

	Years of Service										
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over	
Under 25										-	
										-	
25 - 29										-	
										-	
30 - 34										-	
35 - 39										-	
										-	
40 - 44	2					2					
	\$61,086					\$61,086					
45 - 49	19			2	1	13	3				
	65,444			\$53,065	\$75,030	68,034	\$59,276				
50 - 54	18				2	12	3	1			
	66,520				64,439	69,361	63,788	\$44,778		-	
55 - 59	23			1		11	10	1			
	73,600			54,819		75,523	74,321	64,015		-	
60 - 64	10			1		4	4	1			
	65,840			26,428		78,387	68,454	44,606		-	
65 - 69	1					1					
	82,885					82,885				-	
70 & over	1					1				-	
	62,487					62,487				-	
Total	74			4	3	44	20	3		-	
	\$68,372			\$46,844	\$67,969	\$71,105	\$69,311	\$51,133		_	



**EXHIBIT B** 

iii. Miscellaneous Tier 3

	Years of Service											
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over		
Under 25	3	3										
	\$50,236	\$50,236										
25 - 29	166	46	117	3								
	48,835	43,797	\$50,746	\$51,563								
30 - 34	651	94	469	87	1							
	59,787	58,393	60,320	58,533	\$50,156							
35 - 39	1,081	79	519	436	46	1						
	64,531	62,011	64,920	63,869	69,647	\$115,284						
40 - 44	1,278	53	445	527	210	38	5					
	70,038	64,404	66,136	69,013	81,687	73,397	\$70,374					
45 - 49	1,433	65	348	454	293	213	54	6				
	70,995	60,258	65,719	65,952	79,225	79,009	81,138	\$97,239				
50 - 54	1,586	43	312	430	277	306	181	34	3	3		
	72,796	62,163	64,875	65,893	79,835	77,495	84,345	82,854	\$98,251			
55 - 59	1,450	33	276	357	266	246	195	73	4	ļ - ·		
	73,309	77,033	63,442	64,272	71,629	80,713	88,213	93,253	95,891			
60 - 64	829	17	174	241	164	121	86	26				
	68,584	61,769	62,907	63,296	71,606	76,008	77,690	76,321				
65 - 69	254	7	69	72	59	23	16	8				
	67,401	52,208	68,682	64,904	67,286	68,447	72,717	79,328				
70 & over	51	1	11	16	14	5	3	1				
	63,657	36,985	68,095	59,509	62,082	72,693	66,613	75,888				
Total	8,782	441	2,740	2,623	1,330	953	540	148	7	7		
	\$69,137	\$60,206	\$63,652	\$65,408	\$76,219	\$78,108	\$83,789	\$87,181	\$96,903	3		



**EXHIBIT B** 

### iv. Miscellaneous Tier 4

	Years of Service										
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over	
Under 25	9	9									
	\$48,043	\$48,043									
25 - 29	56	55	1								
	56,998	56,807	\$67,488								
30 - 34	62	60	2								
	57,312	57,309	57,403								
35 - 39	53	52	1								
	60,212	60,562	42,001								
40 - 44	29	29									
	52,104	52,104									
45 - 49	29	29									
	68,075	68,075									
50 - 54	31	30		1							
	60,962	61,777		\$36,489							
55 - 59	18	17	1								
	74,009	73,646	80,180								
60 - 64	8	8									
	68,571	68,571									
65 - 69											
70 & over	1	1									
	232,550	232,550									
Total	296	290	5	1							
	\$60,328	\$60,401	\$60,895	\$36,489							



**EXHIBIT B** 

### v. Miscellaneous Tier 5

	Years of Service										
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over	
Under 25	47	47								-	
	\$38,557	\$38,557								-	
25 - 29	191	191								-	
	45,866	45,866									
30 - 34	163	163									
	49,160	49,160									
35 - 39	109	109									
	47,792	47,792									
40 - 44	101	101									
	47,536	47,536									
45 - 49	66	65	1								
	50,149	50,362	\$36,268								
50 - 54	60	60									
	49,289	49,289									
55 - 59	25	25									
	51,872	51,872									
60 - 64	21	21									
	57,836	57,836									
65 - 69	1	1									
	54,062	54,062									
70 & over											
Total	784	783	1								
	\$47,741	\$47,755	\$36,268								



SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

**EXHIBIT B** 

vi. Safety Tier 1

	Years of Service										
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over	
Under 25										-	
										-	
25 - 29										-	
										-	
30 - 34										-	
										-	
35 - 39	1				1					-	
	\$106,355				\$106,355					-	
40 - 44	49		1		21	26	1			-	
	121,184		\$59,223		110,248	\$132,472	\$119,304			-	
45 - 49	149			2	26	70	50	1		-	
	129,711			\$145,386	119,470	127,259	136,894	\$177,189		-	
50 - 54	95			3	9	39	39	5		-	
	122,869			129,090	112,701	119,237	123,622	159,894		-	
55 - 59	41			2	10	13	14	2		-	
	112,631			73,295	102,107	114,574	120,824	134,603		-	
60 - 64	3					1	1	1		-	
	111,258					116,616	113,281	103,877		-	
65 - 69										-	
										-	
70 & over										-	
										-	
Total	338		1	7	67	149	105	9		-	
	\$124,247		\$59,223	\$117,804	\$112,883	\$124,891	\$129,429	\$149,971		_	



**EXHIBIT B** 

vii. Safety Tier 2

	Years of Service										
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over	
Under 25									-		
									-		
25 - 29	27	8	18	1					-		
	\$93,435	\$85,409	\$95,853	\$114,131					-		
30 - 34	204	8	136	60					-		
	95,990	67,083	94,029	104,290					-		
35 - 39	367	4	98	211	53	1			-		
	96,251	106,586	87,953	95,572	\$113,524	\$95,795			-		
40 - 44	400	4	32	148	199	17			-		
	106,861	68,440	91,692	100,071	113,782	122,540			-		
45 - 49	232		18	61	98	50	5		-		
	106,880		90,661	105,218	108,642	110,931	\$110,478		-		
50 - 54	102	1	11	28	37	16	9		-		
	104,843	113,968	101,957	99,781	110,859	104,955	98,174		-		
55 - 59	51	4	11	7	14	7	4	3		- 1	
	101,571	110,825	112,069	102,684	103,423	82,744	79,142	\$106,699	\$121,50	5 -	
60 - 64	23		6	9	4	2	2		-		
	97,763		96,654	104,626	88,821	93,366	92,490		-		
65 - 69	1			1					-		
	97,178			97,178					-		
70 & over									-		
									-		
Total	1,407	29	330	526	405	93	20	3		1 -	
	\$101,769	\$85,424	\$92,827	\$99,463	\$111,633	\$109,363	\$96,875	\$106,699	\$121,500	· -	



**EXHIBIT B** 

viii. Safety Tier 3

	Years of Service										
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over	
Under 25	2	2									
	\$70,055	\$70,055								-	
25 - 29	30	27	3							-	
	78,853	80,628	\$62,886								
30 - 34	17	17									
	85,262	85,262									
35 - 39	10	9			1						
	81,020	78,730			\$101,635						
40 - 44	7	7									
	100,081	100,081									
45 - 49	1	1									
	80,874	80,874									
50 - 54	3	3									
	93,082	93,082									
55 - 59	3	3									
	87,781	87,781									
60 - 64	1	1									
	111,936	111,936									
65 - 69											
70 & over											
Total	74	70	3		1						
	\$83,802	\$84,443	\$62,886		\$101,635						



**EXHIBIT B** 

ix. Safety Tier 4

	Years of Service										
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over	
Under 25	25	25								-	
	\$69,829	\$69,829								-	
25 - 29	54	54								-	
	63,903	63,903								-	
30 - 34	30	24	6							_	
	59,339	61,677	\$49,988							_	
35 - 39	14	12	1	1						_	
	65,510	67,679	49,543	\$55,450							
40 - 44	8	7		1						-	
	70,001	69,409		74,143						_	
45 - 49	4	3	1							-	
	56,249	45,835	87,492							-	
50 - 54	7	7								_	
	85,216	85,216									
55 - 59	2	2								-	
	86,310	86,310								_	
60 - 64	1	1								-	
	85,942	85,942								_	
65 - 69										-	
										-	
70 & over										-	
										-	
Total	145	135	8	2						_	
	\$65,751	\$66,425	\$54,621	\$64,797						-	



# SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

EXHIBIT C

Reconciliation of Member Data – June 30, 2013 to June 30, 2014

	Active Members	Vested Terminated Members <sup>(1)</sup>	Pensioners	Disableds	Beneficiaries	Total
Number as of June 30, 2013	12,026	3,249	7,557	716	1,361	24,909
New members	762	55	0	0	107	924
Terminations – with vested rights	-254	254	0	0	0	0
Contributions refunds	-104	-135	0	0	0	-239
Retirements	-415	-131	546	0	0	0
New disabilities	-11	-10	-5	26	0	0
Return to work	54	-53	-1	0	0	0
Deaths	-9	-28	-184	-17	-56	-294
Data adjustments	0	0	0	0	-1	-1
Number as of June 30, 2014	12,049	3,201	7,913	725	1,411	25,299

<sup>(1)</sup> Includes terminated members due a refund of member contributions.



# SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

EXHIBIT D
Summary Statement of Income and Expenses on an Actuarial Value Basis

	Year Ended J	une 30, 2014	Year Ended June 30, 2013		
Contribution income:					
Employer contributions	\$210,503,000		\$189,664,000		
Employee contributions	57,635,000		68,242,000		
Net contribution income		\$268,138,000		\$257,906,000	
Investment income:					
Interest, dividends and other income	\$172,339,000		\$157,323,000		
Recognition of capital appreciation	477,209,000		219,533,000		
Less investment and administrative fees	<u>-54,831,000</u>		<u>-43,333,000</u>		
Net investment income		594,718,000		333,523,000	
Total income available for benefits		\$862,855,000		\$591,429,000	
Less benefit payments:					
Benefits paid	-\$344,890,000		-\$320,828,000		
Withdrawal of contributions	<u>-2,729,000</u>		<u>-2,739,000</u>		
Net benefit payments		-\$347,619,000		-\$323,567,000	
Change in reserve for future benefits		\$515,236,000		\$267,862,000	



SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

**EXHIBIT E**Summary Statement of Assets

	Year Ended J	lune 30, 2014	Year Ended June 30, 2013		
Cash equivalents		\$430,776,000		\$574,066,000	
Accounts receivable:					
Securities sold	\$74,836,000		\$179,053,000		
Accrued investment income	29,410,000		19,758,000		
Employee and employer contributions	7,923,000		<u>8,328,000</u>		
Total accounts receivable		112,169,000		207,139,000	
Investments:					
Equities	\$4,080,864,000		\$3,432,020,000		
Hedge Funds	759,869,000		561,309,000		
Opportunities	76,290,000		54,030,000		
Fixed income investments	1,485,471,000		1,301,670,000		
Real estate	1,244,761,000		1,062,269,000		
Securities lending collateral	313,536,000		<u>255,615,000</u>		
Total investments at market value		7,960,791,000		6,666,913,000	
Other assets		2,739,000		6,367,000	
Total assets		\$8,506,475,000		\$7,454,485,000	
Less accounts payable:					
Accounts payable and other liabilities	-\$39,347,000		-\$26,822,000		
Investment trades, mortgages, and warrants payable	-343,591,000		-384,053,000		
Securities lending liability	-313,536,000		-255,615,000		
Total accounts payable		-\$696,474,000		-\$666,490,000	
Net assets at market value		<u>\$7,810,001,000</u>		\$6,787,995,000	
Net assets at actuarial value		<u>\$7,312,993,000</u>		<u>\$6,797,757,000</u>	
Net assets at valuation value		\$7,277,721,000		\$6,805,319,000	



### **EXHIBIT F**

#### **Actuarial Balance Sheet**

An overview of the Plan's funding is given by an Actuarial Balance Sheet. In this approach, we first determine the amount and timing of all future payments that will be made by the Plan for current participants. We then discount these payments at the valuation interest rate to the date of the valuation, thereby determining their present value. We refer to this present value as the "liability" of the Plan.

Second, we determine how this liability will be met. These actuarial "assets" include the net amount of assets already accumulated by the Plan, the present value of future member contributions, the present value of future employer normal cost contributions, and the present value of future employer amortization payments.

