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#### June 30, 2013, Actuarial Valuation with February 13, 2014, Addendum

This PDF file contains SamCERA's June 30, 2013, actuarial valuation, along with an addendum dated February 13, 2014.

The purpose of the addendum is to provide alternative employer and member contribution rates for the fiscal year beginning July 1, 2014.

The alternative rates are provided because of two events which affected the contribution rates originally calculated in the valuation. (1) Assembly Bill 1380 added Section 31620.5 to the Government Code which revises the provisions for the calculation of member contribution rates for members of Plan 7; and (2) the San Mateo County Board of Supervisors and SamCERA Board of Retirement adopted a Memorandum of Understanding (MOU) regarding retirement system funding.

The addendum proposes three alternative scenarios for contribution rates, which are detailed on page two of that document. The Board adopted Alternative #2 and Alternative #3.

The full actuarial valuation immediately follows this page. The addendum has been attached at the end of the valuation.

Actuarial Valuation June 30, 2013

Ву

Nick J. Collier

Associate, Society of Actuaries Enrolled Actuary Member, American Academy of Actuaries

and

Craig J. Glyde

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September 18, 2013

Board of Retirement San Mateo County Employees' Retirement Association 100 Marine Parkway, Suite 125 Redwood Shores, CA 94065-5208

Dear Members of the Board:

As requested, we have completed an actuarial valuation for the San Mateo County Employees' Retirement Association (SamCERA). The purpose of the valuation is to recommend the employer and member contribution rates for the fiscal year beginning July 1, 2014.

#### **Actuarial Certification – Per SamCERA Consulting Contract**

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices, including Actuarial Standards of Practice (ASOPs) Nos. 4, 27 and 35. In particular, it reflects the actuary's responsibility under Section 5.8 of ASOP No. 4 for assessing the implications of overall results, in terms of short- and long-range benefit security and expected cost progression.

To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our best professional judgment, the assumptions and methodologies as adopted by the Board of Retirement, individually and in combination, are reasonably related to the experience of and the expectations for SamCERA, and will not, in and of themselves, expose the retirement system to "unsound financial risk." In this regard, we consider "unsound financial risk" to mean the following:

- A substantial likelihood that future required contribution rates as a percentage of payroll
  will be dramatically higher than the rates shown in this report, given the uncertainties of
  actuarial projections and assuming the full payment of all recommended contributions; or
- A substantial likelihood that SamCERA's assets will be insufficient to pay benefit payments when due, given the uncertainties of actuarial projections and assuming the full payment of all recommended contributions.

In preparing this report, we have complied with all quality assurance procedures detailed on page 14 of our November 28, 2005 proposal titled "Response for Request for Actuarial Services."

#### **Actuarial Certification – Milliman**

The major findings of the valuation are contained in this report. This report reflects the benefit provisions and contribution rates in effect as of June 30, 2013. In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by SamCERA's

This work product was prepared solely for SamCERA for the purposes described herein and may not be appropriate to use for other purposes.

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staff. This information includes, but is not limited to, statutory provisions, employee data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any data of this information is inaccurate or incomplete, our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for SamCERA have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of SamCERA and reasonable expectations) and which, in combination, offer a reasonable estimate of anticipated experience affecting SamCERA. We will next be reviewing the assumptions in 2014 as part of our triennial investigation.

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 or additional cost or contribution requirements based on the plan's funded status); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The Board of Retirement has the final decision regarding the appropriateness of the assumptions and adopted them as indicated in Appendix A.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for SamCERA. Actuarial computations under GASB Statement No. 25 are for purposes of fulfilling financial accounting requirements. The computations prepared for this purpose may differ as disclosed in our report. The calculations in this report have been made on a basis consistent with our understanding of SamCERA's current funding requirements and of GASB Statement No. 25. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

Milliman's work is prepared solely for the internal business use of SamCERA. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exceptions:

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- (b) The System may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.



No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are pension actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

We would like to express our appreciation to Mr. David Bailey, Chief Executive Officer of SamCERA, and to members of his staff, who gave substantial assistance in supplying the data on which this report is based.

We respectfully submit the following report, and we look forward to discussing it with you.

Sincerely,

Nick J. Collier, ASA, EA, MAAA

Vid Cellin

**Consulting Actuary** 

NJC/CJG/nlo

Craig J. Glyde, ASA, EA, MAAA Consulting Actuary

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### **Section 1: Summary of the Findings**



#### 2013 Valuation Results

	June 30, 2013	June 30, 2012
Employer Contribution Rate*	37.47%	35.49%
Funded Ratio	73.3%	72.0%

<sup>\*</sup> Weighted average contribution rate for only the County is 37.70% of pay.

#### Overview

This report presents the results of the June 30, 2013 actuarial valuation. Several key points are summarized as follows:

- **Funding:** The Funded Ratio increased from 72.0% to 73.3%. This increase was primarily due to contributions in excess of the value of benefits earned.
- Contribution Rates: The Employer Normal Cost rate of 11.19% decreased from 11.52% reported in the prior year. This rate was influenced by the increased number of members in plans 5, 6, and 7 which are less expensive than plans 1, 2, and 4 and a decrease in the average entry age of the active population. Rates will vary slightly from year to year as the average entry age of the membership changes and as a greater proportion of members enter the less expensive plans.

The employer's required contribution rate to finance the Unfunded Actuarial Accrued Liability (UAAL) over 15 years increased from 23.97% to 26.28%. This increase is largely driven by the recognition of asset losses from prior years under the smoothing method. Additionally, a decrease in payroll resulted in an increase in the contribution as a percentage of pay. The overall result is an increase in the required total contribution rate from the prior valuation of 1.98% (from 35.49% to 37.47% of payroll).

■ Investment Returns: SamCERA's investment return on the market value of assets for the prior year of 13.6% (as calculated by SamCERA) was greater than the actuarial assumed rate of 7.50% (effective for the prior year). Combined with the recognition of net investment losses from prior years, the net result was a return on the actuarial value of assets of 3.7%, which is lower than the expected return. This actuarial loss on valuation assets caused an increase in the required employer contribution rate.

