

Actuarial Valuation and Review as of December 31, 2013



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 this actuarial valuation may not be applicable for other purposes.

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The Segal Company
100 Montgomery Street, Suite 500 San Francisco, CA 94104
T 415.263.8200 F 415.263.8290 www.segalco.com

Apil 23, 2014

Board of Retirement Sonoma County Employees' Retirement Association 4333 Aviation Boulevard, Suite 100 Santa Rosa, CA 95403

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of December 31, 2013. It summarizes the actuarial data used in the valuation, establishes the funding requirements for the fiscal year beginning July 1, 2015 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 Plan. The census and financial information on which our calculations were based was prepared by SCERA. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, 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.

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 Plan.

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.

*B*y:

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

Vice President and Associate Actuary

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Purpose

This report has been prepared by Segal Consulting to present a valuation of the Sonoma County Employees' Retirement Association as of December 31, 2013. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of the Retirement Association, as administered by the Board of Retirement;
- > The characteristics of covered active members, inactive vested members, retired members and beneficiaries as of December 31, 2013, provided by the Retirement Association;
- The assets of the Plan as of December 31, 2013, provided by the Retirement Association;
- > 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 that fully fund the Association's liabilities, and that, 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 Association's assets, liabilities and future contribution requirements. Our calculations are based upon member data and financial information provided to us by the Association's staff. This information has not been audited by us, but it has been reviewed and found to be reasonably consistent, both internally and with prior years' information.

The contribution requirements are determined as a percentage of payroll. The Association's employer rates provide for both normal cost and a contribution to amortize any unfunded or overfunded actuarial accrued liabilities. Consistent with previous valuations, we have applied the funding policy adopted by the Board to amortize the Association's outstanding balance of the December 31, 2007 unfunded actuarial accrued liability (UAAL) as well as any new UAAL established on each subsequent actuarial valuation after the December 31, 2007 valuation over separate 20-year declining periods.

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 This Valuation

The following key findings were the result of this actuarial valuation:

> In the actuarial valuation as of December 31, 2012, the cost of the additional retirement benefits from the cashouts was funded by applying a separate "loading" factor to each of the General and Safety employees to increase their projected final average compensation during their last year of employment. Since the adoption of the results in the December 31, 2012 actuarial valuation report, all employee groups with the exception of those from the Court and Valley of the Moon (VOM) have agreed to the elimination of the cashouts effective between March 2013 and June 2014 depending on bargaining unit. The restated liabilities as well as the employer and employee contribution rates recalculated as of December 31, 2012 to reflect that elimination were provided in our letter dated March 12, 2014.

For documentation and comparison purposes, we have also provided in Section 1, Summary of Key Valuation Results, the values before and after the restatement as of December 31, 2012. Other than the values provided in Section 1, the December 31, 2012 values in the rest of this report have been revised to show only the restated values.

- > The ratio of the valuation value of assets to actuarial accrued liabilities increased from 79.0% to 81.8%. The funded ratio measured on a market value basis increased from 81.0% to 90.1%. The Association's unfunded actuarial accrued liability decreased from \$494.2 million as of December 31, 2012 to \$449.4 million as of December 31, 2013. A complete reconciliation of the Association's unfunded actuarial accrued liability is provided in Section 3, Exhibit H.
- > The average employer contribution rate calculated in this valuation decreased from 22.56% of payroll to 21.08% of payroll. This change was primarily due to: (i) higher than expected returns on the smoothed value of investments, (ii) decrease in UAAL rate due to higher than expected increases in total payroll, and (iii) demographic changes, offset to some degree by (iv) contribution losses due to 18-month delay between the date of the valuation and the date of rate implementation, (v) higher than expected individual salary increases and (vi) other experience losses. A complete reconciliation of the Association's aggregate employer rate is provided in Section 2, Subsection D (see Chart 14).
- > The average member rate calculated in this valuation has remained at 11.99% of payroll. A complete reconciliation of the Association's average member rate is provided in Section 2, Subsection D (see Chart 15).
 - Also of note is that based on our recommendation, SCERA has decided to use the discretion made recently available by AB1380 to no longer round the member's contribution rate to the nearest \(\frac{1}{4}\% \) as previously required by the California Public Employees' Pension Reform Act of 2013 (CalPEPRA). This should allow for exactly one-half of the Normal Cost to be paid (each) by the employees and employers covered under the CalPEPRA plans (i.e., General and Safety Plan B).
- > As indicated in Section 2, Subsection B (see Chart 7) of this report, the total unrecognized investment gain as of December 31, 2013 was \$206.0 million (as compared to an unrecognized gain of \$48.1 million in the December 31, 2012 valuation). This investment gain will be recognized in the determination of the actuarial value of assets for funding

- Reference: Pg. 18

Reference: Pg. 19

Reference: Pg. 6



purposes over the next few years, and will help offset any investment losses that may occur after December 31, 2013. This implies that earning the assumed rate of investment return of 7.50% per year (net of expenses) on a **market value** basis will result in investment gains on the actuarial value of assets in the next few years. So, if the actuarial market return is equal to the assumed 7.50% rate and all other actuarial assumptions are met, the contribution requirements would decrease in the next few years. The potential impact associated with the deferred investment gains may be illustrated as follows:

- If the net deferred gains were recognized immediately and entirely in the valuation value of assets, the funded ratio would increase from 81.8% to 90.1%.
- If the net deferred gains were recognized immediately and entirely in the valuation value of assets, the aggregate employer rate would decrease from 21.1% to 16.7%.
- > The actuarial valuation report as of December 31, 2013 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.
- > Safety-County members pay an additional contribution amount equal to 3.00% of payroll effective February 1, 2005.
- > General-County and General-Court members pay an additional contribution amount equal to 3.03% of payroll from July 1, 2004 to June 30, 2024. Effective July 1, 2024, the employer contribution rate will have to increase to offset for this expiration of the 3.03% rate paid by the General-County and General-Court members.

Reference: Pg. 34

> In this report, we have provided the amount of transfer that would be required to "true-up" the COLA and the Retired Member reserves so that the reserves after the "true-up" are equal to the present value of the COLA and retiree benefits for members currently receiving such benefits.

Reference: Pg. 16

- > Effective with the December 31, 2007 valuation, we have calculated a separate Normal Cost rate for Safety VOM based on the demographics of Safety employees of VOM.
- > Any new Safety UAAL will continue to be allocated to Safety County and Safety VOM based on their proportions of payroll to the total Safety payroll.

Reference: Pg. 15

> Effective with the restatement of the December 31, 2012 contribution rates, we have calculated a separate Normal Cost rate for General Plan A – County. Note that the Normal Cost rate for all other General employers continues to be developed on a pooled basis. For example, the employer Normal Cost for General Plan A – VOM is the same as that calculated for General Plan A – Court. The employer Normal Cost for General Plan B – VOM is the same as that calculated for General Plan B – County and General Plan B – Court.

Similar to Safety, any new General UAAL will continue to be allocated to General – County, General – Court and General – VOM based on their proportions of payroll to the total General payroll.



Reference: Pg. 41

- > As a result of the phase-in of the employer's rates for the calendar year 2013 (determined in the December 31, 2010 valuation and the December 31, 2011 valuation), we have determined that the employer's actual contributions do equal 100% of an Annual Required Contributions but determined using an amortization period of about 27 years (an amortization period of up to 30 years is allowed by the Governmental Accounting Standards Board or GASB under Statements 25 and 27). This is noted in Section 4, Exhibit II.
- As noted by the actuarial auditor in their audit report for the December 31, 2012 valuation, we have followed subsequent directions provided by SCERA to assume a 1.5% (instead of a 1.8%) per year of service benefit for CalPEPRA members who are expected by the assumptions to retire with a non-service connected disability benefit. (Note that this change is only impacting those members who are not expected to retire with one-third of final salary with augmented service).
 - Also, as suggested by the actuarial auditor, SCERA has subsequently provided Segal with service for those active and deferred members who have earned service in both the General and the Safety plans. Even though reflecting the split service for such members would result in a small modification in the contribution rate requirement, we have not reflected that in this valuation. This is because in order to permanently reflect such modification in future valuations, changes would have to be made in how the data is maintained and reported by SCERA both before and after retirement for those members. We recommend that SCERA evaluate the feasibility of making such changes to their Pension Administration System before Segal implements a corresponding modification to our valuation.
- > 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 68 replaces Statement 27 and is for employer reporting. It is important to note that the new GASB rules only redefine pension expense for financial reporting purposes, and do not apply to contribution amounts for actual pension funding purposes. Employers and plans can still develop and adopt funding policies under current practices. Because these new Statements are not effective until the 2014 calendar year for plan reporting and the fiscal year ending June 30, 2015 for employer reporting, we have continued to use Statements 25 and 27 in preparing the financial reporting information in this report.

<u>Impact of Future Experience on Contribution Rates</u>

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.



	December 31, 2013		December 31, 2012 ⁽¹⁾	
Employer Contribution Rates:		Estimated		Estimated
•	Total Rate	Annual Amount ⁽²⁾	Total Rate	Annual Amount ⁽²⁾
General Plan A – County	19.39%	\$42,904	21.09%	\$46,666
General Plan A– Court	29.05%	3,726	29.42%	3,773
General Plan A– Valley of the Moon	18.78%	49	18.62%	49
General Plan B – County	14.45%	3,395	16.52%	3,881
General Plan B – Court	23.45%	59	24.24%	61
General Plan B – Valley of the Moon	13.18%	0	13.44%	0
Safety Plan A – County	26.84%	17,716	27.66%	18,257
Safety Plan A – Valley of the Moon	34.79%	1,282	35.55%	1,311
Safety Plan B – County	19.81%	404	20.86%	426
Safety Plan B – Valley of the Moon	23.30%	15	24.50%	15
All Categories combined	21.08%	69,550	22.56%	74,439
Average Member Contribution Rates ⁽³⁾ :		Estimated		Estimated
_	Total Rate	Annual Amount ⁽²⁾	Total Rate	Annual Amount ⁽²⁾
General Plan A – County (Average Entry Age: 37)	12.14%	\$26,862	12.14%	\$26,862
General Plan A – Court (Average Entry Age: 36)	12.30%	1,577	12.30%	1,577
General Plan A – Valley of the Moon (Average Entry Age: 52)	11.91%	32	11.91%	32
General Plan B – County	10.42%	2,448	10.28%	2,415
General Plan B – Court	10.42%	26	10.28%	26
General Plan B – Valley of the Moon	7.39%	0	7.25%	0
Safety Plan A – County (Average Entry Age: 30)	12.03%	7,940	12.03%	7,940
Safety Plan A – Valley of the Moon (Average Entry Age: 35)	10.31%	380	10.31%	380
Safety Plan B – County	14.08%	287	14.75%	301
Safety Plan B – Valley of the Moon	10.87%	7	11.75%	7
All Categories combined	11.99%	39,559	11.99%	39,540

⁽¹⁾ After restatement of rates for cashouts.



 $^{^{(2)}}$ Based on December 31, 2013 projected annual compensation.

⁽³⁾ Includes an additional 3.03% and 3.00% of payroll for General (County and Court) and Safety-County members, respectively.

Summary of Key Valuation Results – continued (Dollar amounts in thousands)					
	December 31, 2013	December 31, 2012 ⁽⁴⁾			
Funded Status:					
Actuarial accrued liability (AAL)	\$2,466,224	\$2,351,087			
Valuation value of assets (VVA) ⁽⁵⁾	2,016,781	1,856,847			
Market value of assets (MVA) ⁽⁵⁾	2,222,773	1,904,927			
Funded percentage on a VVA basis	81.8%	79.0%			
Funded percentage on a MVA basis	90.1%	81.0%			
Unfunded Actuarial Accrued Liability on a VVA basis	\$449,443	\$494,240			
Unfunded Actuarial Accrued Liability on a MVA basis	243,451	446,160			
Key Assumptions:					
Interest rate	7.50%	7.50%			
Inflation rate	3.25%	3.25%			
Across the board salary increase	0.75%	0.75%			

⁽⁴⁾ After restatement of rates for cashouts.



⁽⁵⁾ Excludes non-valuation reserves.