### **Actuarial Balance Sheet (Dollar Amounts in Thousands)**

Assets	Basic	<u>Cola</u>	<u>Total</u>
1. Total valuation assets			
a. Valuation value assets	\$4,961,978	\$2,315,743	\$7,277,721
b. Balance of transfer to offset member COLA rate	0	22,964	22,964
c. Retiree health benefit reserve	0	0	0
d. Adjustment to 1a. for surplus/(deficit) for withdrawn employers (preliminary) <sup>(1)</sup>	-33,242	0	-33,242
e. Contingency Reserve	45,550	0	45,550
2. Present value of future contributions by members	327,940	104,284	432,224
3. Present value of future employer contributions for:			
a. Entry age normal cost	818,355	137,258	955,613
b. Unfunded actuarial accrued liability	<u>1,111,774</u>	156,161	1,267,935
4. Total current and future assets	\$7,232,355	\$2,736,410	\$9,968,765
Liabilities			
5. Present value of retirement allowances payable to present retired members	\$2,913,503	\$1,701,133	\$4,614,636
6. Present value of retirement allowances to be granted			
a. Active members	4,043,661	973,557	5,017,218
b. Inactive members with vested rights	262,883	61,720	324,603
7. Retiree health benefit reserve	0	0	0
8. Surplus/(deficit) for withdrawn employers (preliminary) <sup>(1)</sup>	-33,242	0	-33,242
9. Contingency Reserve	45,550	0	45,550
10. Total liabilities	\$7,232,355	\$2,736,410	\$9,968,765

<sup>(1)</sup> Based on the latest estimates available as of June 30, 2006 for Library Authority, June 30, 2007 for Air Quality and June 30, 2013 for Florin Fire adjusted with interests at the assumed rates of investment return to June 30, 2014.



### **EXHIBIT G**

### Summary of Reported Asset Information as of June 30, 2014

### Reserves

# **Included in Valuation Value of Assets**

Employee reserve	\$713,612,615
Employer reserve	2,564,792,426
Retiree reserve	3,973,777,830
Retiree death benefit reserve	<u>15,260,018</u>
Subtotal: Preliminary Valuation Value of Assets <sup>(1)</sup>	7,267,442,889

# **Not Included in Valuation Value of Assets**

Retiree health benefit reserve	\$0
Contingency Reserve	<u>45,549,661</u>
Subtotal: Actuarial Value of Assets	\$7,312,992,550
Market stabilization reserve	497,008,450
Total Market Value of Assets	\$7,810,001,000

<sup>(1)</sup> Please note that the final Valuation Value of Assets (i.e. \$7,277,720,991) is calculated by taking the preliminary Valuation Value of Assets and adjusting for the balance of transfer to offset member COLA rate and for the surplus/(deficit) for withdrawn employers.



EXHIBIT G
Summary of Reported Asset Information as of June 30, 2014 (Continued) – Change in Reserves

	Balance at	Interest	G	D #	TD 4	Balance at
	06/30/2013	Credited	Contributions	Benefits	Transfers	06/30/2014
Employee Reserve	\$699,964,648	\$11,316,853	\$57,634,896	\$(2,729,250)	\$(52,574,532)	\$713,612,615
Employer Reserve	2,433,921,661	208,144,850	210,503,324	(297,019)	(287,480,390)	2,564,792,426
Retiree Reserve	3,649,191,924	328,418,659	0	(343,887,675)	340,054,922	3,973,777,830
Death Benefit Reserve	14,678,436	1,287,165	0	(705,583)	0	15,260,018
Subtotal	\$6,797,756,669	\$549,167,527	\$268,138,220	\$(347,619,527)	\$0	\$7,267,442,889
Contingency Reserve	\$0	\$45,549,661	\$0	\$0	\$0	\$45,549,661
Retiree Health Benefit Reserve	0	0	0	\$0	0	0
Subtotal	\$0	\$45,549,661	\$0	\$0	\$0	\$45,549,661
Total Allocated Reserves	\$6,797,756,669	\$594,717,188	\$268,138,220	\$(347,619,527)	\$0	\$7,312,992,550
Market Stabilization Reserve	\$(9,761,669)	\$506,770,119	<u>\$0</u>	\$0	\$0	\$497,008,450
Net Market Value of Assets	<u>\$6,787,995,000</u>	<u>\$1,101,487,307</u>	\$268,138,220	<u>\$(347,619,527)</u>	<u>\$0</u>	\$7,810,001,000



### **EXHIBIT G**

Summary of Reported Asset Information as of June 30, 2014 (Continued) – Summary of Earnings

	Per Excess Earnings Policy
Earnings from July 1, 2013 to June 30, 2014	\$1,101,487,307
Contingency Reserve	0
Subtotal:	\$1,101,487,307
Amounts Credited for:	
Market Stabilization Reserve	\$(506,770,119)
Regular Interest Crediting	(503,617,866)
Subtotal	\$(1,010,387,985)
Net Earnings	\$91,099,322
Amount Credited Under Excess Earnings Policy for:	
Contingency Reserve	\$45,549,661
Board Provided Supplemental Benefits	0
Amount Over Reserved Benefits	0
Employer Reserves	45,549,661
Member Future COLA Contribution Offset	0
Subtotal	\$91,099,322
Remaining Excess Earnings	<u>\$0</u>



# EXHIBIT H Development of Unfunded/(Overfunded) Actuarial Accrued Liability for Year Ended June 30, 2014

1.	Unfunded actuarial accrued liability at beginning of year	\$1,413,223,000
2.	Total normal cost	203,537,000
3.	Actual employer and member contributions	-268,138,000
4.	Interest	<u>97,535,000</u>
5.	Expected unfunded actuarial accrued liability <sup>(1)</sup>	\$1,446,157,000
6.	Actuarial (gain)/loss due to all changes:	
	(a) Investment return	-\$38,431,000
	(b) Salary increases less than expected <sup>(2)</sup>	-138,174,000
	(c) Other experience gain <sup>(2)</sup>	-17,398,000
	(d) Changes in actuarial assumptions	15,781,000
	(e) Total changes	<u>-\$178,222,000</u>
7.	Unfunded actuarial accrued liability at end of year	<u>\$1,267,935,000</u>

<sup>(1)</sup> Includes a contribution loss of about \$22 million due to the one-year lag in implementation of the contribution rates determined in the June 30, 2013 valuation.



<sup>(2)</sup> The sum of 6(b) and 6(c) is equal to the net gain of \$155.6 million shown in Section 2, Chart 9.

### **EXHIBIT I**

### **Section 415 Limitations**

Section 415 of the Internal Revenue Code (IRC) specifies the maximum benefits that may be paid to an individual from a defined benefit plan and the maximum amounts that may be allocated each year to an individual's account in a defined contribution plan.

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for noncompliance is disqualification: active participants could be taxed on their vested benefits and the IRS may seek to tax the income earned on the plan's assets.

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar amount indexed for inflation. That limit is \$210,000 for 2014 and 2015. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions.

Benefits for members in non-CalPEPRA tiers in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

Legal Counsel's review and interpretation of the law and regulations should be sought on any questions in this regard.

Contributions rates determined in this valuation have not been reduced for the Section 415 limitations. Actual limitations will result in gains as they occur.



### **EXHIBIT J**

### **Definitions of Pension Terms**

The following list defines certain technical terms for the convenience of the reader:

# Assumptions or Actuarial Assumptions:

The estimates on which the cost of the Plan is calculated including:

- (a) <u>Investment return</u> the rate of investment yield that the Plan will earn over the long-term future;
- (b) <u>Mortality rates</u> the death rates of employees and pensioners; life expectancy is based on these rates;
- (c) <u>Retirement rates</u> the rate or probability of retirement at a given age; and
- (d) <u>Turnover rates</u> the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

#### **Normal Cost:**

The amount of contributions required to fund the level cost allocated to the current year of service.

# Actuarial Accrued Liability For Actives:

The equivalent of the accumulated normal costs allocated to the years before the valuation date.

# Actuarial Accrued Liability For Pensioners:

The single sum value of lifetime benefits to existing pensioners. This sum takes account of life expectancies appropriate to the ages of the pensioners and the interest that the sum is expected to earn before it is entirely paid out in benefits.

# **Unfunded Actuarial Accrued Liability:**

The extent to which the actuarial accrued liability of the Plan exceeds (or is exceeded by) the assets of the Plan. There is a wide range of approaches to recognizing the unfunded or overfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.



### SECTION 3: Supplemental Information for the Sacramento County Employees' Retirement System

Amortization of the Unfunded (Overfunded) Actuarial Accrued Liability:

Payments made over a period of years equal in value to the Plan's unfunded or

overfunded actuarial accrued liability.

**Investment Return:** The rate of earnings of the Plan from its investments, including interest, dividends and

capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the market value gains and losses to avoid significant swings in the value of assets

from one year to the next.



EX	HIBIT I		
Su	mmary of Actuarial Valuation Results		
Th	e valuation was made with respect to the following data supplied to us:		
1.	Retired members as of the valuation date (including 1,411 beneficiaries in pay status)		10,049
2.	Members inactive during year ended June 30, 2014 with vested rights		3,201
3.	Members active during the year ended June 30, 2014		12,049
Th	e actuarial factors as of the valuation date are as follows (amounts in 000s):		
1.	Normal cost		\$192,256
2.	Present value of future benefits		9,956,457
3.	Present value of future normal costs		1,410,801
4.	Actuarial accrued liability <sup>(1)</sup>		8,545,656
	Retired members and beneficiaries	\$4,614,636	
	Inactive members with vested rights	324,603	
	Active members	3,606,417	
	Valuation value of assets <sup>(1)</sup> (\$7,810,001 at market value as reported by Retirement System)		7,277,721
5.	(\$\psi_000000 (\$\psi_000000000000000000000000000000000000		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

<sup>(1)</sup> Excludes non-valuation reserves and designations.



# **EXHIBIT I (continued)**

# **Summary of Actuarial Valuation Results**

	e determination of the recommended average employer contribution is as follows nounts in 000s):	Dollar Amount	% of Payroll
1	Total normal cost	\$192,256	21.84%
2.	Expected employee contributions	<u>-68,552</u>	<u>-7.79%</u>
3.	Employer normal cost: $(1) + (2)$	\$123,704	14.05%
4.	Amortization of unfunded actuarial accrued liability	90,852	10.32%
5.	Total recommended average employer contribution: (3) + (4)	\$214,556	24.37%
6.	Projected compensation	\$879,999	



EXHIBIT II
Schedule of Employer Contributions

Plan Year Ended June 30	Annual Required Contributions	Actual Contributions	Percentage Contributed
2009	\$177,011,005	\$177,011,005	100.0%
2010	167,141,893	167,141,893	100.0%
2011	182,920,751	182,920,751	100.0%
2012	179,098,469	179,098,469	100.0%
2013	189,663,720	189,663,720	100.0%
2014	210,503,324	210,503,324	100.0%



EXHIBIT III
Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets <sup>(1)</sup> (a)	Actuarial Accrued Liability (AAL) <sup>(1)</sup> (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (%) (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll (%) [(b) - (a)] / (c)
6/30/2009	\$5,730,215,000	\$6,661,993,000	\$931,778,000	86.0	\$968,130,000	96.2
6/30/2010	6,216,994,000	7,090,497,000	873,503,000	87.7	912,644,000	95.7
6/30/2011	6,420,824,000	7,382,897,000	962,073,000	87.0	880,766,000	109.2
6/30/2012	6,529,895,000	7,838,223,000	1,308,328,000	83.3	875,672,000	149.4
6/30/2013	6,797,757,000	8,210,980,000	1,413,223,000	82.8	877,657,000	161.0
6/30/2014	7,312,993,000	8,580,928,000	1,267,935,000	85.2	879,999,000	144.1

<sup>(1)</sup> Includes contingency reserve and retiree health benefit reserve.



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# **Supplementary Information Required by GASB**

Valuation date	June 30, 2014
Actuarial cost method	Entry Age Cost Method
Amortization method	Level percent of payroll for total unfunded liability (assuming a 3.50% payroll increase)
Remaining amortization period	21 years (declining) as of June 30, 2014 for the outstanding balance of the June 30, 2012 UAAL. The UAAL established as a result of the Early Retirement Incentive Program for LEMA members is amortized over a 10-year period, beginning June 30, 2010. Effective June 30, 2013, any changes in UAAL due to actuarial gains or losses or due to changes in actuarial assumptions or methods will be amortized over a 20-year closed period effective with each valuation. Any change in UAAL that arises due to plan amendments will be amortized over its own declining 15-year period and any change in UAAL due to retirement incentive programs will be amortized over a declining period of up to 5 years.
Asset valuation method	The market value of assets less unrecognized returns in each of the last six years. Unrecognized return is equal to the difference between actual and expected returns on a market value basis and is recognized over a seven-year period. The deferred return is further adjusted, if necessary, so that the actuarial value of assets will stay within 30% of the market value of assets. Deferred gains and losses as of June 30, 2013 have been combined and will be recognized in equal amounts over a six-year period starting July 1, 2013.
Actuarial assumptions:	
Investment rate of return <sup>(1)</sup>	7.50%
Projected salary increases <sup>(2)</sup>	4.50% to 8.50% for Miscellaneous; 5.25% to 11.50% for Safety
Cost of living adjustments	3.25% of Miscellaneous and Safety Tier 1 retirement income, 2.00% of Miscellaneous Tier 3, Tier 4 and Tier 5 and Safety Tier 2, Tier 3 and Tier 4 retirement income, and 0.00% of Miscellaneous Tier 2 retirement income.
Plan membership:	
Retired members and beneficiaries receiving benefits	10,049
Terminated members entitled to, but not yet receiving be	enefits 3,201
Active members	<u>12,049</u>
Total	25,299

<sup>(1)</sup> Includes inflation at 3.25%.
(2) Includes inflation at 3.25%, plus real across-the-board salary increase of 0.25%, plus merit and promotion increases. See Exhibit V for these increases.