Note that currently a \$109 million net asset gain is being deferred. This is because the asset-smoothing method has not yet recognized a portion of the net asset gains from the current and prior four years. These deferred gains will be reflected in future valuations.



## Overview (continued)

New Benefits: New benefit provisions and member contributions rates have been negotiated recently for certain employees.

All Plan 1, 2, and 4 members of the Union of American Physicians and Dentists (UAPD) and Probation and Detention Association (PDA) now contribute 25% of the expected cost of post-retirement cost-of-living-adjustments (COLAs). This is in addition to their basic member contributions and non-COLA cost sharing.

Effective January 1, 2013, all new members enter Plan 7. Plan 7 is legislated under the Public Employees' Pension Reform Act of 2013 (PEPRA) and is expected to provide smaller individual pension benefits and lower employer pension costs.

See Appendix B for a more complete description of the provisions of these new Plans.

■ New Member Rates: For Plan 7 Safety and Probation members, the total Normal Cost rate changed by more than 1% from the original study. Note that the size of these groups is very small which has resulted in some variability in these rates compared to our original study calculations. Under PEPRA, member rates for these two groups should be changed such that they are one-half of the new Normal Cost rate, rounded to the nearest ¼%. There is no change to the General Plan 7 member rate. See Exhibit 1b for details.

New member rates are also shown for UAPD reflecting the COLA share. Finally, we have shown the member contribution rates for Probation managers without the 20% pick-up that applies to non-manager Probation members. A complete list of all member rates is shown in Appendix D.

## Comparison with Prior Year

Note that for comparison purposes, the prior year employer contribution rates shown in this report are those calculated in the June 30, 2012 actuarial valuation.

### Summary of Recommendations

The following exhibits summarize our recommendations to the Board.



### Exhibit 1a Summary of Recommendations

Recommendation #1: Add	pt new employer contribution	rates for fiscal v	ear beginning July	1 2014

	Fiscal Year	Fiscal Year Beginning		
	July 1, 2014	July 1, 2013	(Decrease)	
Gross Normal Cost	21.74%	22.04%	(0.30)%	
Member Contributions	(10.55)%	(10.52)%	(0.03)%	
Employer Normal Cost	11.19%	11.52%	(0.33)%	
UAAL Amortization	26.28%	23.97%	2.31%	
Total Employer Rate	37.47%	35.49%	1.98%	

#### Notes:

- 1) Detailed contribution rates by plan are shown in Section 6.
- 2) As of the 2013 actuarial valuation, the member contribution rates for current members of the Union of American Physicians and Dentists and Probation and Detention Association reflect 25% of the cost of COLA, in addition to previously effective member rates and cost sharing.



Exhibit 1b Summary of Recommendations (continued)

Recommendation #2: Adopt new member contribution rates for fiscal year beginning July 1, 2014 for the following member groups

		Recommended Rates			Current		
	Entry Age	Basic	COLA Cost Sharing	Cost Sharing	Total as a % of Pay	Total as a % of Pay	Ratio (New/Curr)
General Members							
Plan 1:							
UAPD (1)	25	6.19%	1.29%	3.00%	10.48%	9.19%	114.1%
-	35	7.42%	1.55%	3.00%	11.97%	10.42%	114.9%
	45	8.91%	1.86%	3.00%	13.77%	11.91%	115.6%
Plan 2:							
UAPD (1)	25	6.19%	1.02%	3.00%	10.21%	9.19%	111.0%
	35	7.42%	1.22%	3.00%	11.64%	10.42%	111.7%
	45	8.91%	1.46%	3.00%	13.37%	11.91%	112.3%
Plan 4:							
UAPD (1)	25	5.94%	0.66%	3.00%	9.60%	8.94%	107.4%
-	35	7.12%	0.80%	3.00%	10.92%	10.12%	107.9%
	45	8.51%	0.95%	3.00%	12.46%	11.51%	108.3%
Plan 7: <sup>(4)</sup>							
All members		5.18%	2.57%	0.00%	7.75%	7.75%	100.0%
Probation Members							
Plans 1 & 2:							
Managers (2)(3)	25	8.41%	N/A	3.50%	11.91%	10.23%	116.4%
ŭ	35	10.09%	N/A	3.50%	13.59%	11.58%	117.4%
	45	11.89%	N/A	3.50%	15.39%	13.01%	118.3%
Plan 4:							
Managers (2)(3)	25	8.07%	N/A	3.50%	11.57%	9.96%	116.2%
managoro	35	9.68%	N/A	3.50%	13.18%	11.25%	117.2%
	45	11.20%	N/A	3.50%	14.70%	12.46%	118.0%
Plan 7: <sup>(4)</sup> All members		8.58%	5.17%	0.00%	13.75%	12.25%	112.2%
Cofety Members							
Safety Members							
Plan 7: <sup>(4)</sup> All members		8.97%	5.28%	0.00%	14.25%	13.00%	109.6%

<sup>(1)</sup> Effective with the 2013 actuarial valuation members of the Union of American Physicians and Dentists will contribute 25% of the cost of the COLA. See Appendix D of this report for a full schedule of rates.



<sup>(2)</sup> Effective with the 2013 actuarial valuation Probation Managers will not receive any employer pick-up. See Appendix D of this report for a full schedule of rates.

<sup>(3)</sup> Current rates shown for Probation Managers are from the 2012 actuarial valuation and reflect 20% employer pick-up.

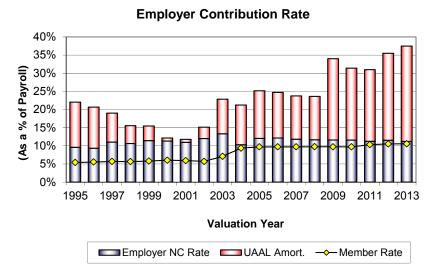
<sup>(4)</sup> Plan 7 member rates are included in the actuarial valuation for the first time in 2013.