	December 31, 2012 (before restatement of rates for cashouts)		December 31, 2012 (after restatement of rates for cashouts)	
Employer Contribution Rates:		Estimated		Estimated
	Total Rate	Annual Amount ⁽¹⁾	Total Rate	Annual Amount ⁽¹⁾
General Plan A – County	22.35%	\$49,454	21.09%	\$46,666
General Plan A– Court	29.42%	3,773	29.42%	3,773
General Plan A– Valley of the Moon	18.62%	49	18.62%	49
General Plan B – County	17.17%	4,034	16.52%	3,881
General Plan B – Court	24.24%	61	24.24%	61
General Plan B – Valley of the Moon	13.44%	0	13.44%	0
Safety Plan A – County	30.18%	19,920	27.66%	18,257
Safety Plan A – Valley of the Moon	35.55%	1,311	35.55%	1,311
Safety Plan B – County	22.17%	452	20.86%	426
Safety Plan B – Valley of the Moon	24.50%	15	24.50%	15
All Categories combined	23.96%	79,069	22.56%	74,439
Average Member Contribution Rates ⁽²⁾ :		Estimated		Estimated
	Total Rate	Annual Amount ⁽¹⁾	Total Rate	Annual Amount ⁽¹⁾
General Plan A – County (Average Entry Age: 37)	12.45%	\$27,548	12.14%	\$26,862
General Plan A – Court (Average Entry Age: 36)	12.30%	1,577	12.30%	1,577
General Plan A – Valley of the Moon (Average Entry Age: 52)	11.91%	32	11.91%	32
General Plan B – County	10.28%	2,415	10.28%	2,415
General Plan B – Court	10.28%	26	10.28%	26
General Plan B – Valley of the Moon	7.25%	0	7.25%	0
Safety Plan A – County (Average Entry Age: 30)	12.50%	8,251	12.03%	7,940
Safety Plan A – Valley of the Moon (Average Entry Age: 35)	10.31%	380	10.31%	380
Safety Plan B – County	14.75%	301	14.75%	301
Safety Plan B – Valley of the Moon	11.75%	7	11.75%	7
All Categories combined	12.29%	40,537	11.99%	39,540

⁽¹⁾ Based on December 31, 2013 projected annual compensation.



⁽²⁾ Includes an additional 3.03% and 3.00% of payroll for General (County and Court) and Safety-County members, respectively.

Summary of Key Valuation Results – continued (Dollar amounts in thousands)					
	December 31, 2012 (before restatement of rates for cashouts)	December 31, 2012 (after restatement of rates for cashouts)			
Funded Status:					
Actuarial accrued liability (AAL)	\$2,383,700	\$2,351,087			
Valuation value of assets (VVA) ⁽³⁾	1,856,847	1,856,847			
Market value of assets (MVA) ⁽³⁾	1,904,927	1,904,927			
Funded percentage on a VVA basis	77.9%	79.0%			
Funded percentage on a MVA basis	79.9%	81.0%			
Unfunded Actuarial Accrued Liability on a VVA basis	\$526,853	\$494,240			
Unfunded Actuarial Accrued Liability on a MVA basis	478,773	446,160			
Key Assumptions:					
Interest rate	7.50%	7.50%			
Inflation rate	3.25%	3.25%			
Across the board salary increase	0.75%	0.75%			

⁽³⁾ Excludes non-valuation reserves.



SECTION 1: Valuation Summary for the Sonoma County Employees' Retirement Association

	December 31, 2013	December 31, 2012	Percentage Change
Active Members:			
Number of members	3,833	3,620	5.9%
Average age	46.0	46.1	N/A
Average service	9.9	10.2	N/A
Projected total compensation	\$329,893,979	\$302,764,028	9.0%
Average projected compensation	\$86,067	\$83,636	2.9%
Retired Member and Beneficiaries:			
Number of members:			
Service retired	3,296	3,194	3.2%
Disability retired	614	610	0.7%
Beneficiaries	484	454	6.6%
Total	4,394	4,258	3.2%
Average age	67.5	67.0	N/A
Average monthly benefit	\$2,601	\$2,565	1.4%
Vested Terminated Members:			
Number of terminated vested members ⁽¹⁾	918	876	4.8%
Average age	46.9	46.8	N/A
Summary of Financial Data (dollar amounts in thousands):		
Market value of assets	\$2,222,773	\$1,904,927	16.7%
Return on market value of assets	19.49%	14.16%	N/A
Actuarial value of assets	\$2,016,781	\$1,856,847	8.6%
Return on actuarial value of assets	11.38%	1.82%	N/A
Valuation value of assets	\$2,016,781	\$1,856,847	8.6%
Return on valuation value of assets	11.38%	1.82%	N/A

⁽¹⁾ Includes members who choose to leave their contributions on deposit even though they have less than five years of service.



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 nine valuations can be seen in this chart.

CHART 1
Member Population: 2005 – 2013

Year Ended December 31	Active Members	Vested Terminated Members ⁽¹⁾	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
2005	4,230	589	2,939	0.83
2006	4,212	729	3,095	0.91
2007	4,246	763	3,282	0.95
2008	4,193	853	3,399	1.01
2009	3,984	881	3,570	1.12
2010	3,780	904	3,780	1.24
2011	3,587	919	4,021	1.38
2012	3,620	876	4,258	1.42
2013	3,833	918	4,394	1.39

⁽¹⁾ Includes members who choose to leave their contributions on deposit even though they have less than five years of service.



Active Members

Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there were 3,833 active members with an average age of 46.0, average years of service of 9.9 years and average projected compensation of \$86,067. The 3,620 active members in the prior valuation had an average age of 46.1, average service of 10.2 years and average projected compensation of \$83,636.

Among the active members, there were none with unknown age.

Inactive Members

In this year's valuation, there were 918 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 876 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 December 31, 2013

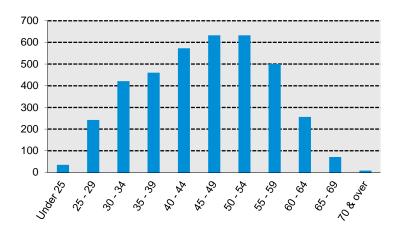
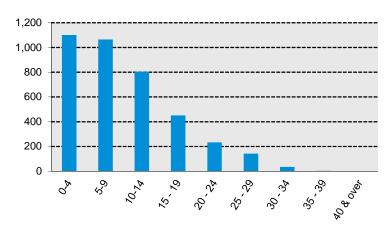


CHART 3

Distribution of Active Members by Years of Service as of December 31, 2013





Retired Members and Beneficiaries

As of December 31, 2013, 3,910 retired members and 484 beneficiaries were receiving total monthly benefits of \$11,428,122. For comparison, in the previous valuation, there were 3,804 retired members and 454 beneficiaries receiving monthly benefits of \$10,920,118.

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

CHART 4
Distribution of Retired Members by Type and by Monthly Amount as of December 31, 2013

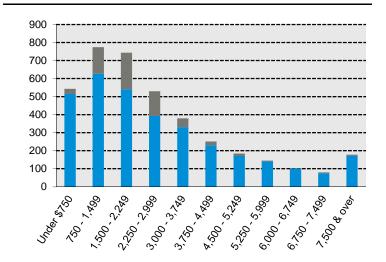
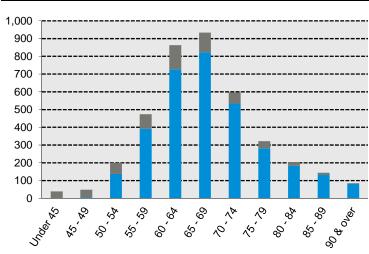


CHART 5
Distribution of Retired Members by Type and by Age as of December 31, 2013



■ Disability
■ Service



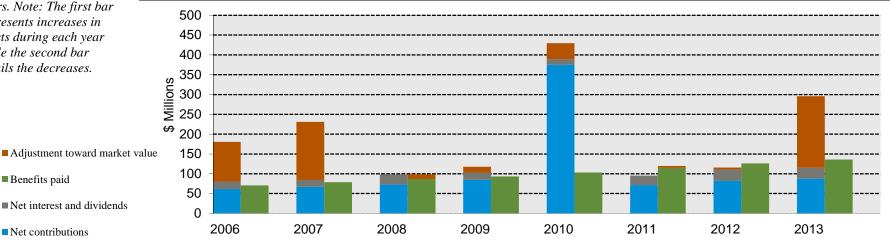
B. FINANCIAL INFORMATION

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, E and F.

The chart depicts the components of changes in the actuarial value of assets over the last eight years. Note: The first bar represents increases in assets during each year while the second bar details the decreases.

CHART 6 Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended December 31, 2006 - 2013





■ Benefits paid

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 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 has no immediate effect on the actuarial value.

The determination of the actuarial and valuation value of assets is provided on the following page.

The following are points of note in the asset smoothing method used by the actuary in developing the actuarial value and valuation value of assets: (1) the non-investment cash flow included contributions received, benefit payments and administrative expenses made during the last calendar year and (2) the amount subject to smoothing is the actual market return earned during the last calendar year that was in excess/below the expected return on the valuation value of assets.



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

CHART 7

Determination of Actuarial and Valuation Value of Assets for Year Ended December 31, 2013

	Plan Year Ending	Actual Return	Expected Return	Investment	Deferred	Deferred
	December 31	On Market Value	On Valuation Value	Gain/(Loss)	Factor	Return
	2009	\$227,013,233	\$122,788,085	\$104,225,148	0.0	\$0
	2010	210,445,768	132,039,061	78,406,707	0.2	15,681,341
	2011	4,854,307	144,723,796	(139,869,489)	0.4	(55,947,796)
	2012	242,604,327	142,862,439	99,741,888	0.6	59,845,133
	2013	370,312,599	137,296,052	233,016,547	0.8	186,413,238
1.	Total Deferred Return					\$205,991,916
2.	Net Market Value of Assets					2,222,772,738
3.	Actuarial Value of Assets (Ite	em 2 – Item 1)				\$2,016,780,822
4.	Ratio of Actuarial Value to N	Aarket Value				90.7%
5.	Non-Valuation Reserves and	Other Adjustments				
	a. Interest Fluctuation Reserv	ve				\$0
	b. Undistributed Reserve					0
	c. Negative Contingency Res	serve (Before Any Transfer	r)			(469,330,893)
	d. Transfer to True-Up Reser	rves				299,914
	e. Negative Contingency Res	serve (After Transfers) (Ite	m 5c + Item 5d)			(469,030,979)
	f. Total (Item 5a + Item 5b +	\$0				
6.	Valuation Value of Assets (It	tem 3 – Item 5f)				\$2,016,780,822

The amounts of deferred return as of December 31, 2013 to be recognized in each subsequent valuation are as follows:

December 31, 2014	\$54,259,131
December 31, 2015	38,577,789
December 31, 2016	66,551,687
December 31, 2017	46,603,309
Total	\$205,991,916

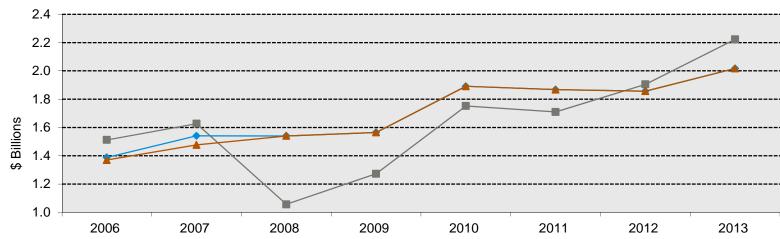


The market value, actuarial value, and valuation value of assets are representations of the SCERA's financial status. As investment gains and losses are gradually taken into account, the actuarial value of assets tracks the market value of assets, but with less volatility. The valuation value of assets is the actuarial value, excluding any non-valuation reserves. The valuation asset value is significant because SCERA's 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 eight years.

CHART 8

Market Value, Actuarial Value and Valuation Value of Assets as of December 31, 2006 – 2013



—■ Market Value

— Actuarial Value

— Valuation Value



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 total experience gain was \$64.7 million, a gain of \$71.1 million from investments (after smoothing and relative to a return of 7.50% assumed in the valuation) and a loss of \$6.4 million from all other sources. The loss from all other sources was 0.3% of the actuarial accrued liability. 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 December 31, 2013

1.	Net gain from investments on valuation value of assets ⁽¹⁾	\$71,109,000
2.	Net loss from other experience ⁽²⁾	<u>-6,417,000</u>
3.	Net experience gain: $(1) + (2)$	\$64,692,000

⁽¹⁾ Details in Chart 10.