### **EXHIBIT V**

### **Actuarial Assumptions/Methods**

### **Post – Retirement Mortality Rates:**

Healthy: For Miscellaneous Members and Beneficiaries: RP-2000 Combined Healthy Mortality

Table projected with Scale BB to 2022.

For Safety Members: RP-2000 Combined Healthy Mortality Table projected with

Scale BB to 2022 set back one year for males and set forward two years for females.

Disabled: For Miscellaneous Members: RP-2000 Disabled Retiree Mortality Table projected

For Miscellaneous Members: RP-2000 Disabled Retiree Mortality Table projected with Scale BB to 2022 with no age adjustment for males and set forward three years

for females.

For Safety members: RP-2000 Combined Healthy Mortality Table projected with

Scale BB to 2022 set forward two years.

The mortality tables shown above were determined to contain sufficient provision appropriate to reasonably reflect future mortality improvement, based on a review of

the mortality experience in the June 30, 2013 Actuarial Experience Study.

Member Contribution Rates: For Miscellaneous members: RP-2000 Combined Healthy Mortality Table projected

with Scale BB to 2022 weighted 40% male and 60% female.

For Safety members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2022 set back one year for males and set forward two years for females

weighted 70% male and 30% female.



### **Termination Rates Before Retirement:**

Rate (%) Mortality

	Miscellaneous		Sa	fety
Age	Male	Female	Male	Female
25	0.04	0.02	0.04	0.02
30	0.04	0.02	0.04	0.03
35	0.07	0.04	0.07	0.05
40	0.10	0.07	0.10	0.08
45	0.14	0.11	0.13	0.12
50	0.20	0.16	0.19	0.19
55	0.34	0.24	0.30	0.30
60	0.58	0.41	0.52	0.51
65	0.98	0.74	0.88	0.93

All Miscellaneous pre-retirement deaths are assumed to be non-duty. For Safety, 50% of pre-retirement deaths are assumed to be non-duty and the rest are assumed to be duty.



# **Termination Rates Before Retirement (continued):**

Rate (%)
Disability

2.000					
Miscellaneous <sup>(1)</sup>	Safety <sup>(2)</sup>				
0.00	0.10				
0.01	0.10				
0.03	0.16				
0.05	0.26				
0.08	0.45				
0.16	0.61				
0.26	0.80				
0.36	1.26				
0.52	2.10				
	0.00 0.01 0.03 0.05 0.08 0.16 0.26 0.36	Miscellaneous <sup>(1)</sup> Safety <sup>(2)</sup> 0.00         0.10           0.01         0.10           0.03         0.16           0.05         0.26           0.08         0.45           0.16         0.61           0.26         0.80           0.36         1.26			

<sup>&</sup>lt;sup>(1)</sup> 25% of Miscellaneous disabilities are assumed to be duty disabilities. The other 75% are assumed to be non-duty disabilities.



<sup>&</sup>lt;sup>(2)</sup> 90% of Safety disabilities are assumed to be duty disabilities. The other 10% are assumed to be non-duty disabilities.

### **Termination Rates Before Retirement (continued):**

Rate (%)
Withdrawal (< 5 Years of Service)<sup>(1)</sup>

Years of Service	Miscellaneous	Safety
0	13.00	8.00
1	8.00	6.00
2	7.00	5.00
3	6.00	4.00
4	5.50	3.00

# Withdrawal (5+ Years of Service)(2)

Age	Miscellaneous	Safety
20	5.00	2.50
25	5.00	2.50
30	4.70	2.50
35	4.20	2.20
40	3.40	1.85
45	2.70	1.60
50	2.20	1.50
55	1.85	1.50
60	1.30	1.50
65	1.00	0.00

<sup>(1) 75%</sup> of the Miscellaneous members and 50% of the Safety members are assumed to elect a refund of contribution balance while the remaining 25% and 50% of Miscellaneous and Safety members, respectively, are assumed to elect a deferred retirement benefit. No withdrawal is assumed after a member is assumed to retire.



<sup>&</sup>lt;sup>(2)</sup> 50% of the Miscellaneous members and 20% of the Safety members are assumed to elect a refund of contribution balance while the remaining 50% and 80% of Miscellaneous and Safety members, respectively, are assumed to elect a deferred retirement benefit. No withdrawal is assumed after a member is assumed to retire.

SECTION 4: Reporting Information for the Sacramento County Employees' Retirement System

# **Retirement Rates:**

Rate (%)

				Nate (70)			
Age	Miscellaneous Tier 1	Miscellaneous Tiers 2 & 3	Miscellaneous Tier 4	Miscellaneous Tier 5	Safety Tiers 1 & 2	Safety Tier 3	Safety Tier 4
45	0.00	0.00	0.00	0.00	2.00	1.50	0.00
46	0.00	0.00	0.00	0.00	2.00	1.50	0.00
47	0.00	0.00	0.00	0.00	2.00	1.50	0.00
48	0.00	0.00	0.00	0.00	2.00	1.50	0.00
49	0.00	0.00	0.00	0.00	5.00	4.00	0.00
50	6.00	2.00	2.00	0.00	25.00	10.00	15.00
51	4.00	2.00	2.00	0.00	18.00	12.00	10.50
52	4.00	2.00	2.00	4.00	18.00	14.00	12.00
53	4.00	3.00	2.00	1.50	22.00	16.00	14.00
54	7.00	4.00	3.00	2.50	22.00	18.00	15.50
55	10.00	6.00	4.00	3.50	22.00	50.00	40.00
56	15.00	6.00	5.00	4.50	25.00	25.00	25.00
57	16.00	8.00	6.00	5.50	25.00	25.00	25.00
58	18.00	12.00	7.00	6.50	25.00	25.00	25.00
59	22.00	14.00	8.00	7.50	30.00	30.00	25.00
60	28.00	14.00	9.00	8.50	45.00	45.00	45.00
61	30.00	14.00	10.00	9.50	55.00	55.00	55.00
62	35.00	25.00	18.00	17.00	70.00	70.00	70.00
63	35.00	30.00	16.00	15.00	70.00	70.00	70.00
64	40.00	35.00	20.00	19.00	70.00	70.00	70.00
65	50.00	40.00	25.00	24.00	100.00	100.00	100.00
66	45.00	45.00	20.00	20.00	100.00	100.00	100.00
67	45.00	45.00	20.00	20.00	100.00	100.00	100.00
68	50.00	50.00	30.00	30.00	100.00	100.00	100.00
69	60.00	60.00	40.00	40.00	100.00	100.00	100.00
70	100.00	100.00	100.00	100.00	100.00	100.00	100.00



Retirement Age and Benefit for Deferred Vested Members:

For deferred vested members, we make the following retirement assumption:

Miscellaneous Age: 59

Safety Age: 53

We assume that 40% of future Miscellaneous and 50% of future Safety deferred vested members will continue to work for a reciprocal employer. For reciprocals, we assume 4.50% and 5.25% compensation increases per annum, respectively.

**Future Benefit Accruals:** 

1.0 year of service per year for the full-time employees. Continuation of current

partial service accrual for part-time employees.

**Unknown Data for Members:** Same as those exhibited by members with similar known characteristics. If not

specified, members are assumed to be male.

**Percent Married:** 80% of male members; 55% of female members.

**Age of Spouse:** Female (or male) spouses are 3 years younger (or older) than their spouses.

Service From Unused Sick Leave Conversion:

The following assumptions for service converted from unused sick leave as a

percentage of service at retirement are used:

Service Retirements:

Miscellaneous: 1.50% Safety: 2.25%

Disability Retirements:

Miscellaneous: 0.00% Safety: 0.25%

Pursuant to Section 31641.01, the cost of this benefit will be charged only to

employers and will not affect member contribution rates.



**Net Investment Return:** 

7.50%; net of administration and investment expenses.

**Employee Contribution** Crediting Rate<sup>1</sup>:

3.25% (assumed rate of inflation); compounded semi-annually.

**Cost-of-Living Adjustment** for Retirees:

Miscellaneous and Safety Tier 1 benefits are assumed to increase at 3.25% per year. Miscellaneous Tier 3, Tier 4 and Tier 5 and Safety Tier 2, Tier 3 and Tier 4 benefits are assumed to increase at 2.0% per year. Miscellaneous Tier 2 receive no COLA increases.

**Salary Increases:** 

Annual Rate of Compensation Increase (%)

Inflation: 3.25%, plus "across the board" salary increases of 0.25% per year; plus the following merit and promotional increases.

Years of Service	Miscellaneous	Safety	
0-1	5.00	8.00	
1-2	4.50	7.00	
2-3	3.75	6.00	
3-4	3.50	5.00	
4-5	3.00	4.00	
5-6	2.50	3.50	
6-7	2.25	3.25	
7-8	2.00	3.00	
8-9	1.75	2.75	
9-10	1.00	2.00	
10 or more	1.00	1.75	

<sup>&</sup>lt;sup>1</sup> Current policy is to credit the member contribution account with interest up to the current 5-year Treasury rate, if such earnings are available. However, the difference in earnings between the 5-year Treasury rate and the target crediting rate will be applied to the other valuation reserves so that the overall valuation reserve target crediting rate is maintained at 7.50%.



65

**Actuarial Value of Assets:** The market value of assets less unrecognized returns in each of the last six years.

Unrecognized return is equal to the difference between actual and expected returns on a market value basis and is recognized over a seven-year period. The deferred return is further adjusted, if necessary, so that the actuarial value of assets will stay within 30% of the market value of assets. Deferred gains and losses as of June 30, 2013 have been combined and will be recognized in equal amounts over a six-year period starting

July 1, 2013.

**Valuation Value of Assets:** Actuarial value of assets reduced by the value of the non-valuation reserves and

designations.

**Actuarial Cost Method:** Entry Age Actuarial Cost Method. Entry Age is the age at the member's hire date.

Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percentage of compensation, as if the current

benefit formulas have always been in effect (i.e., "replacement life").

**Amortization Policy:** The UAAL established as a result of the Early Retirement Incentive Program for

LEMA members is amortized over a 10-year period beginning June 30, 2010. The balance of the UAAL as of June 30, 2012 shall be amortized separately from any

future changes in UAAL over a period of 23 years from June 30, 2012.

Any new UAAL as a result of actuarial gains or losses identified in the annual

valuation as of June 30 will be amortized over a period of 20 years.

Any new UAAL as a result of change in actuarial assumptions or methods will be

amortized over a period of 20 years.

The change in UAAL as a result of any plan amendments will be amortized over a period of 15 years and the change in UAAL resulting from retirement incentive

programs will be amortized over a period of up to 5 years.

**Changes in Actuarial Assumptions and Methods:** 

Based on the Actuarial Experience Study, the following assumptions and methods

were was changed since the previous valuation. Previously, those assumptions and

methods were:



## **Changes in Actuarial Assumptions and Methods: Prior Assumptions (Continued)**

## **Post – Retirement Mortality Rates:**

Healthy: For Miscellaneous Members and Beneficiaries: RP-2000 Combined Healthy Mortality

Table set back two years.

For Safety Members: RP-2000 Combined Healthy Mortality Table set back one year.

Disabled: For Miscellaneous Members: RP-2000 Disabled Retiree Mortality Table set forward

one year.

For Safety members: RP-2000 Combined Healthy Mortality Table set back one year.

The mortality tables shown above were determined to contain sufficient provision appropriate to reasonably reflect future mortality improvement, based on a review of

the mortality experience in the June 30, 2010 Actuarial Experience Study.

Member Contribution Rates: For Miscellaneous members: RP-2000 Combined Healthy Mortality Table set back

two years weighted 40% male and 60% female.

For Safety members: RP-2000 Combined Healthy Mortality Table set back one year

weighted 70% male and 30% female.