## **Employer Contribution Rate**

Under the Board's current funding objectives, the calculated employer contribution rate for the fiscal year beginning July 1, 2014 is 37.47% of payroll. This is equal to the payment of the Employer Normal Cost rate plus a 15-year layered amortization of the UAAL for each year beginning with the UAAL as of June 30, 2008. It should be noted that this is a weighted average for all SamCERA plans. The actual percent of payroll to be contributed by the employer varies by plan. See Exhibits 10 through 10e for the total employer contribution rates by plan.

This contribution rate is currently adequate to maintain the funding of the retirement system benefits based on the actuarial methods and assumptions shown in Appendix A of this report.

A historical perspective of the total employer contribution rate is shown in the following graph.



### Comparison with Last Year

A detailed analysis of the sources of the changes in both the employer contribution rate and the Funded Ratio was performed. There were several factors that influenced the Funded Ratio and the employer contribution rate, with the overall impact of these additional factors being an increase in the Funded Ratio and the employer rates from the last valuation.

### Comparison with Last Year (continued)

The following chart shows how the various factors affected the overall funding of SamCERA, as compared to the last valuation.

Sources of Change	Employer Contribution Rate	Funded Ratio
June 30, 2012 Actuarial Valuation	35.49%	72.0%
Expected Year-to-Year Change Recognized Asset Gain/Loss	0.00%	2.1%
From Current Year	-0.50%	0.6%
From Prior Years	2.63%	-3.2%
Retiree COLAs Less than Expected	-0.20%	0.2%
Salary Increase < Assumed	-1.35%	1.2%
Payroll Decrease	1.68%	0.0%
Employer Rate > Required	-0.32%	0.4%
PEPRA Savings	-0.05%	0.0%
Other Experience Changes	0.08%	0.0%
Total Change	1.98%	1.3%
June 30, 2013 Actuarial Valuation	37.47%	73.3%

### **Funding Progress**

Based on the 2012 valuation, the expected UAAL as of June 30, 2013 was \$928 million. The actual UAAL for the fiscal year ending June 30, 2013 is \$954 million. This difference was primarily caused by the recognition of asset losses. Other factors, such as salary increases and CPI increases, less than assumed somewhat offset this loss on the UAAL. These factors are shown in detail at the end of Section 4.

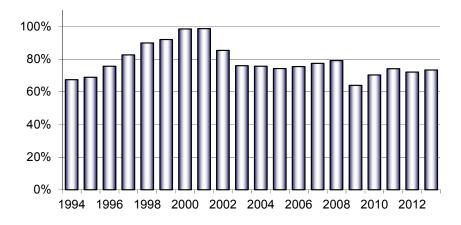
One measure of the funding adequacy of the system is the Funded Ratio, which compares the value of the Actuarial Value of Assets (net of certain non-valuation reserves) to the Actuarial Accrued Liability (AAL), for all SamCERA plans combined. SamCERA's Funded Ratio increased rapidly in the last half of the 1990s, reaching almost 100% in 2001. However, due primarily to asset losses since that time, the Funded Ratio has decreased significantly since then. Currently, the Funded Ratio is 73.3%; that is, the actuarial value of assets of \$2,619 million is about 27% less than the actuarial accrued liabilities of \$3,573 million. Note that if the market value of assets was used, the Funded Ratio would be 76.4%.

## Funding Progress (continued)

#### (All dollar amounts in millions)

	Market	Actuarial Value			
	Value of Total Assets	Valuation	Non- Valuation	Actuarial Accrued Liability	Funded Ratio
2004	\$1,435	\$1,453	\$31	\$1,921	75.6%
2005	1,599	1,616	0	2,178	74.2
2006	1,790	1,769	0	2,345	75.4
2007	2,132	1,977	0	2,555	77.4
2008	2,011	2,219	0	2,806	79.1
2009	1,591	1,910	0	2,988	63.9
2010	1,816	2,179	0	3,098	70.3
2011	2,318	2,405	0	3,247	74.1
2012	2,360	2,480	0	3,443	72.0
2013	2,728	2,619	0	3,573	73.3

#### **Historical Funded Ratios**



#### **Assets**

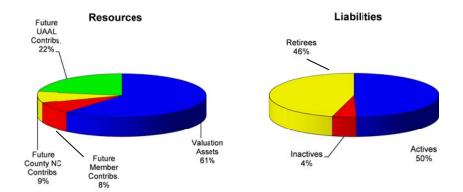
For the fiscal year ending June 30, 2013, we estimate that SamCERA earned 13.8%, net of investment expenses, on its market assets. Note that our return figure may be slightly different than that shown in the 2013 CAFR due to timing of contributions and benefit payments, as well as the treatment of expenses.

SamCERA uses an asset-smoothing method in the calculation of the UAAL contribution. Under this method, the market value returns are smoothed over a five-year period (10 six-month periods). Due to the recognition of deferred prior year asset losses, the return on actuarial valuation assets, at 3.7%, net of expenses, was less than the expected return of 7.50% for the prior year.

#### Actuarial Balance Sheet

The first step in the valuation process is to compare the total valuation assets of SamCERA with its total liabilities for all plans. In this analysis, SamCERA's resources equal the actuarial assets plus the expected future contributions by both the employers and members. Liabilities reflect benefits already earned in the past and those expected to be earned in the future by current members. This relationship is shown in the following chart. The AAL is the total of these liabilities less expected future Normal Cost contributions.

Comparing the current and future resources to the current and future liabilities, we then determine the annual contribution amount for the coming fiscal year.