See Section 3, Exhibit H. This does not include contribution loss of about \$18 million due to the 18-month delay in implementing higher contribution rates.

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 SCERA's investment policy. For valuation purposes, the assumed rate of return on the valuation value of assets was 7.50%. The actual rate of return on a valuation basis for the 2013 plan year was 11.38%.

Since the actual return for the year was more than the assumed return, SCERA experienced an actuarial gain during the year ended December 31, 2013 with regard to its investments.

For this valuation, there is no difference between the return on the valuation value of assets and the return on the actuarial value of assets.

CHART 10
Investment Experience for Year Ended December 31, 2013 – Valuation Value and Actuarial Value of Assets

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

	Valuation Value	Actuarial Value	Market Value
1. Actual return	\$208,550,000	\$208,550,000	\$366,462,000
2. Average value of assets	1,832,539,000	1,832,539,000	1,880,619,000
3. Actual rate of return: $(1) \div (2)$	11.38%	11.38%	19.49%
4. Assumed rate of return	7.50%	7.50%	7.50%
5. Expected return: (2) x (4)	137,440,000	137,440,000	141,046,000
6. Actuarial gain/(loss): (1) – (5)	<u>\$71,109,000</u>	<u>\$71,109,000</u>	<u>\$225,416,000</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 eight years. Based on future expectations, we have maintained the assumed rate of return of 7.50% for this valuation.

CHART 11
Investment Return – Actuarial Value, Valuation Value and Market Value: 2006 – 2013 (Dollar amount in thousands)

	Valuatio Investmen		Actuarial Value Investment Return ⁽¹⁾			t Value nt Return ⁽¹⁾
Year Ended December 31	Amount	Percent	Amount	Percent	Amount	Percent
2006	\$102,056	8.02%	\$118,855	9.33%	\$193,809	14.64%
2007	111,564	8.15%	163,919	11.86%	126,599	8.40%
2008	70,012	4.75%	13,753	0.90%	-556,235	-34.33%
2009	32,771	2.13%	32,771	2.13%	224,056	21.28%
2010	54,093	3.27%	54,093	3.27%	207,173	15.23%
2011	19,508	1.04%	19,508	1.04%	1,179	0.07%
2012	33,652	1.82%	33,652	1.82%	239,065	14.16%
2013	208,550	11.38%	208,550	11.38%	366,462	19.49%
ve-Year Average Return		3.86%		3.86%		13.79%
ight-Year Average Return	1	5.01%		5.12%		5.69%

⁽¹⁾ Net of administrative and investment expenses.

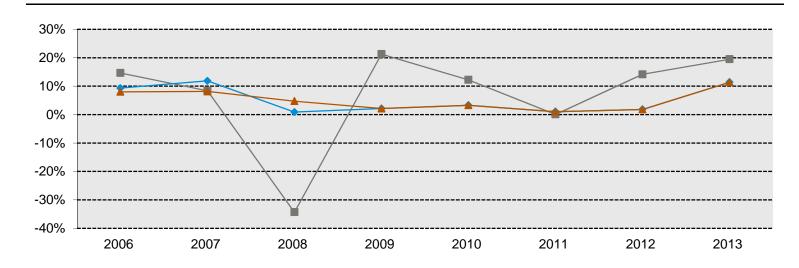


Subsection B described the actuarial asset valuation method that gradually takes into account fluctuations in the market value rate of return. The effect of this is to stabilize the actuarial rate of return, which contributes to leveling pension plan costs.

This chart illustrates how this leveling effect has actually worked over the last eight years.

CHART 12

Market, Actuarial and Valuation Rates of Return for Years Ended December 31, 2006 - 2013







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 may include:

- > the extent of 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 loss from this other experience for the year ended December 31, 2013 amounted to \$6.4 million, which was 0.3% of the actuarial accrued liability. See Exhibit H for a detailed development of the changes in the Unfunded Actuarial Accrued Liability.

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 determined as a level percentage of the member's career 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 Association) 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 rate of 4.00% (i.e., 3.25% inflation plus 0.75% across-the-board salary increase). The outstanding balance of the December 31, 2007 UAAL as well as any new UAAL established on each subsequent valuation after December 31, 2007 is amortized over separate 20-year declining periods. The UAAL established as a result of including as pensionable salary a cash allowance of \$3.45 per hour for General-County and Safety-County members only is amortized over a 20-year declining period with 14 years remaining as of December 31, 2013.

The recommended employer contributions are provided on Charts 13a and 13b.



Member Contributions

Normal Cost Plan A Members

Articles 6 and 6.8 of the 1937 Act define the methodology to be used in the calculation of member basic contribution rates for General Plan A members and Safety Plan A members, respectively. The basic contribution rate is determined so that the accumulation of a member's basic contributions made in a given year until a certain age will be sufficient to fund an annuity at that age that is equal to 1/100 of Final Average Compensation for General and Safety members. That age is 55 for General members and 50 for Safety members. It is assumed that contributions are made annually at the same rate, starting at entry age. Accumulation includes semi-annual crediting of interest at one-half of the assumed investment earning rate. The member contribution rates are provided in Appendix A.

Plan B Members

Pursuant to Section 7522.30(a) of the Government Code, CalPEPRA members are required to contribute at least 50% of the Normal Cost rate. We have assumed that exactly 50% of the Normal Cost would be paid by the new members. Also of note is that based on our recommendation, SCERA has decided to use the discretion made recently available by AB1380 to no longer round the member's contribution rate to the nearest ½% as previously required by the California Public Employees' Pension Reform Act of 2013 (CalPEPRA).

Contribution to the Unfunded Actuarial Accrued Liability (UAAL)

General County and Court members pay an additional contribution amount equal to 3.03% of payroll for a 20-year period from July 1, 2004 to June 30, 2024 while Safety-County members (excluding Valley of the Moon) pay an additional contribution amount equal to 3.00% of payroll effective February 1, 2005. These rates are subtracted from the employer's UAAL rates, after adjustment for refundability.



CHART 13a

Recommended Employer Contribution Rates (Dollar Amounts in Thousands)

	December 31, 201	3 Actuarial Valuation	December 31, 201	2 Actuarial Valuation
		Estimated Annual		Estimated Annual
General Plan A-County Members	Rate	Amount ⁽¹⁾	Rate	Amount ⁽¹⁾
Normal Cost	12.33%	\$27,282	12.36%	\$27,349
UAAL	7.06%	15,622	8.73%	<u>19,317</u>
Total Contribution	19.39%	\$42,904	21.09%	\$46,666
General Plan A-Court Members				
Normal Cost	12.99%	\$1,666	12.97%	\$1,663
UAAL	16.06%	<u>2,060</u>	16.45%	<u>2,110</u>
Total Contribution	29.05%	\$3,726	29.42%	\$3,773
General Plan A-Valley of the Moon Members				
Normal Cost	12.99%	\$34	12.97%	\$34
UAAL	5.79% ⁽²⁾	<u>15</u>	<u>5.65%</u>	<u>15</u>
Total Contribution	18.78%	\$49	18.62%	\$49
General Plan B-County Members				
Normal Cost	7.39%	\$1,736	7.79%	\$1,830
UAAL	<u>7.06%</u>	<u>1,659</u>	<u>8.73%</u>	<u>2,051</u>
Total Contribution	14.45%	\$3,395	16.52%	\$3,881
General Plan B-Court Members				
Normal Cost	7.39%	\$19	7.79%	\$20
UAAL	16.06%	<u>40</u>	16.45%	<u>41</u>
Total Contribution	23.45%	\$59	24.24%	\$61
General Plan B-Valley of the Moon Members				
Normal Cost	7.39%	\$0	7.79%	\$0
UAAL	5.79% ⁽²⁾	<u>0</u>	<u>5.65%</u>	<u>0</u>
Total Contribution	13.18%	\$0	13.44%	\$0

⁽¹⁾ Amounts are in thousands and are based on December 31, 2013 projected annual payroll (also in thousands) as shown on page 16.



⁽²⁾ There is an increase in the UAAL rate for Valley of the Moon because there is a reduction in the projected annual payroll between the 2012 and the 2013 valuations used to calculated the UAAL rates.

CHART 13a (continued)

Recommended Employer Contribution Rates (Dollar Amounts in Thousands)

	December 31, 201	3 Actuarial Valuation	December 31, 201	2 Actuarial Valuation
		Estimated Annual	· · · · · · · · · · · · · · · · · · ·	Estimated Annual
Safety Plan A-County Members	Rate	Amount ⁽¹⁾	Rate	Amount ⁽¹⁾
Normal Cost	18.12%	\$11,960	18.07%	\$11,927
UAAL	8.72%	<u>5,756</u>	<u>9.59%</u>	<u>6,330</u>
Total Contribution	26.84%	\$17,716	27.66%	\$18,257
Safety Plan A-Valley of the Moon Members				
Normal Cost	22.36%	\$824	22.32%	\$823
UAAL	12.43%	<u>458</u>	<u>13.23%</u>	<u>488</u>
Total Contribution	34.79%	\$1,282	35.55%	\$1,311
Safety Plan B-County Members				
Normal Cost	11.09%	\$226	11.27%	\$230
UAAL	8.72%	<u>178</u>	<u>9.59%</u>	<u>196</u>
Total Contribution	19.81%	\$404	20.86%	\$426
Safety Plan B-Valley of the Moon Members				
Normal Cost	10.87%	\$7	11.27%	\$7
UAAL	12.43%	<u>8</u>	<u>13.23%</u>	<u>8</u>
Total Contribution	23.30%	\$15	24.50%	\$15
All Categories Combined				
Normal Cost	13.26%	\$43,754	13.30%	\$43,883
UAAL	<u>7.82%</u>	<u>25,796</u>	<u>9.26%</u>	<u>30,556</u>
Total Contribution	21.08%	\$69,550	22.56%	\$74,439

⁽¹⁾ Amounts are in thousands and are based on December 31, 2013 projected annual payroll (also in thousands):

General Plan A-County	\$221,269
General Plan A-Court	12,824
General Plan A-Valley of the Moon	265
General Plan B-County	23,493
General Plan B-Court	251
General Plan B-Valley of the Moon	0
Safety Plan A-County	66,004
Safety Plan A-Valley of the Moon	3,687
Safety Plan B-County	2,041
Safety Plan B-Valley of the Moon	62
Total	\$329,896



CHART 13b

Breakdown of the Employers' Plus Employees' Normal Cost Contributions to Fund for Each Type of Benefit (% of Payroll)

	Elements of Normal Cost for Plan A Members				
Normal Cost	All		Safety-Valley	_	
	General	Safety-County	of the Moon	Overall	
Service Retirement	81%	61%	63%	76%	
Vested Termination and Ordinary Withdrawal	10%	7%	5%	9%	
Non Service and Service Connected Disability	8%	32%	31%	14%	
Non Service and Service Connected Death	1%	0%	1%	1%	
Total Employer Plus Employee Normal Cost	100%	100%	100%	100%	

	Eleme	ents of Normal Co	st for Plan B Me	mbers
Normal Cost	All		Safety-Valley	
	General	Safety-County	of the Moon	Overall
Service Retirement	77%	51%	54%	74%
Vested Termination and Ordinary Withdrawal	10%	10%	8%	10%
Non Service and Service Connected Disability	12%	38%	38%	15%
Non Service and Service Connected Death	1%	1%	0%	1%
Total Employer Plus Employee Normal Cost	100%	100%	100%	100%



The contribution rates as of December 31, 2013 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

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 from the prior valuation to the amount determined in this valuation.