**Changes in Actuarial Assumptions and Methods: Prior Assumptions (continued)** 

**Termination Rates Before Retirement:** 

Rate (%)
Mortality

	Miscel	laneous	Sa	ıfety
Age	Male	Female	Male	Female
25	0.04	0.02	0.04	0.02
30	0.04	0.02	0.04	0.02
35	0.06	0.04	0.07	0.04
40	0.10	0.06	0.10	0.06
45	0.13	0.09	0.14	0.10
50	0.19	0.14	0.20	0.16
55	0.29	0.22	0.32	0.24
60	0.53	0.39	0.59	0.44
65	1.00	0.76	1.13	0.86

All Miscellaneous pre-retirement deaths are assumed to be non-duty. For Safety, 25% of pre-retirement deaths are assumed to be non-duty and the rest are assumed to be duty.



Changes in Actuarial Assumptions and Methods: Prior Assumptions (continued)
Termination Rates Before Retirement (continued):

Rate (%)
Disability

Age	Miscellaneous <sup>(1)</sup>	Safety <sup>(2)</sup>
20	0.00	0.10
25	0.01	0.10
30	0.03	0.19
35	0.05	0.34
40	0.08	0.49
45	0.16	0.64
50	0.26	0.82
55	0.36	1.68
60	0.61	0.00

<sup>(1) 20%</sup> of Miscellaneous disabilities are assumed to be duty disabilities. The other 80% are assumed to be non-duty disabilities.



<sup>&</sup>lt;sup>(2)</sup> 90% of Safety disabilities are assumed to be duty disabilities. The other 10% are assumed to be non-duty disabilities.

Changes in Actuarial Assumptions and Methods: Prior Assumptions (continued)
Termination Rates Before Retirement (continued):

Rate (%)
Withdrawal (< 5 Years of Service)

Years of Service	Miscellaneous	Safety
0	15.00	10.00
1	9.00	6.00
2	8.00	5.00
3	6.00	4.00
4	5.00	3.00

Withdrawal (5+ Years of Service) \*

Age	Miscellaneous	Safety
20	5.10	3.00
25	4.85	3.00
30	4.60	3.00
35	4.35	2.70
40	3.80	2.20
45	2.90	1.70
50	2.02	0.00
55	1.58	0.00
60	0.00	0.00

<sup>\* 50%</sup> of the Miscellaneous members and 40% of the Safety members are assumed to elect a refund of contribution balance while the remaining 50% and 60% of Miscellaneous and Safety members, respectively, are assumed to elect a deferred retirement benefit. No withdrawal is assumed after a member is assumed to retire.



SECTION 4: Reporting Information for the Sacramento County Employees' Retirement System

Changes in Actuarial Assumptions and Methods: Prior Assumptions (continued)
Retirement Rates:

Rate (%)

Age	Miscellaneous Tier 1	Miscellaneous Tiers 2 & 3	Miscellaneous Tier 4	Miscellaneous Tier 5	Safety Tiers 1 & 2	Safety Tier 3	Safety Tier 4
45	0.00	0.00	0.00	0.00	2.00	1.50	0.00
46	0.00	0.00	0.00	0.00	2.00	1.50	0.00
47	0.00	0.00	0.00	0.00	2.00	1.50	0.00
48	0.00	0.00	0.00	0.00	2.00	1.50	0.00
49	0.00	0.00	0.00	0.00	5.00	4.00	0.00
50	6.00	2.00	2.00	0.00	25.00	10.00	15.00
51	4.00	2.00	2.00	0.00	20.00	12.00	10.50
52	4.00	2.00	2.00	4.00	20.00	14.00	12.00
53	4.00	3.00	2.00	1.50	25.00	16.00	14.00
54	7.00	4.00	3.00	2.50	25.00	18.00	15.50
55	10.00	6.00	4.00	3.50	25.00	50.00	40.00
56	12.00	6.00	5.00	4.50	30.00	30.00	25.00
57	15.00	8.00	6.00	5.50	30.00	30.00	25.00
58	20.00	13.00	7.00	6.50	30.00	30.00	25.00
59	24.00	15.00	8.00	7.50	30.00	30.00	25.00
60	29.00	18.00	9.00	8.50	50.00	50.00	50.00
61	32.00	20.00	10.00	9.50	60.00	60.00	60.00
62	35.00	30.00	18.00	17.00	75.00	75.00	75.00
63	40.00	35.00	16.00	15.00	75.00	75.00	75.00
64	45.00	40.00	20.00	19.00	75.00	75.00	75.00
65	50.00	45.00	25.00	24.00	100.00	100.00	100.00
66	45.00	45.00	20.00	20.00	100.00	100.00	100.00
67	45.00	45.00	20.00	20.00	100.00	100.00	100.00
68	50.00	50.00	30.00	30.00	100.00	100.00	100.00
69	60.00	60.00	40.00	40.00	100.00	100.00	100.00
70	100.00	100.00	100.00	100.00	100.00	100.00	100.00



# **Changes in Actuarial Assumptions and Methods: Prior Assumptions (continued)**

Retirement Age and Benefit for Deferred Vested Members:

For deferred vested members, we make the following retirement assumption:

Miscellaneous Age: 59
Safety Age: 53

We assume that 50% of future Miscellaneous and 60% of future Safety deferred vested members will continue to work for a reciprocal employer. For reciprocals, we assume 5.40% compensation increases per annum.

# **Salary Increases:**

# Annual Rate of Compensation Increase (%)

Inflation: 3.25%, plus "across the board" salary increases of 0.25% per year; plus the following merit and promotional increases.

Age	Miscellaneous	Safety	
20	7.80	6.01	
25	5.13	5.12	
30	3.73	3.97	
35	3.17	2.78	
40	2.66	2.24	
45	2.36	1.86	
50	2.00	1.74	
55	1.58	1.64	
60	1.39	0.00	

# **EXHIBIT VI**

# **Summary of Plan Provisions**

This exhibit summarizes the major provisions of the SCERS included in the valuation. It is not intended to be, nor should it be interpreted as, a complete statement of all plan provisions.

Membership Eligibility:	Membership with SCERS usually begins with the employment by the County or member District as a permanent full-time or part-time employee as provided in the County Salary Resolution or the District's Salary Resolution.
Miscellaneous Tier 1	All Miscellaneous members hired prior to September 27, 1981.
Miscellaneous Tier 2 and Tier 3	All Miscellaneous members hired on or after September 27, 1981. Membership into Tier 2 or Tier 3 is determined by date of hire and by bargaining unit.
Miscellaneous Tier 4	All Miscellaneous members hired on or after January 1, 2012 as adopted by the County. Membership into Tier 4 is determined by date of hire.
Miscellaneous Tier 5	All Miscellaneous members hired on or after January 1, 2013.
Safety Tier 1 and Tier 2	Membership into Tier 1 or Tier 2 for Safety employee is determined by date of hire and by bargaining unit.
Safety Tier 3	All Safety members hired on or after January 1, 2012 as adopted by the County. Membership into Tier 3 is determined by date of hire.
Safety Tier 4	All Safety members hired on or after January 1, 2013.
Final Compensation for Benefit Determination:	
Miscellaneous and Safety Tier 1	Highest consecutive 1 year (12 months) of compensation earnable (§31462.1) (FAS1)
Miscellaneous Tier 2, Tier 3, and Tier 4 and Safety Tier 2 and Tier 3	Highest consecutive 3 years (36 months) of compensation earnable. (§31462) (FAS3)
Miscellaneous Tier 5 and Safety Tier 4	Highest consecutive 3 years (36 months) of pensionable compensation. (§7522.10(c), §7522.32 and §7522.34) (FAS3)



SECTION 4: Reporting Information for the Sacramento County Employees' Retirement System

Service:	Years of service. (Yrs)
Service Retirement Eligibility:	
Miscellaneous	
Tiers 1, 2, 3 and 4	Age 50 with 10 years of service, or age 70 regardless of service, or after 30 years of service, regardless of age (§31672).
Tier 5	Age 52 with 5 years of service (§7522.20(a)).
Safety	
Tiers 1, 2 and 3	Age 50 with 10 years of service, or after 20 years of Safety service, regardless of age (§31663.25).
Tier 4	Age 50 with 5 years of service (§7522.25(d)).

# **Benefit Formula:**

Miscellaneous Plans	Retirement Age	Benefit Formula
Miscellaneous Tier 1 (§31676.14)	50	(1.48% x FAS1 - 1/3 x 1.48% x \$350 x 12) x Yrs
	55	(1.95%xFAS1 – 1/3x1.95%x\$350x12)xYrs
	60	(2.44%xFAS1 - 1/3x2.44%x\$350x12)xYrs
	62	(2.61% x FAS1 - 1/3 x 2.61% x \$350 x 12) x Yrs
	65 or later	(2.61%xFAS1 – 1/3x2.61%x\$350x12)xYrs
Miscellaneous Tier 2 and Tier 3	50	(1.48%xFAS3 – 1/3x1.48%x\$350x12)xYrs
(§31676.14)	55	(1.95%xFAS3 – 1/3x1.95%x\$350x12)xYrs
	60	(2.44% x FAS3 - 1/3 x 2.44% x \$350 x 12) x Yrs
	62	(2.61% x FAS3 - 1/3 x 2.61% x \$350 x 12) x Yrs
	65 or later	(2.61% x FAS3 - 1/3 x 2.61% x \$350 x 12) x Yrs



SECTION 4: Reporting Information for the Sacramento County Employees' Retirement System

	Retirement Age	Benefit Formula
Miscellaneous Tier 4 (§31676.1)	50	(1.18%xFAS3 – 1/3x1.18%x\$350x12)xYrs
	55	(1.49%xFAS3 – 1/3x1.49%x\$350x12)xYrs
	60	(1.92%xFAS3 – 1/3x1.92%x\$350x12)xYrs
	62	(2.09%xFAS3 – 1/3x2.09%x\$350x12)xYrs
	65 or later	(2.43%xFAS3 – 1/3x2.43%x\$350x12)xYrs
Miscellaneous Tier 5	52	1.00%xFAS3xYrs
(§7522.20(a))	55	1.30%xFAS3xYrs
	60	1.80%xFAS3xYrs
	62	2.00%xFAS3xYrs
	65	2.30%xFAS3xYrs
	67 or later	2.50%xFAS3xYrs
Safety Plans	Retirement Age	Benefit Formula
Safety Plans Safety Tier 1 (§31664.1)	Retirement Age 50	<b>Benefit Formula</b> (3.00%xFAS1 – 1/3x3.00%x\$350x12)xYrs
·	_	
·	50	(3.00%xFAS1 - 1/3x3.00%x\$350x12)xYrs
·	50 55	(3.00%xFAS1 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%.x\$350x12)xYrs
Safety Tier 1 (§31664.1)	50 55 60 or later	(3.00%xFAS1 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%.x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%x.\$350x12)xYrs
Safety Tier 1 (§31664.1)	50 55 60 or later	(3.00%xFAS1 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%.x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%x.\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs
Safety Tier 1 (§31664.1)	50 55 60 or later 50 55	(3.00%xFAS1 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%.x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%x.\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs
Safety Tier 1 (§31664.1)  Safety Tier 2 (§31664.1)	50 55 60 or later 50 55 60 or later	(3.00%xFAS1 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%.x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%x.\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs
Safety Tier 1 (§31664.1)  Safety Tier 2 (§31664.1)	50 55 60 or later 50 55 60 or later	(3.00%xFAS1 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%.x\$350x12)xYrs (3.00%xFAS1 - 1/3x3.00%x.\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs (3.00%xFAS3 - 1/3x3.00%x\$350x12)xYrs (2.29%xFAS3 - 1/3x2.29%x\$350x12)xYrs



	Retirement Age	Benefit Formula
Safety Tier 4 (§7522.25(d))	50	2.00%xFAS3xYrs
	55	2.50%xFAS3xYrs
	57 or later	2.70%xFAS3xYrs
Maximum Benefit:		
Miscellaneous Tier 1, Tier 2,	100% of Highest A	verage Compensation (§31676.14, §31676.1, §31664.1, §31664.2)

Tier 3 and Tier 4 and Safety
Tier 1, Tier 2 and Tier 3
Miscellaneous Tier 5 and
Safety Tier 4

None

# Additional Benefit Information:

- > For Miscellaneous members of the following Districts, benefits accrued before June 29, 2003 will continue to be calculated using §31676.1.
  - 1. Fair Oaks Cemetery District
  - 2. Galt Arno Cemetery District



## **Non-duty Disability:**

Miscellaneous and Safety Tier 1

Eligibility Five years of service (§31720).

Benefit Formula 1.5% per year of service for Miscellaneous Tier 1 and 1.8% per year of service for

Safety Tier 1. If the benefit does not exceed one-third of Final Compensation, the service is projected to 65 for Miscellaneous Tier 1 and 55 for Safety Tier 1, but the total benefit cannot be more than one-third of Final Compensation (§31727 and

§31727.2). The Service Retirement benefit is payable, if greater.