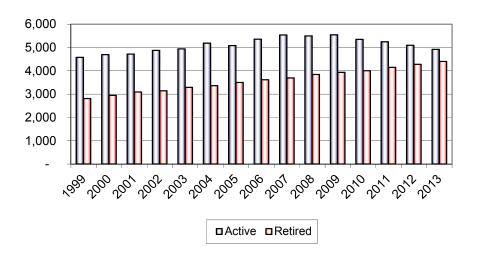


#### **Member Information**

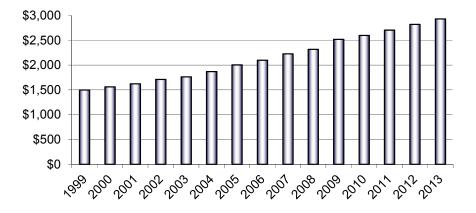
The number of active members included in the valuation decreased by 3.5% from 5,095 in 2012 to 4,917 in 2013.

Retired member counts and average retirement benefit amounts continue to increase steadily. For 2013, there were 4,398 retired members and beneficiaries with an average benefit of \$2,933 per month. This represents a 2.9% increase in count (up from 4,275 in 2012), and a 3.9% increase in the average monthly benefit (up from \$2,823 over the period).

### **Membership Count**



#### **Average Monthly Retirement Benefit**





# Analysis of Change in Member Population

The following table summarizes the year-to-year change in member population.

	Active Contributing Members	Deferred Members	Retirees, Disabilities, & Beneficiaries
June 30, 2012 Valuation	5,095	1,212	4,275
Termination without Refund	(287)	287	-
Termination with Refund	(173)	(46)	-
Active/Deferred Death with Annuity	(5)	(2)	7
Service Retirement	(141)	(68)	209
Disability Retirement	(4)	(8)	12
Retiree Death without Beneficiary	-	-	(107)
New Entrants	365	-	-
Rehires	67	(69)	2
Total Change	(178)	94	123
June 30, 2013 Valuation	4,917	1,306	4,398

## Summary Valuation Results

The following Exhibit 2 presents a comparison of the key results from the June 30, 2013 and June 30, 2012 valuations. More detail on each of these elements can be found in the following sections and exhibits of this report.

Exhibit 2: **Summary of Significant Valuation Results** 

			June 30, 2013		June 30, 2012	Relative Change
1	Total Membership					
١.	A. Active Members		4,917		5,095	(3.5)%
	B. Retired Members & Beneficiaries		4,398		4,275	2.9%
	C. Vested Terminated Members		1,306		1,212	7.8%
	D. Total		10,621		10,582	0.4 %
2.	Pay Rate					
	A. Annual Total (\$thousands)	\$	414,551	\$	427,650	(3.1)%
	B. Monthly Average	\$	7,026	\$	6,995	0.4%
3.	Average Monthly Benefit to Current Retirees and Beneficiaries					
	A. Service Retirement	\$	3,071	\$	2,955	3.9%
	B. Disability Retirement	\$	3,032	\$	2,927	3.6%
	C. Surviving Spouse and Dependents D. Total	\$	2,008	\$	1,943	3.3% 3.9%
	D. Total	\$	2,933	\$	2,823	3.9%
4.	Actuarial Accrued Liability (\$thousands)					
	A. Active Members	\$	1,415,160	\$	1,419,762	(0.3)%
	B. Retired Members	\$ \$ \$	1,964,840	\$	1,854,820	5.9%
	C. Vested Terminated Members	\$	192,750	\$	167,971	14.8%
	D. Total	\$	3,572,750	\$	3,442,553	3.8%
5.	Assets					
	A. Market Value of Fund (\$thousands)	\$	2,727,825	\$	2,360,304	15.6%
	B. Return on Market Value	Φ.	13.6%	Φ.	-0.4%	F 00/
	C. Actuarial Value (\$thousands) D. Return on Actuarial Value	\$	2,618,639 3.7%	\$	2,480,271 0.7%	5.6%
			3.770		0.770	
6.	Unfunded Actuarial Accrued Liability	¢.	954,111	ď	062.202	(0.8)0/
	or Surplus Funding (\$thousands)	\$	954,111	\$	962,282	(0.8)%
7.	Required employer contribution rate for all plans combined as a percent of total payroll					
	A. Gross Normal Cost		21.74%		22.04%	(1.4)%
	B. Member Contributions		(10.55)%		(10.52)%	0.3%
	C. Employer Normal Cost		11.19%		11.52%	(2.9)%
	D. UAAL Amortization		26.28%		23.97%	9.6%
	E. Total Employer Rate		37.47%		35.49%	5.6%
8.	Funded Ratio (5C / 4D)		73.3%		72.0%	1.7%
9.	Results Based on Market Value (No Asset Smoothir	ng) -	- For Informational	Purpo	ses Only	
	A. Total Employer Rate	٥,	34.99%	1	37.98%	(7.9)%
	B. Funded Ratio (5A / 4D)		76.4%		68.6%	11.4%



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### Section 2: Scope of the Report



This report presents the actuarial valuation of the San Mateo County Employees' Retirement Association as of June 30, 2013. This valuation was requested by the Board. Section 31453 of the County Employees Retirement Law of 1937 (the '37 Act) requires an actuarial valuation to be performed at least every three years for the purposes of setting contribution rates.

In reading our cover letter, please pay particular attention to the guidelines employed in the preparation of this report. We also comment on the sources and reliability of both the data and the actuarial assumptions upon which our findings depend. Those comments are the basis for our certification that this report is complete and accurate to the best of our knowledge and belief.

A summary of the findings resulting from this valuation is presented in the previous section. Section 3 describes the assets and investment experience of SamCERA. The assets and investment income are presented in Exhibits 3-5. Exhibits 6-8 develop the Actuarial Value of Assets as of June 30, 2013.

Section 4 describes the benefit obligations of SamCERA. Exhibit 9 is the Actuarial Balance Sheet. Additional analysis on the change in UAAL is also provided in this section.

Section 5 discusses the Member contribution rates.

Section 6 discusses the employer contributions needed to fund the benefits under the actuarial cost method in use.