CHART 14

Reconciliation of Recommended Contribution from December 31, 2012 to December 31, 2013 (Dollar Amounts in Thousands)

	Contribution Rate	Estimated Annual <u>Dollar Cost</u> ⁽¹⁾
Recommended Average Employer Contribution Rate as of December 31, 2012	22.56%	\$74,439
Effect of investment gain ⁽²⁾	-1.51%	-\$4,981
Effect of difference in actual versus expected individual salary increases	0.06%	\$198
Effect of decrease in UAAL rate from higher than expected increases in total payroll	-0.42%	-\$1,386
Effect of contribution losses due to 18-month delay in implementing higher contribution rates	0.37%	\$1,221
Effect of demographic changes	-0.04%	-\$132
Effect of other experience losses	0.06%	\$191
Subtotal	-1.48%	-\$4,889
Recommended Average Employer Contribution Rate as of December 31, 2013	21.08%	\$69,550

⁽¹⁾ Based on December 31, 2013 projected annual payroll of \$329,896.



⁽²⁾ Return on valuation assets was 11.38% and so was more than the 7.50% assumed in the valuation.

Reconciliation of Recommended Contribution Rate

The chart below details the changes in the aggregate member contribution rate from the prior valuation to the current year's valuation.

CHART 15
Reconciliation of Recommended Member Contribution from December 31, 2012 to December 31, 2013

	General Plan A-County Contribution Rate (1)	General Plan A-Court Contribution Rate (1)	General Plan A-Valley of the Moon Contribution <u>Rate</u>	Safety Plan A- County Contribution Rate (2)	Safety Plan A-Valley of the Moon Contribution Rate	
Recommended Average Member Contribution Rate as of December 31, 2012 ⁽³⁾	12.14%	12.30%	11.91%	12.03%	10.31%	
Effect of demographic changes	0.00%	0.00%	0.00%	0.00%	0.00%	
Recommended Average Member Contribution Rate as of December 31, 2013 ⁽⁴⁾	12.14%	12.30%	11.91%	12.03%	10.31%	
	General Plan B-County Contribution Rate (1)	General Plan B-Court Contribution Rate (1)	General Plan B-Valley of the Moon Contribution <u>Rate</u>	Safety Plan B- County Contribution Rate (2)	Safety Plan B-Valley of the Moon Contribution Rate	Total Contribution <u>Rate</u>
Recommended Average Member Contribution Rate as of December 31, 2012	10.28%	10.28%	7.25%	14.75%	11.75%	11.99%
Effect of demographic changes	0.14%	0.14%	0.14%	-0.67%	-0.88%	0.00%

10.42%

10.42%

7.39%

14.08%

10.87%

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

Recommended Average Member Contribution Rate as of December 31, 2013



11.99%

⁽¹⁾ Rates include an additional 3.03% of payroll.

⁽²⁾ Rates include an additional 3.00% of payroll.

⁽³⁾ The above rates are based on average entry age. The weighted average member contribution rates as of December 31, 2012 are 12.00%, 12.25%, 11.69% and 9.33% for General-County, other General (i.e., Court and Valley of the Moon), Safety-County and Safety-Valley of the Moon, respectively.

⁽⁴⁾ The above rates are based on average entry age. The weighted average member contribution rates as of December 31, 2013 are 11.96%, 12.22%, 11.66% and 9.25% for General-County, other General (i.e., Court and Valley of the Moon), Safety-County and Safety-Valley of the Moon, respectively.

E. INFORMATION REQUIRED BY GASB

Governmental Accounting Standards Board (GASB) reporting information provides standardized information for comparative purposes of governmental pension plans. This information allows a reader of the financial statements to compare the funding status of one governmental plan to another on relatively equal terms.

Critical information to GASB is the historical comparison of the GASB required contributions to the actual contributions. This comparison demonstrates whether a plan is being funded on an actuarially sound basis and in accordance with the GASB funding requirements. Chart 16 below presents a graphical representation of this information for the Plan.

The other critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the valuation value of assets to the actuarial accrued liabilities of the plan as calculated under GASB. High ratios indicate a well-funded plan with assets sufficient to pay most benefits. 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 details regarding the calculations of these values and other GASB numbers may be found in Section 4, Exhibits II, III, and IV.

These graphs show key GASB factors.

Note: Results for 2010 excludes \$289.3 million in proceeds from issuance of Pension Obligation Bonds.



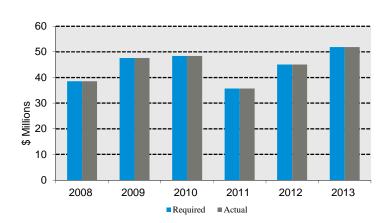
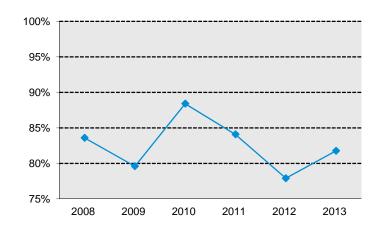


CHART 17 Funded Ratio





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 SCERA, the current AVR is about 6.7. This means that a 1% asset gain/(loss) (relative to the assumed investment return) translates to about 6.7% of one-year's payroll. Since SCERA amortizes actuarial gains and losses over a 20-year period, there would be a 0.5% 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 SCERA, the current LVR is about 7.5. This is about 12% higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long-term.

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

CHART 19
Volatility Ratios for Years Ended December 31, 2009 – 2013

Year Ended December 31	Asset Volatility Ratio	Liability Volatility Ratio
2009	3.9	6.1
2010	5.4	6.6
2011	5.5	7.2
2012	6.3	7.9
2013	6.7	7.5

SECTION 3: Supplemental Information for the Sonoma County Employees' Retirement Association

EXHIBIT A Table of Plan Coverage i. General Plan A

	Year Ended December 31		
Category	2013	2012	Change From Prior Year
Active members in valuation			
Number	2,772	2,928	-5.3%
Average age	47.7	47.1	N/A
Average service	10.7	9.9	N/A
Projected total compensation	\$234,357,634	\$235,101,703	-0.3%
Projected average compensation	\$84,545	\$80,294	5.3%
Account balances	\$303,163,702	\$280,963,356	7.9%
Total active vested members	2,156	2,140	0.7%
Vested terminated members ⁽¹⁾	736	712	3.4%
Retired members			
Number in pay status	2,907	2,821	3.0%
Average age	68.6	68.2	N/A
Average monthly benefit	\$2,668	\$2,627	1.6%
Disabled members			
Number in pay status	358	358	0.0%
Average age	64.5	64.0	N/A
Average monthly benefit	\$1,730	\$1,696	2.0%
Beneficiaries			
Number in pay status	406	378	7.4%
Average age	72.2	71.8	N/A
Average monthly benefit	\$1,106	\$1,083	2.1%

⁽¹⁾ Includes members who choose to leave their contributions on deposit even though they have less than five years of service.



SECTION 3: Supplemental Information for the Sonoma County Employees' Retirement Association

EXHIBIT A

Table of Plan Coverage
ii. General Plan B

	Year Ended December 31		
Category	2013	2012	- Change From Prior Year
Active members in valuation			
Number	353	0	N/A
Average age	40.3	N/A	N/A
Average service	0.5	N/A	N/A
Projected total compensation	\$23,743,230	N/A	N/A
Projected average compensation	\$67,261	N/A	N/A
Account balances	\$1,082,966	N/A	N/A
Total active vested members	1	N/A	N/A
Vested terminated members ⁽¹⁾	19	0	N/A
Retired members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A
Disabled members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A
Beneficiaries			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A

⁽¹⁾ Includes members who choose to leave their contributions on deposit even though they have less than five years of service.



SECTION 3: Supplemental Information for the Sonoma County Employees' Retirement Association

EXHIBIT A

Table of Plan Coverage
iii. Safety Plan A

	Year Ended December 31		
Category	2013	2012	– Change From Prior Year
Active members in valuation			
Number	681	692	-1.6%
Average age	42.5	41.9	N/A
Average service	11.8	11.3	N/A
Projected total compensation	\$69,690,439	\$67,662,324	3.0%
Projected average compensation	\$102,335	\$97,778	4.7%
Account balances	\$103,408,407	\$95,273,435	8.5%
Total active vested members	587	584	0.5%
Vested terminated members ⁽¹⁾	162	164	-1.2%
Retired members			
Number in pay status	389	373	4.3%
Average age	63.3	62.9	N/A
Average monthly benefit	\$4,436	\$4,410	0.6%
Disabled members			
Number in pay status	256	252	1.6%
Average age	58.8	58.0	N/A
Average monthly benefit	\$2,861	\$2,809	1.9%
Beneficiaries			
Number in pay status	78	76	2.6%
Average age	63.6	63.0	N/A
Average monthly benefit	\$1,867	\$1,843	1.3%

⁽¹⁾ Includes members who choose to leave their contributions on deposit even though they have less than five years of service.



SECTION 3: Supplemental Information for the Sonoma County Employees' Retirement Association

EXHIBIT A

Table of Plan Coverage
iv. Safety Plan B

	Year Ended D	Year Ended December 31	
Category	2013	2012	– Change From Prior Year
Active members in valuation			
Number	27	0	N/A
Average age	30.6	N/A	N/A
Average service	0.4	N/A	N/A
Projected total compensation	\$2,102,676	N/A	N/A
Projected average compensation	\$77,877	N/A	N/A
Account balances	\$105,002	N/A	N/A
Total active vested members	0	N/A	N/A
Vested terminated members ⁽¹⁾	1	0	N/A
Retired members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A
Disabled members			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A
Beneficiaries			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A

⁽¹⁾ Includes members who choose to leave their contributions on deposit even though they have less than five years of service.



EXHIBIT B

Members in Active Service and Projected Average Compensation as of December 31, 2013 By Age and Years of Service

i. General Plan A

					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	8	8								
	\$63,743	\$63,743								
25 - 29	132	106	26							
	66,853	67,063	\$65,998							
30 - 34	247	108	118	21						
	76,391	76,167	76,602	\$76,366						
35 - 39	286	95	120	62	8	1				
	80,677	76,779	83,975	80,492	\$78,807	\$81,783				
40 - 44	382	80	140	98	51	11	2			
	84,286	81,071	87,441	83,805	80,462	89,712	\$83,278			
45 - 49	453	73	131	110	72	49	18			
	85,693	83,642	83,353	82,561	93,165	94,349	76,717			
50 - 54	529	71	128	140	86	44	46	13	1	
	89,231	85,000	87,304	85,997	89,251	90,281	102,895	\$112,257	\$113,388	
55 - 59	425	60	95	114	66	47	29	13	1	
	90,282	93,013	85,564	84,364	98,751	89,325	95,365	114,542	72,321	
60 - 64	237	15	68	67	48	23	13	3		
	84,919	103,222	84,006	76,405	86,256	94,743	90,333	84,081		
65 - 69	65	8	20	21	10	3	1	1		. 1
	88,946	114,523	87,841	76,414	104,744	84,487	72,164	59,598		\$71,100
70 & over	8	1		4	1		2			
	73,063	97,825		59,139	97,103		76,510			
Total	2,772	625	846	637	342	178	111	30	2	. 1
	\$84,545	\$79,853	\$83,647	\$82,427	\$90,409	\$91,545	\$94,106	\$108,674	\$92,855	\$71,100



EXHIBIT B

Members in Active Service and Projected Average Compensation as of December 31, 2013 By Age and Years of Service

ii. General Plan B

					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	16	16							-	
	\$58,151	\$58,151							-	
25 - 29	61	61							-	
	60,994	60,994							-	
30 - 34	63	63							_	
	62,967	62,967							-	
35 - 39	50	50							-	
	70,787	70,787							_	
40 - 44	45	45							_	
	70,217	70,217							_	
45 - 49	37	37							_	
	66,467	66,467							_	
50 - 54	32	32							_	
	67,496	67,496							_	
55 - 59	35	35							_	
	76,238	76,238							_	
60 - 64	9	9							_	
	82,169	82,169							_	
65 - 69	4	3	1						_	
	85,560	98,099	\$47,942						_	
70 & over	1	1							_	
	56,882	56,882							_	
Total	353	352	1						_	
	\$67,261	\$67,316	\$47,942						_	