Miscellaneous Tier 2, Tier 3, Tier 4, and Tier 5 and Safety Tier 2, Tier 3

and Tier 4

Eligibility Five years of service (§31720).

Benefit Formula 20% of Final Compensation for the first five years of service plus 2% for each year of

additional service for a maximum of 40% of Final Compensation (§31727.7). The

Service Retirement benefit is payable, if greater.

# **Line-of-Duty Disability:**

<u>All Members</u>

Eligibility No age or service requirements (§31720).

Benefit Formula 50% of the Final Compensation or 100% of Service Retirement benefit, if greater

(§31727.4).



#### **Pre-Retirement Death:**

All Members

Eligibility No age or service requirements.

Benefit Refund of employee contributions with interest plus one month's compensation for

each year of service to a maximum of six month's compensation (§31781).

Death in Line-of-Duty 50% of Final Compensation or 100% of Service Retirement benefit, if greater,

payable to spouse or minor children (§31787).

OR

Vested Members

Eligibility Five years of service.

Benefit 60% of the greater of Service or Non-duty Disability Retirement benefit payable to

surviving eligible spouse (§31765.1, §31781.1), in lieu of above.

Death in Line-of-Duty 50% of Final compensation or 100% of Service Retirement benefit, if greater, payable

to spouse or minor children (§31787).

#### **Death After Retirement:**

All Members

Service Retirement or

Non-Duty Disability 60% of member's unmodified allowance continued to eligible spouse (§31760.1). An

additional \$4,000 lump sum benefit is payable to member's beneficiary (§31789.3). An eligible spouse is a surviving spouse who was married to the member at least one

year prior to the date of retirement (§31760.1).

Line-of-Duty Disability 100% of member's allowance continued to eligible spouse (§31786). An additional

\$4,000 lump sum benefit is payable to member's beneficiary (§31789.3). An eligible spouse is a surviving spouse who was married to the member at least one year prior to

the date of retirement (§31760.1).



Withdrawal Benefits:	
Less than Five Years of Service	Refund of accumulated employee contributions with interest, or earned benefit at age 70 (§31628). Effective January 1, 2003, a member may also elect to leave their contributions on deposit in the retirement fund (§31629.5).
Five or More Years of Service	If contributions left on deposit, entitled to earned benefits commencing at any time after eligible to retire (§31700).

# Post-retirement Cost-of-Living Benefits:

Miscellaneous and Safety Tier 1 Future changes based on Consumer Price Index to a maximum of 4% per year, excess

"banked." (§31870.3)

Miscellaneous Tier 3, Tier 4 and Tier 5 and Safety Tier 2, Tier 3 and Tier 4 Future changes based on Consumer Price Index to a maximum of 2% per year, excess

"banked." (§31870)

Note: There is no cost-of-living benefit for Miscellaneous Tier 2.



**Member Contributions:** Please refer to Appendix A for the specific rates.

Miscellaneous Tier 1

Basic Provide for an average annuity at age 55 equal to 1/240 of FAS1. (§31621.3)

Cost-of-Living Provide for one-half of future Cost-of-Living costs.

Miscellaneous Tier 2

Basic Provide for an average annuity at age 55 equal to 1/240 of FAS3. (§31621.3)

Cost-of-Living None.

Miscellaneous Tier 3

Basic Provide for an average annuity at age 55 equal to 1/240 of FAS3. (§31621.3)

Cost-of-Living Provide for one-half of future Cost-of-Living costs.

Miscellaneous Tier 4

Basic Provide for an average annuity at age 60 equal to 1/120 of FAS3. (§31621)

Cost-of-Living Provide for one-half of future Cost-of-Living costs.

Miscellaneous Tier 5 50% of the total Normal Cost rate.

Safety Tier 1, Tier 2 and Tier 3

Basic Provide for an average annuity at age 50 equal to 1/100 of FAS1 (FAS3 for Tier 2 and

Tier 3). (§31639.25)

Cost-of-Living Provide for one-half of future Cost-of-Living costs.

Safety Tier 4 50% of the total Normal Cost rate.

Notes: The above rates are known as full rates. For members paying half rates, their rates should be one-half of the rates provided in this report. In addition, for members entering the plan on or after January 1, 1975, they pay a rate based on a single entry age (§31621.11 and §31639.26).

After we completed the June 30, 2013 valuation, we were informed by SCERS that starting in 2014/2015, most County members in the legacy tiers have agreed to pick up either 1/3, 1/4, or 1/5 of the difference between the employee's then current Normal Cost and 50% of the total normal cost rate. The adjustments required for the employer and employee rates were subsequently provided to the System and the impact of those adjustments are identified in this report.

As those members have agreed to pick up an additional 1/3, 1/4, or 1/5 of the difference in the Normal Cost rate in 2015/2016, we have reflected these adjustments in preparing the recommended rates for the June 30, 2014 valuation.



Other Information: Safety Tier 1, Tier 2 and Tier 3 members with 30 or more years of service are exempt

from paying member contributions. The same applies for Miscellaneous Tier 1, Tier 2,

Tier 3 and Tier 4 members hired on or before March 7, 1973.

**Plan Amendment:** All members with membership dates on or after January 1, 2013 entered either

Miscellaneous Tier 5 or Safety Tier 4.

**NOTE:** The summary of major plan provisions is designed to outline principal plan benefits as interpreted for purposes

of the actuarial valuation. If the System should find the plan summary not in accordance with the actual provisions, the System should alert the actuary so they can both be sure the proper provisions are valued.



Appendix A

Member Contribution Rates

Comparison of Member Rate<sup>(1),(2)</sup> from June 30, 2013 and June 30, 2014 Valuation

_		June 30, 201	14		June 30, 2013	3	
Miscellaneous	Basic	COLA	Total	Basic	COLA	Total	Increase/(Decrease) in Rate
Tier 1	3.70%	1.05%	4.75%	4.02%	1.41%	5.43%	-0.68%
Tier 2	3.54%	0.00%	3.54%	3.82%	0.00%	3.82%	-0.28%
Tier 3	3.54%	1.24%	4.78%	3.82%	1.36%	5.18%	-0.40%
Tier 4	6.12%	1.08%	7.20%	6.67%	1.13%	7.80%	-0.60%
Tier 5	7.04%	1.08%	8.12%	7.41%	1.37%	8.78%	-0.66%
G. C.	ъ.	COLA	T ( 1	ъ.	COLA	T 1	Increase/(Decrease)
Safety	Basic	COLA	Total	Basic	COLA	Total	in Rate
Tier 1	9.92%	5.33%	15.25%	9.78%	4.52%	14.30%	0.95%
Tier 2	9.43%	2.86%	12.29%	9.30%	2.64%	11.94%	0.35%
Tier 3	9.43%	2.67%	12.10%	9.30%	2.52%	11.82%	0.28%
Tier 4	10.54%	2.57%	13.11%	11.24%	2.62%	13.86%	-0.75%

<sup>(1)</sup> For members paying half rates, their rates should be exactly one-half of rates described above.

Note: Contribution rates for most County members in the legacy tiers who have agreed to pick up an additional Normal Cost can be found in Appendix C.



<sup>(2)</sup> Members who enter on or after 1/1/1975 contribute as indicated above and all others contribute the rate at their respective entry ages.

Appendix A

Member Contribution Rates (Continued)