Section 7 discloses the information required under Statement No. 25 of the Governmental Accounting Standards Board (GASB).

This report includes several appendices:

Appendix E

•	Appendix A	A summary of the actuarial procedures and assumptions used to estimate liabilities and contributions.
•	Appendix B	A summary of the current benefit structure, as determined by the provisions of governing law on June 30, 2013.
٠	Appendix C	Schedules of valuation data classified by various categories of members by plan.
•	Appendix D	Member contribution rates by plan.

A glossary of actuarial terms used in this report.



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#### Section 3: Assets



In many respects, an actuarial valuation can be thought of as an inventory process. The inventory is taken as of the actuarial valuation date which, for this valuation, is June 30, 2013. On that date, the assets available for the payment of retirement benefits are appraised. These assets are compared with the accrued and future actuarial liabilities, which are generally well in excess of the actuarial assets. The purpose of the valuation is to determine what future contributions by the members and employer are needed to pay all expected future benefits.

This section of the report deals with the determination of assets used for funding purposes. In the next section, the actuarial liabilities will be discussed. Sections 5 and 6 deal with the process for determining required contributions based on the relationship between the actuarial assets and the actuarial liabilities.

A historical summary of SamCERA's assets is presented below:

All dollar amounts in millions

		Actuari	al Value
	Market Value of Total Assets	Non- Valuation Reserves	Valuation <u>Assets</u>
2000 2001 2002 2003 2004	\$ 1,381 1,308 1,207 1,233 1,435	\$ 49 51 32 34 31	\$ 1,271 1,385 1,417 1,354 1,453
2005 2006 2007 2008 2009	1,599 1,790 2,132 2,011 1,591	0 0 0 0	1,616 1,769 1,977 2,219 1,910
2010 2011 2012 2013	1,816 2,318 2,360 2,728	0 0 0 0	2,179 2,405 2,480 2,619

On June 30, 2013, the total market value of the fund was about \$2.73 billion. The actuarial value of the fund was determined to be \$2.62 billion, including the non-valuation reserves.



#### **Financial Exhibits**

Exhibit 3 presents a Statement of Plan Net Assets and Exhibit 4 presents a Statement of Changes in Plan Net Assets. Exhibit 5 describes the allocation of SamCERA's assets by the various reserve values determined for accounting purposes.

Exhibits 3-5 are taken directly from data furnished to us by SamCERA for its annual financial report. We have accepted these tables for use in this report without audit, but we have reviewed them for reasonableness and consistency with previous reports.

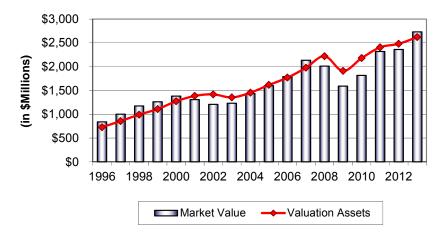
### Actuarial Asset Method

The actuarial asset method computes the expected market value of assets based on the prior year's market value of assets, the actual cash flow of contributions and benefit payments, and the assumed investment rate of return. For the current valuation, the assumed rate of return on the prior year's assets is 7.50%, net of all expenses. The difference between the actual market value and the computed expected market value is smoothed, or recognized over a five-year period.

## Actuarial Value of Assets

The development of the June 30, 2013 actuarial value of assets is shown in Exhibits 6 and 7. Note that the smoothing process has recognized all of the investment gains and losses from 2008 and earlier over the last few years. However, there are still portions of investment gains and losses that have not yet been recognized by the asset smoothing method, including the current year gain. The result is a market value of assets that is higher than the actuarial value. The following graph shows a historical comparison of the actuarial and market assets used for valuation purposes.

#### **Applicable Valuation Assets**



#### **Valuation Assets**

Valuation Assets are the actuarial value of the fund, less the value of any reserves which have been set aside for current liabilities and special benefits (if any) that are to be funded outside of the actuarially determined contribution rates.



#### **Allocation of Assets**

Valuation assets are allocated by classification (general, safety and probation) as shown in Exhibit 8. This is because UAAL contribution rates are determined separately by class.

In the calculation of the required contribution rate, the Normal Cost is determined separately for each plan. The UAAL portion of the rate is allocated proportionately to each classification. To determine the UAAL amount by classification, the valuation assets are allocated in proportion to the expected UAAL, after reflecting expected contributions from the prior year to pay down the UAAL.



**Statement of Plan Net Assets** Exhibit 3: for the Years Ended June 30, 2012 and 2013

	2013	2012
Assets		
Cash and Cash Equivalents	39,405,154	49,733,227
Securities Lending Cash Collateral	136,413,481	199,380,508
Total Cash	\$ 175,818,636 \$	249,113,735
Receivables		
Contributions	3,611,259	3,702,233
Due from broker for investments sold	139,326,538	125,066,558
Investment Income	4,998,825	5,414,934
Other receivables	113,812	113,496
Securities Lending Income	60,596	97,138
Total Receivables	148,111,030	134,394,359
Prepaid Expense	7,669	7,669
Investments at Fair Value		
Domestic fixed income securities	428,578,645	554,504,406
International fixed income securities	112,393,585	-
Domestic equities	1,135,856,342	902,422,401
International equities	494,939,553	408,832,756
Real estate	166,154,482	146,917,122
Private Equities	64,325,070	19,404,901
Risk Parity	157,444,012	152,628,991
Hedge Funds	73,717,734	68,994,760
Commodities	69,083,062	69,902,427
Total Investments	2,702,492,485	2,323,607,764
Capital Assets Net of Depreciation	-	-
Total Assets	3,026,429,819	2,707,123,527
Liabilities		
Payables		
Investment management fees	2,519,194	2,533,960
Due to broker for investments purchased	154,293,081	141,487,676
Collateral Payable for Securities Lending	136,413,481	199,380,508
Mortgage Note Payable		
Due within one year	-	-
Due in more than one year	-	=
Other	5,378,731	3,417,729
Total Liabilities	298,604,487	346,819,873
Net Assets Held in Trust for Pension Benefits	\$ 2,727,825,332 \$	2,360,303,654