EXHIBIT B

Members in Active Service and Projected Average Compensation as of December 31, 2013 By Age and Years of Service

iii. Safety Plan A

Years of Service									
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & over
Under 25	4	4							
	\$87,560	\$87,560							
25 - 29	38	21	17						
	87,138	88,729	\$85,172						
30 - 34	107	32	65	10					
	91,648	86,541	92,835	\$100,278					
35 - 39	124	13	54	53	4				
	98,794	89,615	100,478	99,052	\$102,472				
40 - 44	145	8	34	48	42	13			
	104,476	102,099	99,978	104,289	105,386	\$115,454			
45 - 49	142	5	15	34	48	24	15	1	
	111,623	106,715	96,742	108,627	107,527	124,267	\$125,463	\$146,845	
50 - 54	69	5	11	13	9	16	14	1	
	107,539	95,959	97,033	102,444	101,340	115,095	121,340	\$88,938	
55 - 59	40	7	15	7	5	1	2	3	
	103,831	119,889	107,830	93,665	88,604	72,075	87,966	116,632	
60 - 64	10	1	5	2	1	1			
	120,575	134,417	120,676	137,291	82,565	110,808			
65 - 69	2		2						
	96,751		96,751						
70 & over									
Total	681	96	218	167	109	55	31	5	
	\$102,335	\$93,247	\$97,431	\$103,076	\$104,908	\$118,322	\$121,182	\$117,136	



EXHIBIT B

Members in Active Service and Projected Average Compensation as of December 31, 2013 By Age and Years of Service

iv. Safety Plan B

Years of Service									
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & over
Under 25	7	7							
	\$74,830	\$74,830							
25 - 29	11	11							
	74,789	74,789							
30 - 34	4	4							
	70,578	70,578							
35 - 39									
40 - 44	1	1							
	66,252	66,252							
45 - 49	1	1							
	62,427	62,427							
50 - 54	3	3							
	115,064	115,064							
55 - 59									
60 - 64									
65 - 69									
70 & over									
Total	27	27							
	\$77,877	\$77,877							



EXHIBIT C

Reconciliation of Member Data – December 31, 2012 to December 31, 2013

	Active Members	Vested Terminated Members	Disabled Pensioners	Retired Members	Beneficiaries	Total
Number as of December 31, 2012	3,620	876	610	3,194	454	8,754
New members	457	24 ⁽¹⁾	N/A	N/A	N/A	481
Terminations – with vested rights	-99	99	N/A	N/A	N/A	0
Contribution refunds	-34	-22	N/A	N/A	N/A	-56
Retirements	-114	-43	N/A	157	N/A	0
New disabilities	-9	-1	12	-2	N/A	0
Return to work	13	-13	0	0	N/A	0
Died with or without beneficiary	-1	-2	-8	-53	$30^{(2)}$	-34
Data adjustments	0	0	0	0	0	0
Number as of December 31, 2013	3,833	918	614	3,296	484	9,145

⁽¹⁾ Included for the first time in this year's valuation as they were hired and terminated in the 2013 calendar year.



⁽²⁾ This is the net increase in the number of beneficiaries after subtracting the number of beneficiaries who died during the year.

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

	Year Ended Dec	ember 31, 2013	Year Ended Dec	ember 31, 2012
Contribution income:				
Employer contributions	\$51,852,499		\$45,078,748	
Employee contributions	<u>35,491,526</u>		36,963,228	
Net contribution income		\$87,344,025		\$82,041,977
Investment income:				
Interest, dividends and other income	\$47,899,037		\$47,380,824	
Recognition of capital appreciation	180,720,935		5,148,858	
Less investment fees and administrative expenses	<u>-20,070,153</u>		<u>-18,877,212</u>	
Net investment income		208,549,819		33,652,470
Total income available for benefits		\$295,893,844		\$115,694,447
Less benefit payments:				
Service retirement and disability benefits	-\$134,310,807		-\$123,831,668	
Member refunds	-1,649,649		<u>-2,132,731</u>	
Net benefit payments		-\$135,960,456		-\$125,964,399
Change in assets held for future benefits		\$159,933,388		-\$10,269,952

Results may be off due to rounding.



EXHIBIT E
Summary Statement of Plan Assets

	Year Ended Dec	cember 31, 2013	Year Ended Dec	cember 31, 2012
Cash equivalents		\$115,517,949		\$46,717,860
Accounts receivable:				
Contributions, interest and dividends, and securities sold	\$16,047,575		\$29,845,100	
Other receivable	76,210		95,888	
Total accounts receivable		16,123,785		29,940,988
Investments:				
Domestic and international stocks	\$1,513,308,258		\$1,257,552,408	
Domestic bonds	266,937,075		369,645,769	
Real estate	345,374,098		305,868,801	
Securities lending collateral	96,959,809		67,528,455	
Miscellaneous	68,582,783		4,215,652	
Total investments at market value		2,291,162,023		2,004,811,085
Total assets		\$2,422,803,757		\$2,081,469,934
Less accounts payable		-\$200,031,019		-\$176,542,970
Net assets at market value		\$2,222,772,738		<u>\$1,904,926,964</u>
Net assets at actuarial value		<u>\$2,016,780,822</u>		<u>\$1,856,847,434</u>
Net assets at valuation value		\$2,016,780,822		\$1,856,847,434

Results may be off due to rounding.



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 are anticipated to 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)

As	sets	Basic	COLA	Total
1	Total valuation assets	\$1,966,610	\$50,171	\$2,016,781
2	Present value of future contributions by members ⁽¹⁾	\$262,401	\$0	\$262,401
3	Present value of future employer contributions for:			
	a Entry age normal cost	\$230,305	\$0	\$230,305
	b Unfunded actuarial accrued liability ⁽¹⁾	\$449,443	\$0	\$449,443
4	Total current and future assets	\$2,908,759	\$50,171	\$2,958,930
Lia	abilities			
5	Present value of benefits already granted	\$1,393,388	\$50,171	\$1,443,559
6	Present value of benefits to be granted	<u>\$1,515,371</u>	\$0	<u>\$1,515,371</u>
7	Total liabilities	\$2,908,759	\$50,171	\$2,958,930

⁽¹⁾ Before reflecting supplemental contributions payable by certain members for the UAAL.



EXHIBIT G
Summary of Reported Reserve Information as of December 31, 2013

Reserves Before True-Up After True-Up Transfer Amount Member reserves (1) General \$339,460,934 \$339,460,934 \$0 0 Safety 111,528,346 111,528,346 Employer reserves (1) General 388,119,535 23,182,014 411,301,549 Safety 174,190,494 179,961,971 5,771,477 Retired member reserve (1) 1,081,036,014 General 1,057,854,000 -23,182,014 Safety 341,305,477 335,534,000 -5,771,477 COLA 50,281,412 -110,412 50,171,000 Negative contingency reserve (1) -469,330,893 -469,030,979 299,914 Total valuation reserve (1) \$2,016,591,320 \$2,016,780,822 189,502 Undistributed reserve (2) 0 0 0 Interest fluctuation reserve (2) 0 0 0 Market stabilization reserve (2) 206,181,418 205,991,916 -189,502 \$2,222,772,738 \$2,222,772,738 Net market value 0

Results may be off due to rounding.



⁽¹⁾ Included in development of valuation value of assets.

⁽²⁾ Not included in development of valuation value of assets.

EXHIBIT H

Development of Unfunded Actuarial Accrued Liability for Year Ended December 31, 2013

		(Dollar Amounts in Thousands)			
1	Unfunded Actuarial Accrued Liability as of December 31, 2012	\$494,240			
2	Normal Cost	70,792			
3	Total employer and member contributions	-87,344			
4	Interest	36,447			
5	Expected Unfunded Actuarial Accrued Liability	\$514,135			
6	6 Actuarial (gains)/losses due to all changes:				
	Experience (gains)/losses				
	(a) Investment gain	-\$71,109			
	(b) Higher than expected salary increase	2,926			
	(c) Other experience losses ⁽¹⁾	<u>3,491</u>			
	(d) Total experience gains and losses	-64,692			
7	Unfunded Actuarial Accrued Liability as of December 31, 2013	\$449,443			

Note: Net loss from other non-investment experience of \$6.4 million (as shown on page 8) is equal to 6(b) + 6(c).



⁽¹⁾ This amount does not include a contribution loss of about \$18 million due to the 18-month delay in implementing higher contribution rates.

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 indexed for inflation. That limit is \$205,000 for 2013 and \$210,000 for 2014. 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.

Plan A benefits 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.

Plan A 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 are many 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.



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 gains and losses to avoid significant swings in the value of assets from one

year to the next.



EXHIBIT I		
Summary of Actuarial Valuation Results		
The valuation was made with respect to the following data supplied to us:		
1. Retired members as of the valuation date (including 484 beneficiaries in pay status)		4,394
2. Members inactive during year ended December 31, 2013 with vested rights*		918
3. Members active during the year ended December 31, 2013		3,833
The actuarial factors as of the valuation date are as follows (amounts in 000s):		
1. Normal cost		\$72,785
2. Present value of future benefits		2,958,930
3. Present value of future normal costs		492,706
4. Actuarial accrued liability		2,466,224
Retired members and beneficiaries	\$1,443,559	
Inactive members with vested rights	67,738	
Active members	954,927	
5. Valuation value of assets** (\$2,222,773 at market value as reported by Retirement Associati	ion)	2,016,781
6. Unfunded actuarial accrued liability		\$449,443

^{*} Includes members who choose to leave their contributions on deposit even though they may have less than five years of service.



^{**} Excludes non-valuation reserves.

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	\$72,785	22.06%
2.	Expected employee normal cost contributions (excluding expected employee supplemental contributions)	<u>-29,031</u>	<u>-8.80%</u>
3.	Employer normal cost: $(1) + (2)$	\$43,754	13.26%
4.	Amortization of unfunded actuarial accrued liability (less expected employee supplemental contributions to reduce the employer's UAAL)	<u>25,796</u>	<u>7.82%</u>
5.	Total recommended average employer contribution: (3) + (4)	\$69,550	21.08%
6.	Projected compensation	\$329,896	



EXHIBIT II

Supplementary Information Required by GASB – Schedule of Employer Contributions (Dollar Amounts in Thousands)

Plan Year Ended December 31	Annual Required Contributions	Actual Contributions	Percentage Contributed
2008	\$38,553 ⁽¹⁾	\$38,553	100.0% ⁽¹⁾
2009	47,577 ⁽¹⁾	47,577	100.0% (1)
2010	$48,426^{(2)}$	48,426 ⁽³⁾	100.0% ⁽²⁾
2011	35,711 ⁽⁴⁾	35,711	100.0% (4)
2012	$45,079^{(2)}$	45,079	100.0% ⁽²⁾
2013	51,852 ⁽⁵⁾	51,852	100.0% ⁽⁵⁾

⁽¹⁾ Determined using an amortization period of about 29 years (an amortization period of up to 30 years is allowed by GASB).



Determined using an amortization period of about 26 years (an amortization period of up to 30 years is allowed by GASB).

⁽³⁾ Excludes \$289.3 million in proceeds from issuance of Pension Obligation Bonds.

⁽⁴⁾ Determined using an amortization period of about 23 years (an amortization period of up to 30 years is allowed by GASB).

⁽⁵⁾ Determined using an amortization period of about 27 years (an amortization period of up to 30 years is allowed by GASB).

EXHIBIT III

Supplementary Information Required by GASB – Schedule of Funding Progress (Dollar Amounts in Thousands)

Actuarial Valuation Date	Valuation Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) - (a)] / (c)
12/31/2008	\$1,540,461	\$1,842,404	\$301,943	83.6%	\$334,391	90.3%
12/31/2009	1,564,970	1,967,058	402,088	79.6%	322,484	124.7%
12/31/2010	1,890,874	2,139,460	248,586	88.4%	323,601	76.8%
12/31/2011	1,867,117	2,220,520	353,403	84.1%	308,644	114.5%
12/31/2012	1,856,847	2,351,087	494,240	79.0%	302,764	163.2%
12/31/2013	2,016,781	2,466,224	449,443	81.8%	329,896	136.2%



EXHIBIT IV

Supplementary Information Required by GASB

Valuation date	December 31, 2013
Actuarial cost method	Entry Age Cost Method
Amortization method	Level percent of payroll for total unfunded liability
Remaining amortization period 20 years (declining) for outstanding balance of the December 31, 2007 UAAL and a established on each subsequent valuation plus 20 years (declining) with 14 years report of December 31, 2013 for UAAL established as a result of including as pensionable cash allowance.	
Asset valuation method	Market value of assets less unrecognized returns in each of the last five years. Unrecognized return is equal to the difference between the actual market return and the expected return on valuation value of assets and is recognized over a five-year period. The Valuation Value of Assets is the Actuarial Value of Assets reduced by the value of the non-valuation reserves and designations.
Actuarial assumptions:	
Investment rate of return	7.50%
Inflation rate	3.25%
Across the board salary increase	0.75%
Projected salary increases*	General: 4.50% to 10.00% and Safety: 4.50% to 12.50%
Cost of living adjustments	0.00% of retirement income
Plan membership:	
Retired members and beneficiaries receiving benefits	4,394
Terminated members entitled to, but not yet receiving benefits	918
Active members	<u>3,833</u>
Total	9,145

^{*} Includes inflation at 3.25%, across the board increase of 0.75%, plus merit and longevity increases. See Exhibit V for these increases.