# Miscellaneous Members' Contribution Rates from the June 30, 2014 Actuarial Valuation

Age		Basic Only					COLA Only				Total								
Age					Salary	in Excess o	f \$350				Salary	in Excess o	of \$350				Salary	in Excess o	of \$350
16	-	Tier 1		Tier 4	Tier 1		Tier 4	Tier 1	Tier 3	Tier 4	Tier 1	Tier 3	Tier 4	Tier 1	Tier 3	Tier 4	Tier 1	Tier 3	Tier 4
17		1.79%			2.68%			0.51%			0.76%			2.30%			3.44%		-
19		1.82%			2.73%			0.52%			0.78%			2.34%			3.51%		
20	18	1.85%			2.78%									2.38%			3.57%		
21	19	1.89%			2.83%			0.54%			0.81%			2.43%			3.64%		
22         1,98%         2,97%         0,57%         0,85%         2,55%         3,82%           23         2,01%         3,02%         0,57%         0,86%         2,58%         3,88%           24         2,05%         3,07%         0,58%         0,87%         2,63%         3,94%           25         2,09%         3,13%         0,59%         0,88%         2,68%         4,02%           26         2,12%         3,13%         0,61%         0,91%         2,73%         4,09%           27         2,15%         3,23%         0,61%         0,92%         2,76%         4,15%           28         2,19%         3,29%         0,63%         0,99%         2,80%         4,23%           29         2,23%         3,44%         0,63%         0,99%         2,92%         4,37%           31         2,31%         3,46%         0,66%         0,99%         2,97%         4,45%           32         2,34%         3,51%         0,66%         0,99%         2,97%         4,45%           33         2,38%         3,57%         0,68%         1,00%         3,06%         4,59%           34         2,43%         3,64%         0,68%	20	1.91%			2.87%			0.55%			0.82%			2.46%			3.69%		
23         2.01%         3.02%         0.57%         0.86%         2.58%         3.88%           24         2.05%         3.07%         0.58%         0.87%         2.63%         3.94%           25         2.09%         3.13%         0.59%         0.89%         2.68%         4.02%           26         2.12%         3.18%         0.61%         0.99%         2.73%         4.09%           27         2.15%         3.23%         0.61%         0.99%         2.82%         4.15%           28         2.19%         3.29%         0.63%         0.94%         2.82%         4.23%           29         2.23%         3.40%         0.65%         0.99%         2.92%         4.47%           30         2.27%         3.40%         0.66%         0.99%         2.92%         4.43%           31         2.31%         3.51%         0.66%         0.99%         2.97%         4.45%           32         2.34%         3.51%         0.67%         1.00%         3.01%         4.51%           33         2.35%         4.08%         3.04%         0.68%         1.02%         3.06%         4.08%           35         2.47%         2.36%	21	1.95%			2.92%			0.55%			0.83%			2.50%			3.75%		
24         2.05%         3.07%         0.58%         0.87%         2.63%         3.94%           25         2.09%         3.11%         0.59%         0.89%         2.68%         4.09%           26         2.12%         3.18%         0.61%         0.91%         2.73%         4.09%           27         2.15%         3.23%         0.61%         0.92%         2.76%         4.15%           28         2.19%         3.29%         0.63%         0.94%         2.82%         4.23%           29         2.23%         3.34%         0.63%         0.95%         2.86%         4.29%           30         2.27%         3.40%         0.65%         0.97%         2.92%         4.45%           31         2.31%         3.46%         0.66%         0.99%         2.97%         4.45%           32         2.34%         3.51%         0.67%         1.00%         3.01%         4.51%           33         2.38%         3.57%         0.68%         1.02%         3.12%         4.68%           34         2.43%         3.54%         6.12%         0.70%         0.83%         0.72%         1.05%         1.24%         1.08%         3.19%         4.8	22	1.98%			2.97%			0.57%			0.85%			2.55%			3.82%		
25         2.09%         3.13%         0.59%         0.89%         2.6%         4.02%           26         2.12%         3.18%         0.61%         0.91%         2.73%         4.0%           27         2.15%         3.23%         0.61%         0.92%         2.76%         4.15%           28         2.19%         3.29%         0.63%         0.94%         2.82%         4.23%           30         2.27%         3.40%         0.65%         0.97%         2.29%         4.37%           31         2.31%         3.46%         0.66%         0.99%         2.97%         4.45%           31         2.31%         3.46%         0.66%         0.99%         2.97%         4.45%           32         2.34%         3.51%         0.66%         0.99%         2.97%         4.45%           34         2.43%         3.57%         0.68%         1.02%         3.06%         4.59%           35         2.47%         2.36%         4.08%         3.70%         0.83%         0.72%         1.05%         1.08%         3.17%         3.19%         4.80%         4.75%         4.78%         7.20           36         2.47%         2.36%         4.08%<	23	2.01%			3.02%			0.57%			0.86%			2.58%			3.88%		
26         2.12%         3.18%         0.61%         0.91%         2.73%         4.09%           27         2.15%         3.23%         0.61%         0.92%         2.76%         4.15%           28         2.19%         3.29%         0.63%         0.94%         2.82%         4.23%           29         2.23%         3.34%         0.63%         0.95%         2.86%         4.29%           30         2.27%         3.40%         0.65%         0.99%         2.97%         4.47%           31         2.31%         3.46%         0.66%         0.99%         2.97%         4.45%           32         2.34%         3.51%         0.67%         1.00%         3.01%         4.51%           33         2.38%         3.57%         0.68%         1.02%         3.06%         4.59%           34         2.43%         3.54%         0.68%         1.02%         3.12%         4.80%         4.75%         4.78%         7.20           36         2.51%         3.64%         0.70%         0.83%         0.72%         1.05%         1.24%         1.08%         3.12%         4.80%         4.75%         4.78%         7.20           36         2.51%	24	2.05%			3.07%			0.58%			0.87%			2.63%			3.94%		
27         2.15%         3.23%         0.61%         0.92%         2.76%         4.15%           28         2.19%         3.29%         0.63%         0.94%         2.82%         4.23%           29         2.23%         3.40%         0.65%         0.97%         2.92%         4.37%           31         2.21%         3.40%         0.66%         0.97%         2.92%         4.37%           32         2.34%         3.51%         0.66%         0.99%         2.97%         4.45%           32         2.34%         3.51%         0.67%         1.00%         3.01%         4.51%           33         2.38%         3.57%         0.68%         1.02%         3.06%         4.59%           34         2.43%         3.64%         0.68%         1.02%         3.12%         4.68%           35         2.47%         2.36%         4.08%         3.76%         0.71%         1.05%         1.24%         1.08%         3.17%         4.80%         4.75%         4.78%         7.20           36         2.51%         3.83%         0.71%         1.10%         3.28%         4.20%         4.83%         4.72%         4.83%         4.72%         4.83%         <	25	2.09%			3.13%			0.59%			0.89%			2.68%			4.02%		
28       2.19%       3.29%       0.63%       0.94%       2.82%       4.23%         29       2.23%       3.34%       0.63%       0.95%       2.86%       4.29%         30       2.27%       3.40%       0.66%       0.97%       2.92%       4.37%         31       2.31%       3.46%       0.66%       0.99%       2.97%       4.45%         32       2.34%       3.51%       0.67%       1.00%       3.01%       4.51%         33       2.38%       3.57%       0.68%       1.02%       3.06%       4.59%         34       2.43%       3.64%       0.68%       1.02%       3.12%       4.68%         35       2.47%       2.36%       4.08%       3.70%       3.54%       0.70%       0.83%       0.72%       1.08%       3.17%       3.19%       4.80%       4.75%       4.78%       7.20         36       2.51%       3.76%       0.71%       1.07%       1.07%       3.22%       4.80%       4.78%       7.20         37       2.55%       3.83%       0.73%       1.09%       3.28%       4.92%         38       2.59%       3.89%       0.74%       1.11%       3.33%       5.09%	26	2.12%			3.18%			0.61%			0.91%			2.73%			4.09%		
29       2.23%       3.34%       0.63%       0.95%       2.86%       4.29%         30       2.27%       3.40%       0.65%       0.97%       2.92%       4.37%         31       2.31%       3.46%       0.66%       0.99%       2.97%       4.45%         32       2.34%       3.51%       0.67%       1.00%       3.01%       4.51%         34       2.43%       3.64%       0.68%       1.02%       3.06%       4.59%         34       2.43%       3.64%       0.68%       1.04%       3.12%       4.80%       4.59%         35       2.47%       2.36%       4.08%       3.70%       0.88%       0.72%       1.05%       1.24%       1.08%       3.19%       4.80%       4.78%       7.20         36       2.51%       3.76%       0.71%       1.07%       3.28%       4.90%       4.78%       7.20         37       2.55%       3.83%       0.73%       1.09%       3.28%       4.92%         38       2.59%       3.89%       0.74%       1.11%       3.33%       5.00%         40       2.69%       4.03%       0.77%       1.15%       3.52%       5.28%         41	27	2.15%			3.23%			0.61%			0.92%			2.76%			4.15%		
30       2.27%       3.40%       0.65%       0.97%       2.92%       4.37%         31       2.31%       3.46%       0.66%       0.99%       2.97%       4.45%         32       2.34%       3.51%       0.67%       1.00%       3.01%       4.51%         33       2.38%       3.57%       0.68%       1.02%       3.06%       4.59%         34       2.43%       3.64%       0.68%       1.04%       3.12%       4.68%         35       2.47%       2.36%       4.08%       3.70%       0.83%       0.72%       1.05%       1.24%       1.08%       3.17%       3.19%       4.80%       4.78%       7.20         36       2.51%       3.76%       0.71%       1.07%       3.22%       4.83%       4.78%       7.20         37       2.55%       3.83%       0.73%       1.10%       3.28%       4.92%         38       2.59%       3.89%       0.74%       1.11%       3.33%       5.00%         40       2.69%       4.03%       0.75%       1.13%       3.39%       5.09%         41       2.74%       4.11%       0.78%       1.17%       3.58%       5.37%         42	28	2.19%			3.29%			0.63%			0.94%			2.82%			4.23%		
31         2.31%         3.46%         0.66%         0.99%         2.97%         4.45%           32         2.34%         3.51%         0.67%         1.00%         3.01%         4.51%           33         2.38%         3.57%         0.68%         1.02%         3.06%         4.59%           34         2.43%         3.64%         0.68%         1.04%         3.12%         4.68%           35         2.47%         2.36%         4.08%         3.70%         0.74%         0.72%         1.05%         1.24%         1.08%         3.17%         3.19%         4.80%         4.75% </td <td>29</td> <td>2.23%</td> <td></td> <td></td> <td>3.34%</td> <td></td> <td></td> <td>0.63%</td> <td></td> <td></td> <td>0.95%</td> <td></td> <td></td> <td>2.86%</td> <td></td> <td></td> <td>4.29%</td> <td></td> <td></td>	29	2.23%			3.34%			0.63%			0.95%			2.86%			4.29%		
32         2.34%         3.51%         0.67%         1.00%         3.01%         4.51%           33         2.38%         3.57%         0.68%         1.02%         3.06%         4.59%           34         2.43%         3.64%         0.68%         1.04%         3.12%         4.68%           35         2.47%         2.36%         4.08%         3.70%         3.54%         6.12%         0.70%         0.83%         0.72%         1.05%         1.24%         1.08%         3.17%         3.19%         4.80%         4.75%         4.78%         7.20           36         2.51%         3.76%         3.76%         0.71%         1.07%         3.22%         4.80%         4.75%         4.78%         7.20           37         2.55%         3.83%         0.73%         1.09%         3.28%         4.92%           38         2.59%         3.89%         0.74%         1.11%         3.33%         5.00%           39         2.64%         3.96%         0.75%         1.13%         3.39%         5.09%           41         2.74%         4.11%         0.78%         1.17%         3.52%         5.28%           42         2.79%         4.18% <t< td=""><td>30</td><td>2.27%</td><td></td><td></td><td>3.40%</td><td></td><td></td><td>0.65%</td><td></td><td></td><td>0.97%</td><td></td><td></td><td>2.92%</td><td></td><td></td><td>4.37%</td><td></td><td></td></t<>	30	2.27%			3.40%			0.65%			0.97%			2.92%			4.37%		
33       2.38%       3.57%       0.68%       1.02%       3.06%       4.59%         34       2.43%       3.64%       0.68%       1.04%       3.12%       4.68%         35       2.47%       2.36%       4.08%       3.70%       3.54%       6.12%       0.70%       0.83%       0.72%       1.05%       1.24%       1.08%       3.17%       3.19%       4.80%       4.75%       4.78%       7.20         36       2.51%       3.76%       3.76%       0.71%       1.07%       3.22%       4.80%       4.75%       4.78%       7.20         37       2.55%       3.83%       0.73%       1.09%       3.28%       4.92%         38       2.59%       3.89%       0.74%       1.11%       3.33%       5.00%         39       2.64%       3.96%       0.75%       1.13%       3.39%       5.09%         40       2.69%       4.03%       0.77%       1.15%       3.46%       5.18%         41       2.74%       4.11%       0.78%       1.11%       3.52%       5.28%         42       2.79%       4.18%       0.79%       1.19%       3.58%       5.37%         43       2.84%       4.26%	31	2.31%			3.46%			0.66%			0.99%			2.97%			4.45%		
34         2.43%         3.64%         0.68%         1.04%         3.12%         4.68%           35         2.47%         2.36%         4.08%         3.70%         3.54%         6.12%         0.70%         0.83%         0.72%         1.05%         1.24%         1.08%         3.17%         3.19%         4.80%         4.75%         4.78%         7.20           36         2.51%         3.76%         0.71%         1.07%         3.22%         4.83%         4.92%           37         2.55%         3.83%         0.73%         1.09%         3.28%         4.92%           38         2.59%         3.89%         0.74%         1.11%         3.33%         5.00%           39         2.64%         3.96%         0.75%         1.13%         3.39%         5.09%           40         2.69%         4.03%         0.77%         1.15%         3.46%         5.18%           41         2.74%         4.11%         0.78%         1.17%         3.52%         5.28%           42         2.79%         4.18%         0.79%         1.19%         3.58%         5.37%           43         2.84%         4.26%         0.81%         1.24%         3.73%         <	32	2.34%			3.51%			0.67%			1.00%			3.01%			4.51%		
35         2.47%         2.36%         4.08%         3.70%         3.54%         6.12%         0.70%         0.83%         0.72%         1.05%         1.24%         1.08%         3.17%         3.19%         4.80%         4.75%         4.78%         7.20           36         2.51%         3.76%         0.71%         1.07%         3.22%         4.80%         4.75%         4.78%         7.20           37         2.55%         3.83%         0.73%         1.09%         3.28%         4.92%           38         2.59%         3.89%         0.74%         1.11%         3.33%         5.00%           39         2.64%         3.96%         0.75%         1.13%         3.39%         5.09%           40         2.69%         4.03%         0.77%         1.15%         3.46%         5.18%           41         2.74%         4.11%         0.78%         1.17%         3.52%         5.28%           42         2.79%         4.18%         0.79%         1.19%         3.58%         5.37%           43         2.84%         4.26%         0.81%         1.21%         3.65%         5.47%           44         2.90%         4.35%         0.83% <t< td=""><td>33</td><td>2.38%</td><td></td><td></td><td>3.57%</td><td></td><td></td><td>0.68%</td><td></td><td></td><td>1.02%</td><td></td><td></td><td>3.06%</td><td></td><td></td><td>4.59%</td><td></td><td></td></t<>	33	2.38%			3.57%			0.68%			1.02%			3.06%			4.59%		
36       2.51%       3.76%       0.71%       1.07%       3.22%       4.83%         37       2.55%       3.83%       0.73%       1.09%       3.28%       4.92%         38       2.59%       3.89%       0.74%       1.11%       3.33%       5.00%         39       2.64%       3.96%       0.75%       1.13%       3.39%       5.09%         40       2.69%       4.03%       0.77%       1.15%       3.46%       5.18%         41       2.74%       4.11%       0.78%       1.17%       3.52%       5.28%         42       2.79%       4.18%       0.79%       1.19%       3.58%       5.37%         43       2.84%       4.26%       0.81%       1.21%       3.65%       5.47%         44       2.90%       4.35%       0.83%       1.24%       3.73%       5.59%         45       2.96%       4.44%       0.84%       1.26%       3.80%       5.70%         46       3.00%       4.50%       0.85%       1.28%       3.85%       5.78%         47       3.04%       4.56%       0.87%       1.30%       3.91%       5.86%         48       3.08%       4.62% <td< td=""><td>34</td><td>2.43%</td><td></td><td></td><td>3.64%</td><td></td><td></td><td>0.68%</td><td></td><td></td><td>1.04%</td><td></td><td></td><td>3.12%</td><td></td><td></td><td>4.68%</td><td></td><td></td></td<>	34	2.43%			3.64%			0.68%			1.04%			3.12%			4.68%		
37         2.55%         3.83%         0.73%         1.09%         3.28%         4.92%           38         2.59%         3.89%         0.74%         1.11%         3.33%         5.00%           39         2.64%         3.96%         0.75%         1.13%         3.39%         5.09%           40         2.69%         4.03%         0.77%         1.15%         3.46%         5.18%           41         2.74%         4.11%         0.78%         1.17%         3.52%         5.28%           42         2.79%         4.18%         0.79%         1.19%         3.58%         5.37%           43         2.84%         4.26%         0.81%         1.21%         3.65%         5.47%           44         2.90%         4.35%         0.83%         1.24%         3.73%         5.59%           45         2.96%         4.44%         0.84%         1.26%         3.80%         5.70%           46         3.00%         4.50%         0.85%         1.28%         3.85%         5.78%           47         3.04%         4.56%         0.87%         1.30%         3.91%         5.86%           48         3.08%         4.62%         0.88%	35	2.47%	2.36%	4.08%	3.70%	3.54%	6.12%	0.70%	0.83%	0.72%	1.05%	1.24%	1.08%	3.17%	3.19%	4.80%	4.75%	4.78%	7.20%
38       2.59%       3.89%       0.74%       1.11%       3.33%       5.00%         39       2.64%       3.96%       0.75%       1.13%       3.39%       5.09%         40       2.69%       4.03%       0.77%       1.15%       3.46%       5.18%         41       2.74%       4.11%       0.78%       1.17%       3.52%       5.28%         42       2.79%       4.18%       0.79%       1.19%       3.58%       5.37%         43       2.84%       4.26%       0.81%       1.21%       3.65%       5.47%         44       2.90%       4.35%       0.83%       1.24%       3.73%       5.59%         45       2.96%       4.44%       0.84%       1.26%       3.80%       5.70%         46       3.00%       4.50%       0.85%       1.28%       3.85%       5.78%         47       3.04%       4.56%       0.87%       1.30%       3.91%       5.86%         48       3.08%       4.62%       0.88%       1.32%       3.96%       5.94%         49       3.11%       4.67%       0.89%       1.33%       4.00%       6.04%         50       3.13%       4.70% <td< td=""><td>36</td><td>2.51%</td><td></td><td></td><td>3.76%</td><td></td><td></td><td>0.71%</td><td></td><td></td><td>1.07%</td><td></td><td></td><td>3.22%</td><td></td><td></td><td>4.83%</td><td></td><td></td></td<>	36	2.51%			3.76%			0.71%			1.07%			3.22%			4.83%		
39       2.64%       3.96%       0.75%       1.13%       3.39%       5.09%         40       2.69%       4.03%       0.77%       1.15%       3.46%       5.18%         41       2.74%       4.11%       0.78%       1.17%       3.52%       5.28%         42       2.79%       4.18%       0.79%       1.19%       3.58%       5.37%         43       2.84%       4.26%       0.81%       1.21%       3.65%       5.47%         44       2.90%       4.35%       0.83%       1.24%       3.73%       5.59%         45       2.96%       4.44%       0.84%       1.26%       3.80%       5.70%         46       3.00%       4.50%       0.85%       1.28%       3.85%       5.78%         47       3.04%       4.56%       0.87%       1.30%       3.91%       5.86%         48       3.08%       4.62%       0.88%       1.32%       3.96%       5.94%         49       3.11%       4.67%       0.89%       1.33%       4.00%       6.00%         50       3.13%       4.70%       0.89%       1.34%       4.02%       6.04%	37	2.55%			3.83%			0.73%			1.09%			3.28%			4.92%		
40       2.69%       4.03%       0.77%       1.15%       3.46%       5.18%         41       2.74%       4.11%       0.78%       1.17%       3.52%       5.28%         42       2.79%       4.18%       0.79%       1.19%       3.58%       5.37%         43       2.84%       4.26%       0.81%       1.21%       3.65%       5.47%         44       2.90%       4.35%       0.83%       1.24%       3.73%       5.59%         45       2.96%       4.44%       0.84%       1.26%       3.80%       5.70%         46       3.00%       4.50%       0.85%       1.28%       3.85%       5.78%         47       3.04%       4.56%       0.87%       1.30%       3.91%       5.86%         48       3.08%       4.62%       0.88%       1.32%       3.96%       5.94%         49       3.11%       4.67%       0.89%       1.33%       4.00%       6.00%         50       3.13%       4.70%       0.89%       1.34%       4.02%       6.04%	38	2.59%			3.89%			0.74%			1.11%			3.33%			5.00%		
41       2.74%       4.11%       0.78%       1.17%       3.52%       5.28%         42       2.79%       4.18%       0.79%       1.19%       3.58%       5.37%         43       2.84%       4.26%       0.81%       1.21%       3.65%       5.47%         44       2.90%       4.35%       0.83%       1.24%       3.73%       5.59%         45       2.96%       4.44%       0.84%       1.26%       3.80%       5.70%         46       3.00%       4.50%       0.85%       1.28%       3.85%       5.78%         47       3.04%       4.56%       0.87%       1.30%       3.91%       5.86%         48       3.08%       4.62%       0.88%       1.32%       3.96%       5.94%         49       3.11%       4.67%       0.89%       1.33%       4.00%       6.00%         50       3.13%       4.70%       0.89%       1.34%       4.02%       6.04%	39	2.64%			3.96%			0.75%			1.13%			3.39%			5.09%		
42       2.79%       4.18%       0.79%       1.19%       3.58%       5.37%         43       2.84%       4.26%       0.81%       1.21%       3.65%       5.47%         44       2.90%       4.35%       0.83%       1.24%       3.73%       5.59%         45       2.96%       4.44%       0.84%       1.26%       3.80%       5.70%         46       3.00%       4.50%       0.85%       1.28%       3.85%       5.78%         47       3.04%       4.56%       0.87%       1.30%       3.91%       5.86%         48       3.08%       4.62%       0.88%       1.32%       3.96%       5.94%         49       3.11%       4.67%       0.89%       1.33%       4.00%       6.00%         50       3.13%       4.70%       0.89%       1.34%       4.02%       6.04%	40	2.69%			4.03%			0.77%			1.15%			3.46%			5.18%		
43       2.84%       4.26%       0.81%       1.21%       3.65%       5.47%         44       2.90%       4.35%       0.83%       1.24%       3.73%       5.59%         45       2.96%       4.44%       0.84%       1.26%       3.80%       5.70%         46       3.00%       4.50%       0.85%       1.28%       3.85%       5.78%         47       3.04%       4.56%       0.87%       1.30%       3.91%       5.86%         48       3.08%       4.62%       0.88%       1.32%       3.96%       5.94%         49       3.11%       4.67%       0.89%       1.33%       4.00%       6.00%         50       3.13%       4.70%       0.89%       1.34%       4.02%       6.04%	41	2.74%			4.11%			0.78%			1.17%			3.52%			5.28%		
44       2.90%       4.35%       0.83%       1.24%       3.73%       5.59%         45       2.96%       4.44%       0.84%       1.26%       3.80%       5.70%         46       3.00%       4.50%       0.85%       1.28%       3.85%       5.78%         47       3.04%       4.56%       0.87%       1.30%       3.91%       5.86%         48       3.08%       4.62%       0.88%       1.32%       3.96%       5.94%         49       3.11%       4.67%       0.89%       1.33%       4.00%       6.00%         50       3.13%       4.70%       0.89%       1.34%       4.02%       6.04%	42	2.79%			4.18%			0.79%			1.19%			3.58%			5.37%		
45       2.96%       4.44%       0.84%       1.26%       3.80%       5.70%         46       3.00%       4.50%       0.85%       1.28%       3.85%       5.78%         47       3.04%       4.56%       0.87%       1.30%       3.91%       5.86%         48       3.08%       4.62%       0.88%       1.32%       3.96%       5.94%         49       3.11%       4.67%       0.89%       1.33%       4.00%       6.00%         50       3.13%       4.70%       0.89%       1.34%       4.02%       6.04%	43	2.84%			4.26%			0.81%			1.21%			3.65%			5.47%		
46       3.00%       4.50%       0.85%       1.28%       3.85%       5.78%         47       3.04%       4.56%       0.87%       1.30%       3.91%       5.86%         48       3.08%       4.62%       0.88%       1.32%       3.96%       5.94%         49       3.11%       4.67%       0.89%       1.33%       4.00%       6.00%         50       3.13%       4.70%       0.89%       1.34%       4.02%       6.04%	44	2.90%			4.35%			0.83%			1.24%			3.73%			5.59%		
47       3.04%       4.56%       0.87%       1.30%       3.91%       5.86%         48       3.08%       4.62%       0.88%       1.32%       3.96%       5.94%         49       3.11%       4.67%       0.89%       1.33%       4.00%       6.00%         50       3.13%       4.70%       0.89%       1.34%       4.02%       6.04%	45	2.96%			4.44%			0.84%			1.26%			3.80%			5.70%		
48       3.08%       4.62%       0.88%       1.32%       3.96%       5.94%         49       3.11%       4.67%       0.89%       1.33%       4.00%       6.00%         50       3.13%       4.70%       0.89%       1.34%       4.02%       6.04%	46	3.00%			4.50%			0.85%			1.28%			3.85%			5.78%		
49     3.11%     4.67%     0.89%     1.33%     4.00%     6.00%       50     3.13%     4.70%     0.89%     1.34%     4.02%     6.04%	47	3.04%			4.56%			0.87%			1.30%			3.91%			5.86%		
49     3.11%     4.67%     0.89%     1.33%     4.00%     6.00%       50     3.13%     4.70%     0.89%     1.34%     4.02%     6.04%	48	3.08%			4.62%			0.88%			1.32%			3.96%			5.94%		
50 3.13% 4.70% 0.89% 1.34% 4.02% 6.04%	49	3.11%			4.67%									4.00%			6.00%		
	50																		
51 3.15% 4.73% 0.90% 1.35% 4.05% 6.08%	51	3.15%			4.73%			0.90%			1.35%			4.05%			6.08%		