Exhibit 4: Statement of Changes in Plan Net Assets for the Years Ended June 30, 2012 and 2013

	2013	2012
Additions	2013	2012
Contributions		
Employer	\$ 144,308,171	\$ 150,949,761
Employee	55,407,941	49,687,136
Total Contributions	199,716,112	200,636,897
Investment Income/(Loss)	EE 101 04E	64 652 054
Interest and dividends	55,101,945 293,808,144	61,653,951
Net appreciation/(depreciation) in Fair Value	348,910,089	(51,737,514) 9,916,437
Loss investment evenes	, ,	
Less investment expense Net Investment Income/(Loss)	21,926,630 326,983,459	20,940,955 (11,024,519)
Net investment income/(Loss)	320,963,439	(11,024,519)
Securities Lending Income		
Earnings	402,803	452,442
Less securities lending expense	(219,089)	(268,777)
Net Securities Lending Income	621,892	721,219
Other Additions	159,510	29,025
Total Additions/(Declines)	527,480,973	190,362,623
Deductions		
Association Benefits		
Service retirement allowances	131,638,612	122,541,648
Disability retirement allowances	16,705,247	15,532,365
Medical Benefits	-	-
Death and other death benefits	921,788	1,133,577
Total Association Benefits	149,265,647	139,207,590
Refunds of members' contributions	5,749,776	3,627,492
Administrative Expense	4,914,187	5,033,047
Other Expense	29,685	(33,331)
Total Deductions	159,959,295	147,834,798
Net Increase/(Decrease)	367,521,678	42,527,825
Net Assets Held in Trust for Pension Benefits:		
Beginning of Year	2,360,303,654	2,317,775,829
End of Year	2,727,825,332	2,360,303,654
	_,,,,,	_,==,==,===,====
Estimated Return, Net of Investment Expenses	13.6%	-0.4%

<sup>\*</sup> May differ from return reported in CAFR due to timing of contributions and benefit payments and treatment of expenses.



Exhibit 5: **Allocation of Assets by Accounting Reserve Amounts** for the Years Ended June 30, 2012 and 2013

Valuation Reserves		2013		2012
Member Deposit Reserve	\$	534,275,685	\$	498,568,652
2. County Advance Reserve	·	422,581,774	·	361,197,981
3. Retiree Reserves		918,589,967		858,440,088
4. Cost of Living Reserve		930,358,295		843,061,707
5. Total Valuation Reserves	\$	2,805,805,721	\$	2,561,268,428
Non-Valuation Reserves		2013		2012
Contingency Reserve				
a. Reserves for Deficiencies in Interest Earnings	\$	-	\$	-
b. Unallocated Earnings / Loss Account		(187,166,322)		(80,997,723)
c. Total	\$	(187,166,322)	\$	(80,997,723)
Market Stabilization Account		109,185,933		(119,967,051)
3. Total Non-Valuation Reserves	\$	(77,980,389)	\$	(200,964,774)
4. Total Reserves (Market Value of Assets)	\$	2,727,825,332	\$	2,360,303,654

Note: These amounts were determined by SamCERA for accounting purposes.

Exhibit 6: Five-Year Smoothing of Gains and Losses on Market Value – History

	History of Unexpected Asset Gains and Losses											
Six-Month Period Ended	Market Value at Beginning of Period	Contributions	Benefit Payments	Market Value at End of Period	Assumed Rate of Return		Expected Return		Actual Return		Unexpected Gain / (Loss)	
6/30/2013 \$	2,558,508,635	\$ 99,631,258	\$ 78,520,689	2,727,825,332	3.750%	\$	97,496,612	\$	148,206,128	\$	50,709,516	
12/31/2012	2,360,303,654	100,084,854	76,494,734	2,558,508,635	3.750%		89,983,040		174,614,861		84,631,821	
6/30/2012	2,280,940,966	28,676,113	73,157,072	2,360,303,654	3.875%		87,461,531		123,843,647		36,382,116	
12/31/2011	2,317,775,829	171,960,784	69,678,010	2,280,940,966	3.875%		91,600,467		(139,117,637)		(230,718,104)	
6/30/2011 *	2,167,939,516	96,998,690	67,484,144	2,317,775,829	3.875%		85,497,449		120,321,766		34,824,317	
12/31/2010	1,815,896,455	102,489,209	64,824,842	2,167,939,516	3.875%		72,262,382		314,378,695		242,116,312	
6/30/2010	1,863,720,265	80,266,609	63,207,613	1,815,896,455	3.875%		73,179,765		(64,882,806)		(138,062,572)	
12/31/2009	1,591,399,558	76,317,198	61,669,503	1,863,720,265	3.875%		61,835,437		257,673,013		195,837,576	
6/30/2009	1,594,401,527	27,183,773	59,331,550	1,591,399,558	3.875%		61,167,136		29,145,808		(32,021,328)	
12/31/2008	2,010,738,768	129,310,873	57,454,173	1,594,401,527	3.875%		80,910,069		(488,193,941)		(569,104,010)	

<sup>\* 2011 &</sup>quot;Market Value at End of Period" reflects revisions to assets by SamCERA following publication of the June 30, 2011 actuarial valuation.