EXHIBIT V

Actuarial Assumptions and Actuarial Cost Method

Mortality Rates:

Healthy Retirement: For General Members – RP-2000 Combined Healthy Mortality Table projected with

Scale AA to 2015 set back two years.

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

Scale AA to 2015.

Disabled Retirement: For General Members – RP-2000 Disabled Retiree Mortality Table projected with Scale

AA to 2015 set back four years.

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

AA to 2015 set forward six years.

The mortality tables shown above were determined so as to reasonably reflect future mortality improvement, based on a review of the mortality experience in the January 1,

2009 - December 31, 2011 Actuarial Experience Study.

Employee Contribution Rates: For General Members – RP-2000 Combined Healthy Mortality Table projected with

Scale AA to 2015 set back two years weighted 30% male and 70% female.

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

Scale AA to 2015 weighted 75% male and 25% female.



Termination Rates Before Retirement:

Mortality Rates:

		Rate	(%)		
	Gei	neral	Sa	fety	
Age	Male	Female	Male	Female	_
30	0.02	0.01	0.02	0.01	
35	0.03	0.02	0.04	0.02	
40	0.04	0.02	0.05	0.03	
45	0.06	0.04	0.06	0.04	
50	0.07	0.05	0.08	0.06	
55	0.11	0.09	0.14	0.12	
60	0.21	0.18	0.26	0.23	

All pre-retirement deaths are assumed to be non-service connected deaths.



Disability Rates:

Rate (%)

		` /
Age	General ⁽¹⁾	Safety ⁽²⁾
20	0.05	0.06
25	0.05	0.16
30	0.06	0.38
35	0.12	0.95
40	0.24	1.40
45	0.33	1.80
50	0.41	2.30
55	0.51	2.80
60	0.70	0.00

^{(1) 50%} of General disabilities are assumed to be service connected disabilities. The other 50% are assumed to be non-service connected disabilities.

^{90%} of Safety disabilities are assumed to be service connected disabilities. The other 10% are assumed to be non-service connected disabilities.

Withdrawal Rates:

Rate (%) Withdrawal (< 5 Years of Service) Years of Service General Safety 7.0 5.0 0 5.0 3.0 4.0 2.0 2 2.0 3.0 3 2.5 2.0 Rate (%) XX7:41. .1..

	Withdrawal (5+	Years of Service)
Age	General	Safety
20	2.50	2.00
25	2.50	2.00
30	2.20	1.58
35	1.28	0.88
40	0.68	0.42
45	0.48	0.18
50	0.34	0.00
55	0.24	0.00
60	0.14	0.00

No withdrawal is assumed after a member is assumed to retire.



Vested Termination Rates:

Rate (%)

	Vested Termination	(<5 Years of Service)
Years of Service	General	Safety
0	6.0	4.0
1	5.0	4.0
2	4.0	4.0
3	3.0	4.0
4	3.0	4.0

Rate (%)

	Vested Termination	(5+ Years of Service)
Age	General	Safety
20	3.00	2.00
25	3.00	2.00
30	3.00	2.00
35	3.00	1.40
40	2.40	0.94
45	1.85	0.84
50	1.60	0.00
55	1.05	0.00
60	0.75	0.00

No vested termination is assumed after a member is assumed to retire.



SECTION 4: Reporting Information for the Sonoma County Employees' Retirement Association

Retirement Rates:

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Rate	10/2	١
rate	· /0	,

	<u>.</u>	General	_		Safety	
Age	Plan A Before 30 Years	Plan A 30 or More Years	Plan B	Plan A Before 30 Years	Plan A 30 or More Years	Plan B
50	7.0	10.0	0.0	10.0	10.0	4.0
51	7.0	10.0	0.0	12.0	12.0	5.0
52	7.0	12.0	4.0	18.0	18.0	6.0
53	8.0	14.0	1.5	19.0	25.0	6.0
54	9.0	15.0	2.5	20.0	50.0	8.0
55	9.0	20.0	2.5	25.0	100.0	20.0
56	10.0	22.0	4.5	25.0	100.0	15.0
57	13.0	22.0	5.5	25.0	100.0	15.0
58	15.0	25.0	6.5	25.0	100.0	20.0
59	17.0	35.0	7.5	25.0	100.0	20.0
60	21.0	45.0	8.5	100.0	100.0	100.0
61	25.0	45.0	9.5	100.0	100.0	100.0
62	40.0	45.0	14.5	100.0	100.0	100.0
63	35.0	45.0	16.5	100.0	100.0	100.0
64	35.0	45.0	19.0	100.0	100.0	100.0
65	35.0	45.0	24.0	100.0	100.0	100.0
66	35.0	45.0	20.0	100.0	100.0	100.0
67	40.0	50.0	20.0	100.0	100.0	100.0
68	50.0	50.0	20.0	100.0	100.0	100.0
69	80.0	80.0	20.0	100.0	100.0	100.0
70	100.0	100.0	100.0	100.0	100.0	100.0



Retirement Age and Benefit for Deferred Vested Members: For deferred vested members, we make the following retirement assumption:

General: Age 58

Safety: Age 53

We assumed that 30% of General and 45% of Safety deferred vested members will continue to work for a reciprocal employer. For reciprocals, we assume

4.00% compensation increases per annum.

Future Benefit Accruals:

1.0 year of service per year.

Unknown Data for

Members:

Same as those exhibited by members with similar known characteristics. If not

specified, members are assumed to be male.

Definition of Active

Members:

First day of pay period following employment.

Percent Married: 75% of male members and 55% of female members are assumed to be married at

retirement or pre-retirement death.

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

Net Investment Return: 7.50%; net of administration and investment expenses.

Employee Contribution

Crediting Rate:

½ of the net investment return credited semi-annually.



Cost-of-Living Adjustment for Retirees:

Not applicable.

Salary Scale:

Annual Rate of Compensation Increase

Inflation: 3.25% per year; plus "Across the Board" salary increases of 0.75% per year; plus Merit and Promotion increases as follows:

Years of Service	General	Safety
0	6.00%	8.50%
1	5.00	4.75
2	3.75	3.75
3	2.50	2.75
4	1.50	1.75
5+	0.50	0.50

Cashouts for Plan A Court and VOM members:

The following assumptions for a one-time compensation increase at retirement from vacation, sick leave and holiday cashouts are used:

General members: 4% Safety members: 6%

Note: For the purposes of calculating member contribution rates, these assumptions are adjusted by a factor of 91% since about 9% of the full costs included above have been determined by SCERA to be from the cashout of sick leave and should be excluded from the cashout cost paid by the active members.



Actuarial Value of Assets: Market value of assets less unrecognized returns in each of the last five years.

Unrecognized return is equal to the difference between the actual market return and the

expected return on valuation value and are recognized over a five-year period.

Valuation Value of Assets: The Actuarial Value of Assets reduced by the value of the non-valuation reserves.

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

Actuarial Accrued Liability is calculated on an individual basis and is based on costs

allocated as a level percentage of compensation.

Changes in Actuarial Assumptions

and Methods: There were no changes in actuarial assumptions or methods since the prior valuation.



EXHIBIT VI

Summary of Plan Provisions

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

Courses Detinement Elizibility	. ,		
Service:	Years of service (Yrs).		
Plan B	Highest consecutive three years of pensionable compensation (§7522.10(c), §7522.32 and §7522.34)(FAC3).		
Plan A	Highest consecutive one year of compensation earnable (§31462.1)(FAC1).		
Final Compensation for Benefit Determination:			
Plan B	All General and Safety members with membership dates on or after January 1, 2013.		
Plan A	All General and Safety members with membership dates before January 1, 2013.		
Membership Eligibility:	All permanent employees of the County of Sonoma or contracting district, scheduled to work at least 50% of a full-time position are eligible to become a member of the Retirement Association.		

Service Retirement Eligibility:

General

Plan A Age 50 with 10 years of service credit, or age 70 regardless of service credit, or after

30 years of service credit, regardless of age (§31672).

Plan B Age 52 with 5 years of service credit (§7522.20(a)).

Safety

Plan A Age 50 with 10 years of service credit, or age 70 regardless of service credit, or after

30 years of service credit, regardless of age (§31672).

Plan B Age 50 with 5 years of service credit (§7522.25(d)).



SECTION 4: Reporting Information for the Sonoma County Employees' Retirement Association

Benefit Formula:

	Retirement Age	Benefit Formula			
General Plan A – County ($\S 31676.17$)	50	(2.00%xFAC1 – 1/3x2.00%x\$350 x 12)xYrs			
	55	(2.50%xFAC1 – 1/3x2.50%x\$350 x 12)xYrs			
	60 or later	(3.00%xFAC1 – 1/3x3.00%x\$350 x 12)xYrs			
General Plan A – Court (§31676.17)	50	(2.00%xFAC1 – 1/3x2.00%x\$350 x 12)xYrs			
	55	(2.50%xFAC1 – 1/3x2.50%x\$350 x 12)xYrs			
	60 or later	(3.00%xFAC1 – 1/3x3.00%x\$350 x 12)xYrs			
General Plan A – Valley of the Moon	50	2.00%xFAC1xYrs			
(§31676.17)	55	2.50%xFAC1xYrs			
	60 or later	3.00%xFAC1xYrs			
General Plan B (§7522.20(a))	52	1.00%xFAC3xYrs			
	55	1.30%xFAC3xYrs			
	60	1.80%xFAC3xYrs			
	62	2.00%xFAC3xYrs			
	65	2.30%xFAC3xYrs			
	67 or later	2.50%xFAC3xYrs			



	Retirement Age	Benefit Formula		
Safety Plan A – County (§31664.1)	50	(3.00% x FAC1 - 1/3x3.00% x \$350x12)x Yrs		
	55	(3.00% xFAC1 - 1/3x3.00% x\$350x12)xYrs		
	60 or later	(3.00% xFAC1 - 1/3x3.00% x\$350x12)xYrs		
Safety Plan A – Valley of the Moon	50	3.00%xFAC1xYrs		
(§31664.1)	55	3.00%xFAC1xYrs		
	60 or later	3.00%xFAC1xYrs		
Safety Plan B (§7522.25(d))	50	2.00%xFAC3xYrs		
	55	2.50%xFAC3xYrs		
	57 or later	2.70%xFAC3xYrs		

Maximum Benefit:

Plan A 100% of Final Average Compensation (§31676.17, §31664.1)

Plan B None



Non Service Connected Disability:

General Plan A Members

Eligibility Five years of service (§31720).

Benefit Formula 1.8% of FAC per year of service. If the benefit does not exceed one-third of Final

Average Compensation, the service is projected to 62, and the total benefit cannot be

more than one-third of Final Average Compensation (§31727.1). The Service

Retirement benefit is payable, if greater.

Safety Plan A Members

Eligibility Five years of service (§31720).

Benefit Formula 1.8% of FAC per year of service. If the benefit does not exceed one-third of Final

Average Compensation, the service is projected to 55, and the total benefit cannot be

more than one-third of Final Average Compensation (§31727.2). The Service

Retirement benefit is payable, if greater.

All Plan B Members

Eligibility Five years of service (§31720).

Benefit Formula 1.5% of FAC per year of service. If the benefit does not exceed one-third of Final

Average Compensation, the service is projected to 65, and the total benefit cannot be

more than one-third of Final Average Compensation (§31727). The Service

Retirement benefit is payable, if greater.