# Appendix A Member Contribution Rates (Continued)

# Miscellaneous Members' Contribution Rates from the June 30, 2014 Actuarial Valuation

		Basic Only				COLA Only					Total							
		First \$350 of Ionthly Salar		Salary	in Excess of	\$350		First \$350 o Ionthly Sala		Salary	in Excess o	of \$350		First \$350 o Ionthly Sala		Salary	in Excess o	of \$350
Entry Age	Tier 1	Tier 2 & Tier 3	Tier 4	Tier 1	Tier 2 & Tier 3	Tier 4	Tier 1	Tier 3	Tier 4	Tier 1	Tier 3	Tier 4	Tier 1	Tier 3	Tier 4	Tier 1	Tier 3	Tier 4
52	3.16%			4.74%			0.90%			1.35%			4.06%			6.09%		
53	3.15%			4.73%			0.90%			1.35%			4.05%			6.08%		
54	3.14%			4.71%			0.89%			1.34%			4.03%			6.05%		
55	3.14%			4.71%			0.89%			1.34%			4.03%			6.05%		
56	3.14%			4.71%			0.89%			1.34%			4.03%			6.05%		
57	3.14%			4.71%			0.89%			1.34%			4.03%			6.05%		
58	3.14%			4.71%			0.89%			1.34%			4.03%			6.05%		
59 &																		
Over	3.14%			4.71%			0.89%			1.34%			4.03%			6.05%		

The rates above are full contribution rates expressed as a percentage of salary based upon the following interest and salary scale assumptions. Members who enter prior to 1/1/1975 contribute on the basis of their actual entry age and all others contribute on the basis of a single entry age of 35.

		Tier 5	
		All Eligible Pay <sup>(1)</sup>	
	Basic Only	COLA Only	Total
All members	7.04%	1.08%	8.12%

<sup>(1)</sup> It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2014 is equal to \$115,064 (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2014 (reference: Section 7522.10(d)).



## Appendix A

## **Member Contribution Rates (Continued)**

# Miscellaneous Members' Contribution Rates from the June 30, 2014 Actuarial Valuation

Interest: 7.50% per annum

COLA: Tier 1: 3.25%

Tier 2: 0.00%

Tier 3: 2.00%

Tier 4: 2.00%

Tier 5: 2.00%

Mortality: RP-2000 Combined Healthy Mortality Table projected with scale BB to 2022 weighted 40% male

and 60% female

Salary increase: Inflation (3.25%) + Across-the-Board Increase (0.25%) + Merit (See Exhibit V).

COLA Loading Factor: Tier 1<sup>(2)</sup>: 28.47%

Tier 3<sup>(2)</sup>: 35.11% Tier 4<sup>(2)</sup>: 17.68% Tier 5: 15.34%

## Non-Refundability factor:

Tier 1: 100.00% Tier 2: 99.90% Tier 3: 97.56% Tier 4: 93.20% Tier 5: 91.03%



<sup>(2)</sup> Factors have been adjusted to reflect a reserve carried by the Board to reduce part of the COLA contributions.