### Exhibit 7: Five-Year Smoothing – Development of Valuation Assets

Davida		Mauliat Cta	hilimatia	D
Develo	oment of	<b>Market Sta</b>	Dilization	Reserve

	Phase-Out of Gain / (Loss)								
Six-Month	Percent			Unexpected			Gain / (Loss)		
Period Ended	Excluded			Gain / (Loss)			Excluded		
6/30/2013	90%	Х	\$	50,709,516	=	\$	45,638,565		
12/31/2012	80%	х		84,631,821	=		67,705,456		
6/30/2012	70%	Х		36,382,116	=		25,467,481		
12/31/2011	60%	Х		(230,718,104)	=		(138,430,862)		
6/30/2011	50%	Х		34,824,317	=		17,412,158		
12/31/2010	40%	Х		242,116,312	=		96,846,525		
6/30/2010	30%	Х		(138,062,572)	=		(41,418,772)		
12/31/2009	20%	Х		195,837,576	=		39,167,515		
6/30/2009	10%	Х		(32,021,328)	=		(3,202,133)		
12/31/2008	0%	Х		(569,104,010)	=		0		
Total Gain / (Loss) Excluded = Market Stabilization Reserve					=	\$	109,185,933		

	Development of Valuation Assets									
1.	Market Value of Assets as of June 30, 2013		\$	2,727,825,332						
2.	Preliminary Market Stabilization Reserve			109,185,933						
3.	Preliminary Actuarial Value of Assets (1) - (2)			2,618,639,399						
4.	Corridor Around Market Value a) Minimum = 80% of Market b) Maximum = 120% of Market c) Corridor Adjustment	2,182,260,266 3,273,390,399		0						
5.	Market Stabilization Reserve	109,185,933								
6.	Gross Actuarial Valuation of Assets (3) - (4c)		\$	2,618,639,399						
7.	Non-Valuation Reserves and Designations a) Reserves for Interest Fluctuations b) Medicare Part B Reserve c) Total	0 0		0						
8.	Valuation Assets (6) - (7c)		\$	2,618,639,399						



#### Exhibit 8: **Allocation of Valuation Assets**

(Dollars in Thousands)

		General	Safety	Ī	Probation	Total
Prior Year UAAL		\$ 666,247	\$ 234,517	\$	61,518	\$ 962,282
2. Expected UAAL Cont	ribution for Preceding Year	(67,715)	(27,117)		(6,062)	(100,894)
3. Expected Interest at 7	7.50%	 47,475	16,590		4,391	68,456
4 Expected UAAL Base	d on Prior Year Assumptions	 646,007	223,990		59,847	929,844
5. Percentage of Total E	expected UAAL	69.47%	24.09%		6.44%	100.00%
6. Actual UAAL Based of	n Prior Year Assumptions					954,111
7. Actual AAL Based on	Prior Year Assumptions	\$ 2,630,355	\$ 725,160	\$	217,235	\$ 3,572,750
8. Allocated UAAL Base	d on Prior Year Assumptions	662,866	229,836		61,409	954,111
9. Actuarial Value of A	ssets	\$ 1,967,489	\$ 495,324	\$	155,826	\$ 2,618,639



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#### Section 4: Actuarial Liabilities



In the previous section, an actuarial valuation was compared with an inventory process, and an analysis was given of the inventory of SamCERA's assets as of the valuation date, June 30, 2013. In this section, the discussion will focus on the commitments of SamCERA for retirement benefits, which are referred to as its actuarial liabilities.

In an active system, the combined current and future actuarial liabilities will almost always exceed the actuarial assets. This is usually expected in all but a fully closed down fund, where no further contributions of any sort are anticipated. This deficiency has to be provided by future contributions. An actuarial valuation method sets out a schedule of future contributions that will deal with this deficiency in an orderly fashion. The determination of the level of future contributions needed is discussed in the next section.

#### Actuarial Balance Sheet – Liabilities

First, we need to determine the amount of the deficiency. We compare the Actuarial Value of the Valuation Assets to the Actuarial Liabilities. The difference is the amount that needs to be funded by the member and employer contributions in the future. Both the current and future assets (contributions) are compared to the actuarial liabilities in the Actuarial Balance Sheet.

Exhibit 9 contains an analysis of the actuarial present value of all future benefits for retired, deferred vested and active members. The analysis is given by class of membership and by type of benefit.

The actuarial liabilities include the actuarial present value of all future benefits expected to be paid with respect to each member. For an active member, this value includes measures of both benefits already earned and future benefits to be earned. For all members, active and inactive, the value extends over the rest of their lives and for the lives of any surviving beneficiaries. All liabilities reflect the benefits effective through June 30, 2013.

The actuarial assumptions used to determine the liabilities are based on the results of our investigation of experience report for the period ending April 30, 2011. These assumptions were adopted by the Board at their July 2011 meeting and are shown in Appendix A. The economic assumptions, including an investment return assumption of 7.50%, were adopted at the May 2012 meeting for use in the June 30, 2012 actuarial valuation. The Board re-adopted all assumptions with no changes at the May 2013 meeting. The assumptions will next be reviewed in detail in 2014 as part of the triennial investigation.



Exhibit 9: Actuarial Balance Sheet – June 30, 2013 (Dollars in Thousands)

Resources								
	General Safety Probation							Total
Valuation Assets (Actuarial)	\$	1,967,489	\$	495,324	\$	155,826	\$	2,618,639
Present Value of Future Member Contributions	\$	270,644	\$	55,786	\$	24,841	\$	351,271
Present Value of Future Employer Contributions to Fund:								
a) Normal Cost	\$	246,935	\$	71,384	\$	37,473	\$	355,792
b) Unfunded Actuarial Accrued Liability	\$	662,866	\$	229,836	\$	61,409	\$	954,111
Total Resources	\$	3,147,934	\$	852,330	\$	279,549	\$	4,279,813

	Liabiliti	es		
	General	Safety	Probation	Total
Present Value of Future Benefits				
1. Present Retired Members	\$ 1,397,82	22 \$ 468,060	\$ 98,958	\$ 1,964,840
2. Current Inactive Members	161,2	50 23,828	7,672	192,750
3. Current Active Members				
- Service Retirement	1,436,72	23 327,297	156,489	1,920,509
- Disability Retirement	55,12	24 16,761	8,189	80,074
- Death Benefits	23,4	14 6,998	3,268	33,680
- Deferred Vested Benefit	51,6	7,746	4,521	63,940
- Refund of Member Contributions	21,92	28 1,640	452	24,020
- Total Active	1,588,86	360,442	172,919	2,122,223
Total Actuarial Liabilities	\$ 3,147,93	34 \$ 852,330	\$ 279,549	\$ 4,279,813



#### Actuarial Balance Sheet – Resources

For the purpose of the Actuarial Balance Sheet, SamCERA's resources are equal to the sum of:

- (a) Assets currently available to pay benefits and considered for funding purposes, the Valuation Assets,
- (b) The present value of future contributions expected to be made by current active Members, and
- (c) The present value of future contributions expected to be made by the employer.