Service Connected Disability:

All Members

Eligibility No age or service requirements (§31720).

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

larger (§31727.4).



Pre-Retirement Death:

All Members

Eligibility None.

Basic lump sum benefit Refund of employee contributions with interest, plus one month's compensation for

each year of service, to a maximum of six months' compensation (§37181).

Service Connected Death 50% of Final Compensation or 100% of Service Retirement benefit, if greater,

payable to spouse or registered domestic partner (§31787).

OR

Vested Members

Eligibility Five years of service.

Basic benefit 60% of the greater of Service or Non Service Connected Disability Retirement benefit

payable to surviving eligible spouse or registered domestic partner (§31765.1,

§31781.1), in lieu of the basic lump sum benefit above.

Service Connected Death 50% of Final Compensation or 100% of Service Retirement benefit, if greater,

payable to spouse or registered domestic partner (§31787).

Death After Retirement:

All Members

Service or Non Service Connected

Disability Retirement 60% of member's unmodified allowance continued to eligible spouse or registered

domestic partner (§31760.1).

Service Connected Disability

Retirement 100% of member's unmodified allowance continued to eligible spouse or

registered domestic partner (§31786).



Withdrawal Benefits:	
Less than Five Years of Service	Refund of accumulated employee contributions with interest, or earned benefit at age 70 (§31628). A member may also elect to leave contributions on deposit in the retirement fund (§31629.5).
Five or More Years Service	If contributions left on deposit, eligible for retirement benefits at any time after meeting eligibility criteria to retire (§31700).
Employer Contributions:	The amortization period for the outstanding balance of the December 31, 2007 Unfunded Actuarial Accrued Liability as well as for UAAL established on each subsequent valuation as a result of actuarial gains or losses and changes in actuarial assumptions is amortized over a declining 20-year period. The amortization period for UAAL established as a result of including as pensionable salary a cash allowance is amortized over a declining 20-year period with 14 years remaining as of December 31, 2013.
Member Contributions:	Please refer to Appendix A for the specific rates.
General Plan A	Provide for an average annuity at age 55 equal to 1/100 of FAC. (§31621.8)
General Plan B	50% of the total Normal Cost rate.
Safety Plan A	Provide for an average annuity at age 50 equal to 1/100 of FAC. (§31639.25)
Safety Plan B	50% of the total Normal Cost rate.
Additional Contributions	
General – County and Courts	An additional amount equal to 3.03% of payroll will be paid from July 1, 2004 to June 30, 2024.
Safety – County	An additional amount equal to 3.00% of payroll will be paid effective February 1, 2005.



Other Information: Safety Plan A members with 30 or more years of service are exempt from paying

member contributions. The same applies for General Plan A members hired on or

before March 7, 1973.

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

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



Appendix A

Member Contribution Rates

Comparison of Total Member Rate⁽¹⁾ from December 31, 2013 (New) and December 31, 2012 (Current) Valuations

	General Plan	$A - County^{(2)}$			Safety Plan	A – County ⁽⁴⁾	
Entry Age	Current	New	Change	Entry Age	Current	New	Change
25	7.49%	7.49%	0.00%	25	8.32%	8.32%	0.00%
35	8.81%	8.81%	0.00%	35	9.80%	9.80%	0.00%
45	10.42%	10.42%	0.00%	45	11.80%	11.80%	0.00%
Gen	eral Plan A –	Court and VC	$\mathbf{M}^{(2)}$		Safety Pla	n A – VOM	
Entry Age	Current	New	Change	Entry Age	Current	New	Change
25	7.75%	7.75%	0.00%	25	8.76%	8.76%	0.00%
35	9.12%	9.12%	0.00%	35	10.31%	10.31%	0.00%
45	10.77%	10.77%	0.00%	45	12.31%	12.31%	0.00%
General Plan B ⁽²⁾			Safety Plan B – County ⁽⁴⁾				
Entry Age	Current	New	Change	Entry Age	Current	New	Change
Any ⁽³⁾	7.25%	7.39%	0.14%	Any ⁽³⁾	11.75%	11.08%	(0.67%)
				Safety Plan B – VOM			
				Entry Age	Current	New	Change
				Any ⁽³⁾	11.75%	10.87%	(0.88%)

⁽¹⁾ For Plan A integrated members, contributions for the first \$350 of monthly payroll are based on 2/3 of the above rates.

⁽⁴⁾ Rates exclude an additional 3.00% of payroll payable effective February 1, 2005 for County members only.



⁽²⁾ Rates exclude an additional 3.03% of payroll payable from July 1, 2004 to June 30, 2024 for County and Court members only.

⁽³⁾ Plan B member rates are independent of entry age.

Appendix A

Member Contribution Rates (continued)

General Members' Contribution Rates from the December 31, 2013 Actuarial Valuation (As a Percentage of Monthly Payroll)

Plan A – County Plan A – Court and VOM

Plan A – County			Plan A – Court and VOM			
Entry Age	First \$350*	Over \$350	Entry Age	First \$350*	Over \$350	
16	4.30%	6.44%	16	4.45%	6.67%	
17	4.37%	6.55%	17	4.53%	6.79%	
18	4.44%	6.66%	18	4.60%	6.90%	
19	4.52%	6.78%	19	4.68%	7.02%	
20	4.59%	6.89%	20	4.76%	7.14%	
21	4.67%	7.01%	21	4.84%	7.26%	
22	4.75%	7.12%	22	4.92%	7.38%	
23	4.83%	7.24%	23	5.00%	7.50%	
24	4.91%	7.36%	24	5.08%	7.63%	
25	4.99%	7.49%	25	5.17%	7.75%	
26	5.07%	7.61%	26	5.25%	7.88%	
27	5.16%	7.74%	27	5.34%	8.01%	
28	5.24%	7.86%	28	5.43%	8.14%	
29	5.33%	7.99%	29	5.52%	8.28%	
30	5.42%	8.13%	30	5.61%	8.41%	
31	5.51%	8.26%	31	5.70%	8.55%	
32	5.60%	8.39%	32	5.79%	8.69%	
33	5.69%	8.53%	33	5.89%	8.83%	
34	5.78%	8.67%	34	5.98%	8.98%	
35	5.88%	8.81%	35	6.08%	9.12%	
36	5.97%	8.96%	36	6.18%	9.27%	
37	6.07%	9.11%	37	6.28%	9.42%	
38	6.17%	9.26%	38	6.38%	9.58%	
39	6.27%	9.41%	39	6.49%	9.73%	
40	6.38%	9.57%	40	6.60%	9.90%	
41	6.49%	9.73%	41	6.71%	10.06%	



Appendix A

Member Contribution Rates (continued)

General Members' Contribution Rates from the December 31, 2013 Actuarial Valuation (As a Percentage of Monthly Payroll)

Plan A – County Plan A – Court and VOM First \$350* Over \$350 Over \$350 **Entry Age Entry Age** First \$350* 42 42 6.60% 9.89% 6.82% 10.23% 43 43 6.71% 10.06% 6.93% 10.40% 44 44 10.58% 6.83% 7.05% 10.24% 45 6.95% 45 7.18% 10.42% 10.77% 46 7.08% 46 7.31% 10.62% 10.96% 47 10.83% 47 7.22% 7.45% 11.17% 48 7.37% 48 11.05% 7.60% 11.40% 49 7.54% 49 11.30% 7.76% 11.64% 50 7.66% 11.49% 50 7.88% 11.82% 51 7.74% 51 7.95% 11.61% 11.92% 52 52 7.76% 11.64% 7.94% 11.91% 53 7.72% 11.58% 53 7.85% 11.78% 54 & Over 54 & Over 7.63% 11.44% 7.63% 11.44% Interest: 7.50% COLA: 0.00% Mortality: RP-2000 Combined Healthy Mortality Table projected to 2015 with Scale AA setback two years weighted 30% male and 70% female Salary Increase: Inflation (3.25%) + Across the board increase (0.75%) + Merit (see Exhibit V)

The above rates exclude an additional 3.03% of payroll payable from July 1, 2004 to June 30, 2024 for

County and Court members only.

Note:



^{*} For integrated members only.

Appendix A

Member Contribution Rates (continued)

General Members' Contribution Rates from the December 31, 2013 Actuarial Valuation (As a Percentage of Monthly Payroll)

Plan B All Eligible Pay* All Members 7.39%

Interest: 7.50% COLA: 0.00%

Mortality: RP-2000 Combined Healthy Mortality Table projected to 2015 with Scale AA setback two years weighted

30% male and 70% female

Salary Increase: Inflation (3.25%) + Across the board increase (0.75%) + Merit (see Exhibit V)

Note: The above rates exclude an additional 3.03% of payroll payable from July 1, 2004 to June 30, 2024 for

County and Court members only.

* 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. (For an employer that is not enrolled in Social Security, the maximum amount is 120% of \$115,064 or \$138,077). (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)

Safety Members' Contribution Rates from the December 31, 2013 Actuarial Valuation (As a Percentage of Monthly Payroll)

Plan A - County Plan A - VOM **Entry Age** First \$350* Over \$350 First \$350* Over \$350 **Entry Age** 16 4.78% 7.17% 16 5.04% 7.56% 17 17 4.86% 7.29% 5.12% 7.68% 18 18 4.94% 7.41% 5.21% 7.81% 19 5.03% 7.54% 19 5.29% 7.94% 20 20 5.11% 5.38% 8.07% 7.66% 21 5.19% 7.79% 21 5.47% 8.21% 22 5.28% 7.92% 22 5.56% 8.34% 23 5.37% 8.05% 23 8.48% 5.65% 24 5.46% 8.18% 24 5.75% 8.62% 25 25 5.55% 8.32% 5.84% 8.76% 26 26 5.64% 8.46% 5.94% 8.90% 27 5.73% 8.60% 27 6.03% 9.05% 28 28 5.83% 8.74% 6.13% 9.20% 29 5.92% 8.88% 29 6.23% 9.35% 30 30 6.02% 9.03% 6.33% 9.50% 31 31 6.12% 9.18% 6.44% 9.66% 32 32 6.22% 9.33% 6.54% 9.81% 33 33 6.32% 9.48% 9.98% 6.65% 34 34 6.43% 9.64% 6.76% 10.14% 35 6.54% 9.80% 35 6.87% 10.31% 36 36 6.65% 9.97% 6.99% 10.48% 37 6.76% 37 10.14% 7.10% 10.66% 38 6.88% 10.32% 38 7.23% 10.84% 39 39 7.00% 10.50% 7.35% 11.03% 40 40 7.13% 10.70% 7.48% 11.22% 41 7.27% 10.90% 41 7.62% 11.43%



Appendix A

Member Contribution Rates (continued)

Safety Members' Contribution Rates from the December 31, 2013 Actuarial Valuation (As a Percentage of Monthly Payroll)

Plan A – County Plan A – VOM First \$350* Over \$350 First \$350* Over \$350 **Entry Age Entry Age** 42 42 7.41% 11.12% 7.77% 11.65% 43 43 7.57% 11.36% 7.92% 11.89% 44 44 7.75% 8.10% 12.15% 11.63% 45 7.87% 11.80% 45 8.21% 12.31% 46 7.94% 46 11.91% 8.26% 12.39% 47 7.97% 47 11.96% 8.26% 12.38% 48 7.97% 11.96% 48 8.18% 12.27% 49 & Over 7.80% 11.70% 49 & Over 7.80% 11.70% 7.50% Interest: COLA: 0.00% RP-2000 Combined Healthy Mortality Table projected to 2015 with Scale AA weighted 75% male and Mortality: 25% female Salary Increase: Inflation (3.25%) + Across the board increase (0.75%) + Merit (see Exhibit V) Note: The above rates exclude an additional 3.00% of payroll payable effective February 1, 2005 for County members only.



^{*} For integrated members only.