Appendix A

Member Contribution Rates (Continued)

# Safety Members' Contribution Rates from the June 30, 2014 Actuarial Valuation

	Basic Only						COLA	Only					To	otal		
•	Fi	rst \$350 of	-			First \$350 of		-			I	First \$350 o	f			
	Mo	onthly Salary	Salary in	Excess of \$350	M	onthly Salar	y	Salary	in Excess of	of \$350	M	onthly Sala	ry	Salary	in Excess of	of \$350
Entry Age	Tier 1	Tier 2 & Tier 3	Tier 1	Tier 2 & Tier 3	Tier 1	Tier 2	Tier 3	Tier 1	Tier 2	Tier 3	Tier 1	Tier 2	Tier 3	Tier 1	Tier 2	Tier 3
18	5.75%		8.62%		3.09%			4.63%			8.84%			13.25%		
19	5.82%		8.73%		3.13%			4.69%			8.95%			13.42%		
20	5.89%		8.84%		3.17%			4.75%			9.06%			13.59%		
21	5.97%		8.95%		3.21%			4.81%			9.18%			13.76%		
22	6.04%		9.06%		3.25%			4.87%			9.29%			13.93%		
23	6.12%		9.18%		3.29%			4.93%			9.41%			14.11%		
24	6.20%		9.30%		3.33%			5.00%			9.53%			14.30%		
25	6.27%		9.41%		3.37%			5.06%			9.64%			14.47%		
26	6.36%		9.54%		3.42%			5.13%			9.78%			14.67%		
27	6.44%		9.66%		3.46%			5.19%			9.90%			14.85%		
28	6.53%		9.79%		3.51%			5.26%			10.04%			15.05%		
29	6.61%	6.29%	9.92%	9.43%	3.55%	1.91%	1.78%	5.33%	2.86%	2.67%	10.16%	8.20%	8.07%	15.25%	12.29%	12.10%
30	6.70%		10.05%		3.60%			5.40%			10.30%			15.45%		
31	6.79%		10.18%		3.65%			5.47%			10.44%			15.65%		
32	6.88%		10.32%		3.70%			5.55%			10.58%			15.87%		
33	6.98%		10.47%		3.75%			5.63%			10.73%			16.10%		
34	7.08%		10.62%		3.81%			5.71%			10.89%			16.33%		
35	7.19%		10.78%		3.86%			5.79%			11.05%			16.57%		
36	7.29%		10.94%		3.92%			5.88%			11.21%			16.82%		
37	7.41%		11.11%		3.98%			5.97%			11.39%			17.08%		
38	7.53%		11.30%		4.05%			6.07%			11.58%			17.37%		
39	7.67%		11.50%		4.12%			6.18%			11.79%			17.68%		
40	7.79%		11.69%		4.19%			6.28%			11.98%			17.97%		
41	7.87%		11.81%		4.23%			6.35%			12.10%			18.16%		
42	7.95%		11.93%		4.27%			6.41%			12.22%			18.34%		
43	8.03%		12.04%		4.31%			6.47%			12.34%			18.51%		
44	8.09%		12.14%		4.35%			6.52%			12.44%			18.66%		
45	8.14%		12.21%		4.37%			6.56%			12.51%			18.77%		
46	8.14%		12.21%		4.37%			6.56%			12.51%			18.77%		
47	8.09%		12.14%		4.35%			6.52%			12.44%			18.66%		
48	7.99%		11.99%		4.29%			6.44%			12.28%			18.43%		
49 &																
Over	7.85%		11.78%		4.22%			6.33%			12.07%			18.11%		

The rates above are full contribution rates expressed as a percentage of salary based upon the following interest and salary scale assumptions. Members who enter prior to 1/1/1975 contribute on the basis of their actual entry age and all others contribute on the basis of a single entry age of 29.



# Appendix A

**Member Contribution Rates (Continued)** 

## Safety Members' Contribution Rates from the June 30, 2014 Actuarial Valuation

		Tier 4	
		All Eligible Pay <sup>(1)</sup>	
	Basic Only	COLA Only	Total
All members	10.54%	2.57%	13.11%

<sup>(1)</sup> It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2014 is equal to \$115,064 (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2014 (reference: Section 7522.10(d)).

Interest: 7.50% per annum

COLA: Tier 1: 3.25%

Tier 2: 2.00% Tier 3: 2.00% Tier 4: 2.00%

Mortality: RP-2000 Combined Healthy Mortality Table projected with scale BB to 2022 set back one year for

males and set forward two years for females weighted 70% male and 30% female

Salary increase: Inflation (3.25%) + Across-the-Board Increase (0.25%) + Merit (See Exhibit V).

COLA Loading Factor: Tier  $1^{(2)}$ : 53.74% Tier  $2^{(2)}$ : 30.35% Tier  $3^{(2)}$ : 28.36% Tier 4: 24.38%

#### Non-Refundability factor:

Tier 1: 99.97% Tier 2: 99.23% Tier 3: 97.91% Tier 4: 96.85%



<sup>(2)</sup> Factors have been adjusted to reflect a reserve carried by the Board to reduce part of the COLA contributions.

Appendix B
UAAL Amortization Schedule as of June 30, 2014 (Dollar Amounts in Thousands)

	Date Established	Source	Initial Amount	Outstanding Balance	Years Remaining	Annual Payment
Miscellaneous	June 30, 2012	Restart amortization	\$814,400	\$823,028	21	\$58,006
	June 30, 2013	Actuarial loss	34,060	34,052	19	2,566
	June 30, 2014	Actuarial gain	(125,185)	(125, 182)	20	(9,112)
	June 30, 2014	Assumption changes	(46,607)	(46,607)	20	(3,393)
Subtotal		-		\$685,291		\$48,067
Safety	June 30, 2010	LEMA	\$4,047	\$3,009	6	572
·	June 30, 2012	Restart amortization	493,928	499,160	21	35,180
	June 30, 2013	Actuarial loss	53,174	53,161	19	4,006
	June 30, 2013	DSA Retirement Incentive	6,134	5,173	4	1,422
	June 30, 2014	Actuarial gain	(40,247)	(40,247)	20	(2,930)
	June 30, 2014	Assumption changes	62,388	62,388	20	4,541
Subtotal				\$582,644		\$42,791
<b>Grand Total</b>				\$1,267,935		\$90,858



# Appendix C

## **Normal Cost Rates with Additional Member Pick-ups**

#### **Total Normal Cost Contribution Rates**

(For the County and Elected Officials Only) Employer and Member Normal Cost Rates

(A) Normal Cost (Prior to any Pick Up of Additional Normal Cost by the Member)

#### Miscellaneous

		Percent o Member Pay	-		Percent of Payroll Member Paying Half Rate
	Tier 1*	Tier 2	Tier 3	Tier 4	
Employer	11.80%	10.79%	13.90%	9.54%	Not Applicable
Member	4.75%	3.54%	4.78%	7.20%	
Member COLA Buydown	1.36%	0.00%	0.34%	0.34%	
Total	17.91%	14.33%	19.02%	17.08%	

#### Safety

	Pe	ercent of Payroll		Percent of P	ayroll
	Memb	ber Paying Full R	ate	Member Paying	Half Rate
	Tier 1*	Tier 2	Tier 3	Tier 2	Tier 3
Employer	22.36%	20.10%	19.44%	27.27%	25.43%
Member	15.25%	12.29%	12.10%	6.15%	6.05%
Member COLA Buydown	1.87%	0.43%	0.39%	0.21%	0.20%
Total	39.48%	32.82%	31.93%	32.63%	31.68%



<sup>\*</sup> These are the single entry age rates at age 35 and 29 for Miscellaneous and Safety, respectively.

# Appendix C

# Normal Cost Rates with Additional Member Pick-ups (continued)

#### **Total Normal Cost Contribution Rates**

(For the County and Elected Officials Only) Employer and Member Normal Cost Rates

(B) Normal Cost (Assuming Exactly 50:50 Payment by the Employer and the Member)

#### Miscellaneous

		Percent o Member Payi	-		Percent of Payroll Member Paying Half Rate
	Tier 1	Tier 2	Tier 3	Tier 4	
Employer	8.96%	7.17%	9.57%	8.60%	Not Applicable
Member	7.69%	7.17%	9.25%	8.28%	
Member COLA Buydown	1.27%	0.00%	0.32%	0.32%	
Total	17.92%	14.34%	19.14%	17.20%	

#### Safety

		Percent of Payroll Member Paying Full Rate			Payroll g Half Rate
	Tier 1	, &			Tier 3
Employer	19.74%	16.43%	16.01%	16.43%	16.01%
Member	18.26%	16.08%	15.66%	16.08%	15.66%
Member COLA Buydown	1.48%	0.35%	0.35%	0.35%	0.35%
Total	39.49%	32.86%	32.02%	32.86%	32.02%



# Appendix C

# Normal Cost Rates with Additional Member Pick-ups (continued)

#### **Total Normal Cost Contribution Rates**

(For the County and Elected Officials Only) Employer and Member Normal Cost Rates

(C) Normal Cost (Assuming Phase-in to 50:50 Payment by the Employer and the Member)

G15A – Assuming Member Picks Up a Total of 2/5 of the Difference between (A) and (B) for 2015/2016

#### Miscellaneous

		Percent of Payroll Member Paying Half Rate			
	Tier 1	Tier 2	Tier 3	Tier 4	
Employer	10.66%	9.34%	12.17%	9.16%	Not Applicable
Member	5.93%	4.99%	6.57%	7.63%	
Member COLA Buydown	1.32%	0.00%	0.33%	0.33%	
Total	17.91%	14.33%	19.07%	17.12%	

#### Safety

		Percent of Payroll Member Paying Full Rate			Payroll g Half Rate
	Tier 1	Tier 2	Tier 3	Tier 2	Tier 3
Employer	21.31%	18.63%	18.07%	22.33%	21.66%
Member	16.45%	13.81%	13.52%	10.12%	9.89%
Member COLA Buydown	1.71%	0.40%	0.37%	0.27%	0.26%
Total	39.47%	32.84%	31.96%	32.72%	31.81%



# Appendix C

# Normal Cost Rates with Additional Member Pick-ups (continued)

#### **Total Normal Cost Contribution Rates**

(For the County and Elected Officials Only) Employer and Member Normal Cost Rates

G14A – Assuming Member Picks Up a Total of 2/4 of the Difference between (A) and (B) for 2015/2016

#### Miscellaneous

		Percent of Payroll Member Paying Half Rate			
	Tier 1	Tier 2	Tier 3	Tier 4	
Employer	10.38%	8.98%	11.74%	9.07%	Not Applicable
Member	6.22%	5.36%	7.02%	7.74%	
Member COLA Buydown	1.32%	0.00%	0.33%	0.33%	
Total	17.92%	14.34%	19.09%	17.14%	

#### Safety

		Percent of Payroll  Member Paying Full Rate			Payroll g Half Rate
	Tier 1	, 6			Tier 3
Employer	21.05%	18.27%	17.73%	21.35%	20.72%
Member	16.76%	14.19%	13.88%	11.12%	10.86%
Member COLA Buydown	1.68%	0.39%	0.37%	0.28%	0.28%
Total	39.49%	32.85%	31.98%	32.75%	31.86%



# Appendix C

# Normal Cost Rates with Additional Member Pick-ups (continued)

#### **Total Normal Cost Contribution Rates**

(For the County and Elected Officials Only) Employer and Member Normal Cost Rates

G13A – Assuming Member Picks Up a Total of 2/3 of the Difference between (A) and (B) for 2015/2016

#### Miscellaneous

		Percent of Payroll Member Paying Half Rate			
	Tier 1	Tier 2	Tier 3	Tier 4	
Employer	9.91%	8.38%	11.01%	8.91%	Not Applicable
Member	6.71%	5.96%	7.76%	7.92%	
Member COLA Buydown	1.30%	0.00%	0.33%	0.33%	
Total	17.92%	14.34%	19.10%	17.16%	

#### Safety

		Percent of Payroll Member Paying Full Rate			Payroll g Half Rate
	Tier 1 Tier 2 Tier 3		Tier 3	Tier 2	Tier 3
Employer	20.61%	17.65%	17.15%	19.71%	19.15%
Member	17.26%	14.82%	14.47%	12.77%	12.46%
Member COLA Buydown	1.61%	0.38%	0.36%	0.30%	0.30%
Total	39.48%	32.85%	31.98%	32.78%	31.91%



# Appendix C

# Normal Cost Rates with Additional Member Pick-ups (continued)

#### **Total Normal Cost Contribution Rates**

(For the County and Elected Officials Only) Employer and Member Normal Cost Rates

G13B – Assuming Member Picks Up a Total of 1/3 of the Difference between (A) and (B) for 2015/2016

#### Miscellaneous

		Percent of Payroll Member Paying Half Rate			
	Tier 1	Tier 2	Tier 3	Tier 4	
Employer	10.85%	9.58%	12.46%	9.23%	Not Applicable
Member	5.73%	4.75%	6.27%	7.56%	
Member COLA Buydown	1.33%	0.00%	0.33%	0.33%	
Total	17.91%	14.33%	19.06%	17.12%	

#### Safety

		Percent of Payroll Member Paying Full Rate			Payroll g Half Rate
	Tier 1	, ,			Tier 3
Employer	21.49%	18.88%	18.30%	22.99%	22.29%
Member	16.25%	13.55%	13.29%	9.46%	9.25%
Member COLA Buydown	1.74%	0.40%	0.38%	0.26%	0.25%
Total	39.48%	32.83%	31.97%	32.71%	31.79%

Note: Member rates shown are for annual salary in excess of \$4,200 (or monthly salary of \$350). For annual salary less than \$4,200 (or monthly salary of \$350), the member rates are equal to 2/3 of the rates shown. Also, the member COLA buydown is a non-cash contribution item.

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