Appendix A

Member Contribution Rates (continued)

Safety Members' Contribution Rates from the December 31, 2013 Actuarial Valuation (As a Percentage of Monthly Payroll)

Plan B	County	Plan B – VOM			
-	All Eligible Pay*		All Eligible Pay*		
All Members	11.08%	All Members	10.87%		

Interest: 7.50% COLA: 0.00%

Mortality: RP-2000 Combined Healthy Mortality Table projected to 2015 with Scale AA weighted 75% male and

25% female

Salary Increase: Inflation (3.25%) + Across the board increase (0.75%) + Merit (see Exhibit V)

Note: The above rates exclude an additional 3.00% of payroll payable effective February 1, 2005 for County

members only.



^{*} 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. (For an employer that is not enrolled in Social Security, the maximum amount is 120% of \$115,064 or \$138,077). (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 B

Schedule of Additional (non-SCERA) Employer Contributions

As requested by SCERA, we have provided the following additional employer contributions made by the employer to other outside parties. These rates are provided by the employer and we have not audited them against any other sources.

The County's total contributions toward retirement benefits include the contributions shown in this report which are paid to SCERA, along with payments to holders of Pension Obligation Bonds issued by the County in 1993, 2003 and 2010. The 1993 Pension Obligation Bond was paid-off in 2012/2013; therefore, the rates for 2013/2014 and later include only the payments for the 2003 and 2010 Pension Obligation Bonds. According to information supplied by the County, these contributions are projected to be made at the following percentage of covered payroll:

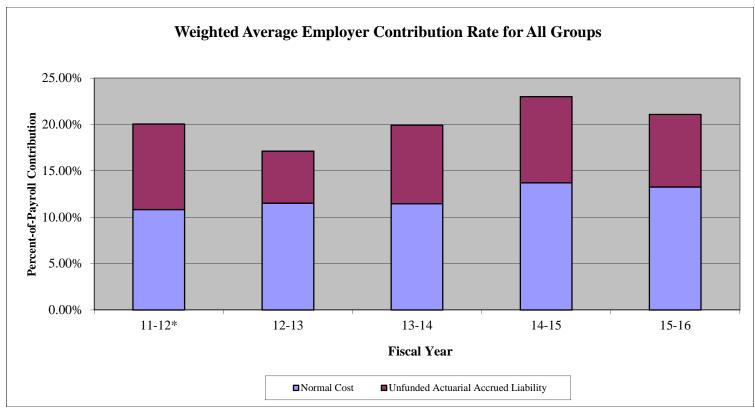
Pension Obligation Bonds

Fiscal Year	Rate as % of Payroll
2007/2008	8.31%
2008/2009	8.11%
2009/2010	8.15%
2010/2011	15.55%
2011/2012	General – 15.43%, Safety – 16.83%
2012/2013	General – 15.95%, Safety – 17.80%
2013/2014	General – 13.69%, Safety – 13.88%
2014/2015	General – 13.83%, Safety – 14.01%
2015/2016	Not Yet Available



Appendix C Average Employer Contribution Rates

The following chart displays the historical average employer contribution rates, broken down by normal cost and unfunded actuarial accrued liability. These rates have not been adjusted for any contribution rate phase-in (if applicable). The unfunded actuarial accrued liability rate for 2012-2013 reflects the Pension Obligation Bonds issued by the County around September 2010.

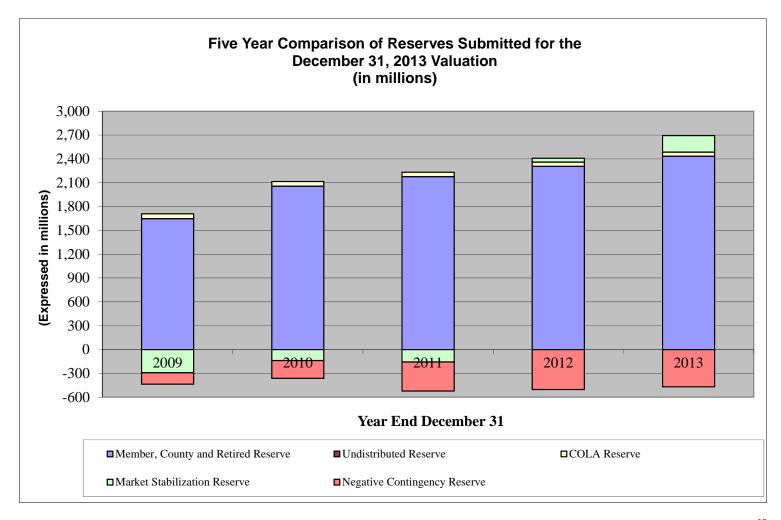


^{*} Before reflecting Pension Obligation Bonds issued in 2010. Employer contribution rate after reflecting Pension Obligation Bonds is 13.74%.



Appendix D Reserves

The following chart displays the 5-year historical reserves balance after "true-up".



Appendix E
Amortization Schedule for UAAL (Dollar Amounts in Thousands)

	Date Established	Source	Initial Amount	Outstanding Balance	Years Remaining	Annual Payment ⁽³⁾
General	December 31, 2007	Restart amortization - County	\$123,396	\$34,499(2)	15	\$2,985
	December 31, 2007	Restart amortization - Court	8,599	8,457	15	732
	December 31, 2007 ⁽¹⁾	Cash Allowance - County	55,982	15,651 ⁽²⁾	14	1,429
	December 31, 2008	Actuarial loss - County	44,591	$12,606^{(2)}$	15	1,091
	December 31, 2008	Actuarial loss - Court	3,107	3,090	15	267
	December 31, 2009 ⁽¹⁾	Early Retirement Option - County	1,448	412(2)	16	34
	December 31, 2009	Actuarial loss - County	45,691	13,007(2)	16	1,071
	December 31, 2009	Actuarial loss - Court	2,859	2,863	16	236
	December 31, 2009	Actuarial loss - VOM	13	13	16	1
	December 31, 2009	Assumption changes - County	10,990	$3,129^{(2)}$	16	258
	December 31, 2009	Assumption changes - Court	688	689	16	57
	December 31, 2009	Assumption changes - VOM	3	3	16	0
	December 31, 2010	Actuarial loss - County	48,235	48,453	17	3,812
	December 31, 2010	Actuarial loss - Court	3,044	3,058	17	241
	December 31, 2010	Actuarial loss - VOM	14	14	17	1
	December 31, 2010	Assumption changes - County	37,393	37,562	17	2,955
	December 31, 2010	Assumption changes - Court	2,360	2,371	17	187
	December 31, 2010	Assumption changes - VOM	11	11	17	1
	December 31, 2011	Actuarial loss - County	74,087	74,466	18	5,617
	December 31, 2011	Actuarial loss - Court	4,760	4,784	18	361
	December 31, 2011	Actuarial loss - VOM	23	23	18	2
	December 31, 2012	Actuarial loss - County	71,616	71,810	19	5,208
	December 31, 2012	Actuarial loss - Court	4,188	4,200	19	305
	December 31, 2012	Actuarial loss - VOM	99	100	19	7
	December 31, 2012	Assumption changes - County	64,345	64,520	19	4,680
	December 31, 2012	Assumption changes - Court	3,763	3,773	19	274
	December 31, 2012	Assumption changes - VOM	89	90	19	7
	December 31, 2012	Compensation earnable change - County	(8,157)	(8,179)	19	(593)
	December 31, 2012	Compensation earnable change - Court	(477)	(478)	19	(35)
	December 31, 2012	Compensation earnable change - VOM	(11)	(11)	19	(1)
	December 31, 2012	Cashout change - County	(20,626)	(20,682)	19	(1,500)
	December 31, 2013	Actuarial gain - County	(35,260)	(35,260)	20	(2,466)
	December 31, 2013	Actuarial gain - Court	(1,884)	(1,884)	20	(132)
	December 31, 2013	Actuarial gain - VOM	(38)	(38)	20	(3)
Subtotal			. /	\$343,122		\$27,089

⁽¹⁾ Payment is only made by the County and not by the Court or Valley of the Moon because the programs were only available to County employees.



Adjusted to reflect \$289.3 million in proceeds from issuance of Pension Obligation Bonds by the County.

⁽³⁾ Before adjustments for supplemental contributions paid by certain employees to reduce the employer's UAAL.

Appendix E (continued)
Amortization Schedule for UAAL (Dollar Amounts in Thousands)

	Date Established	Source	Initial Amount	Outstanding Balance	Years Remaining	Annual Payment ⁽³⁾
Safety – County	December 31, 2007	Restart amortization	\$43,504	\$12,162 ⁽²⁾	15	\$1,052
	December 31, 2007 ⁽¹⁾	Cash Allowance	14,693	$4,108^{(2)}$	14	375
	December 31, 2008	Actuarial loss	7,603	$2,149^{(2)}$	15	186
	December 31, 2009	Actuarial loss	28,643	$8,154^{(2)}$	16	671
	December 31, 2009	Assumption changes	7,337	$2,090^{(2)}$	16	172
	December 31, 2010	Actuarial loss	14,765	14,832	17	1,167
	December 31, 2010	Assumption changes	14,376	14,441	17	1,136
	December 31, 2011	Actuarial loss	24,746	24,873	18	1,876
	December 31, 2012	Actuarial loss	26,012	26,082	19	1,892
	December 31, 2012	Assumption changes	12,268	12,301	19	892
	December 31, 2012	Compensation earnable				
		change	(2,613)	(2,620)	19	(190)
	December 31, 2012	Cashout change	(11,987)	(12,020)	19	(872)
	December 31, 2013	Actuarial gain	(6,051)	(6,051)	20	(423)
Subtotal		-		\$100,501		\$7,934
Safety – Valley of the Moon	December 31, 2007	Restart amortization	\$1,852	\$1,821	15	\$158
•	December 31, 2008	Actuarial loss	169	168	15	15
	December 31, 2009	Actuarial loss	678	679	16	56
	December 31, 2009	Assumption changes	174	174	16	14
	December 31, 2010	Actuarial loss	344	346	17	27
	December 31, 2010	Assumption changes	335	337	17	27
	December 31, 2011	Actuarial loss	639	642	18	48
	December 31, 2012	Actuarial loss	1,444	1,448	19	105
	December 31, 2012	Assumption changes	681	683	19	50
	December 31, 2012	Compensation earnable				
		change	(145)	(145)	19	(11)
	December 31, 2013	Actuarial gain	(333)	(333)	20	(23)
Subtotal		-		\$5,820		\$466

⁽¹⁾ Payment is only made by the County and not by the Court or Valley of the Moon because the programs were only available to County employees.



⁽²⁾ Adjusted to reflect \$289.3 million in proceeds from issuance of Pension Obligation Bonds by the County.

⁽³⁾ Before adjustments for supplemental contributions paid by certain employees to reduce the employer's UAAL.

Appendix E (continued)

Amortization Schedule for UAAL (Dollar Amounts in Thousands)

	Date Established	Source	Initial Amount	Outstanding Balance	Years Remaining	Annual Payment ⁽²⁾
Total	December 31, 2007	Restart amortization	\$177,351	\$56,939 ⁽¹⁾	15	\$4,927
	December 31, 2007	Cash Allowance	70,675	$19,759^{(1)}$	14	1,804
	December 31, 2008	Actuarial loss	55,470	$18,013^{(1)}$	15	1,559
	December 31, 2009	Early Retirement Option	1,448	$412^{(1)}$	16	34
	December 31, 2009	Actuarial loss	77,884	$24,716^{(1)}$	16	2,035
	December 31, 2009	Assumption changes	19,192	$6,085^{(1)}$	16	501
	December 31, 2010	Actuarial loss	66,402	66,703	17	5,248
	December 31, 2010	Assumption changes	54,475	54,722	17	4,306
	December 31, 2011	Actuarial loss	104,255	104,788	18	7,904
	December 31, 2012	Actuarial loss	103,359	103,640	19	7,517
	December 31, 2012	Assumption changes	81,146	81,367	19	5,903
	December 31, 2012	Compensation earnable				
		change	(11,403)	(11,433)	19	(830)
	December 31, 2012	Cashout change	(32,613)	(32,702)	19	(2,372)
	December 31, 2013	Actuarial gain	(43,566)	(43,566)	20	(3,047)
Subtotal		-		\$449,443		\$35,489

⁽¹⁾ Adjusted to reflect \$289.3 million in proceeds from issuance of Pension Obligation Bonds by the County.

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⁽²⁾ Before adjustments for supplemental contributions paid by certain employees to reduce the employer's UAAL.