### Actuarial Cost Method

The Actuarial Balance sheet determines the amount of future contributions that are needed, but the method used to determine the incidence of when those future contributions are yet to be made in future years is called the "actuarial cost method." For this valuation, the entry age actuarial cost method has been used. Under this method – or essentially any actuarial cost method – the contributions required to meet the difference between current assets and current actuarial liabilities are allocated each year between two elements:

- A Normal Cost amount; and
- Whatever amount is left over, which is used to amortize what is called the UAAL.

#### **Normal Cost**

The two items described above, the Normal Cost and UAAL, are the keys to understanding the actuarial cost method.

The Normal Cost is the theoretical contribution rate that will meet the ongoing costs of a group of average new employees. Suppose that a group of new employees was covered under a separate fund from which all benefits and to which all contributions and associated investment returns were paid.

Under the entry age actuarial cost method, the Normal Cost contribution rate maintains the funding of benefits as a level percentage of pay. If experience follows the actuarial assumptions precisely, the fund would be completely liquidated when the last payment to the last survivor of the group was made.

## Normal Cost (continued)

By applying the Normal Cost contribution rate to the present value of salaries expected to be paid in the future, we determine the present value of future Normal Cost contributions. Future contributions are expected to be made by both the members and the employer. The basic member contribution rates are determined based upon requirements established in the '37 Act and the actuarial assumptions. Members may also make additional contributions as part of a cost sharing or COLA cost sharing arrangements. Based on these member contribution rates, we determine the present value of future member contributions. We subtract that value from the total future Normal Cost contributions expected, based on the entry age cost method. The remaining difference is the employer's portion of the future Normal Cost contributions.

### Actuarial Accrued Liability

The difference between the present value of all future obligations and the present value of the future Normal Cost contributions is referred to as the "actuarial accrued liability." The AAL is then compared to the value of assets available to fund benefits, and the difference is referred to as the UAAL. The results for SamCERA for all plans are summarized below:

(Dollars in millions)	2013	2012	Percent Change
<ul> <li>A. Actuarial present value of all future benefits for contributing members, former contributing members, and their survivors</li> </ul>	\$ 4,280	\$ 4,189	2.2%
<ul> <li>B. Actuarial present value of total future Normal Costs for current members</li> </ul>	<u>707</u>	<u>747</u>	(5.4)%
C. Actuarial accrued liability [A-B]	\$ 3,573	\$ 3,442	3.8%
D. Valuation Assets	<u>2,619</u>	<u>2,480</u>	5.6%
E. UAAL or Surplus Funding [C-D]	\$ 954	\$ 962	(0.8)%
F. Funded Ratio [D/C]	73.3%	72.0%	1.8%

# Unfunded Actuarial Accrued Liability/ Surplus Funding

The portion allocated to service already rendered or accrued is called the Actuarial Accrued Liability. The difference between the Actuarial Accrued Liability and the Valuation Assets is called the Unfunded Actuarial Accrued Liability (UAAL). If a UAAL amount exists, it usually results from prior years' benefit or assumption changes and the net effect of accumulated gains and losses. If the employer had always contributed the current Normal Cost, if there were no prior benefit or assumption changes and if actual experience exactly matched the actuarial assumptions, the present value of all future Normal Cost contributions would be sufficient to fund all benefits and there would be no UAAL.

Exhibit 9 shows how the UAAL was derived for each classification. In the Actuarial Balance sheet, the total actuarial accrued liability for all future benefits must be equal to the current and future assets.

#### **Funding Adequacy**

A key consideration in determining the adequacy of the funding of SamCERA is how the UAAL is being funded. If the UAAL amount is positive, that is, the Actuarial Accrued Liability to be funded is greater than the Valuation Assets, then the UAAL is amortized. Under the current funding method, the June 30, 2008 UAAL is amortized over a fixed period ending June 30, 2023. Changes in the UAAL in years following June 30, 2008 are being amortized separately over new 15-year periods from the valuation date at which the difference is calculated, including the change in UAAL as of June 30, 2013.

## Analysis of Change in UAAL

The UAAL, at any date after establishment of a system, is affected by any actuarial gains or losses arising when the actual experience of the system varies from the experience anticipated by the actuarial assumptions used in the valuations. To the extent actual experience, as it develops, differs from that expected according to the assumptions used, so also will the emerging costs differ from the estimated costs.

The 2013 actuarial valuation reflects a decrease in the UAAL of \$8.2 million for the fiscal year just ended.

Unfunded Actuarial Accrued Liability - June 30, 2012	\$	962.3
Expected Increase / (Decrease) *		(34.6)
Expected UAAL - June 30, 2013	\$	927.7
Asset (Gains) and Losses Retiree COLA Less than Expected Salary Increases Less than Expected Assumption Changes Other Liability (Gain)/Loss		94.0 (8.6) (59.4) - 0.4
Total Changes	_	26.4
Actual UAAL - June 30, 2013	\$	954.1

<sup>\*</sup> Based on actual contribution.



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#### **Section 5: Member Contributions**



Basic Contributions (Plans 1-6)

For SamCERA members in Plans 1-6, contributions are of three types: Basic contributions, Cost Sharing contributions, and COLA Cost Sharing contributions. SamCERA members in Plan 7 pay contributions equal to one-half of the total Normal Cost rate for all members.

Contributions for each Plans 1-6 are defined in the following sections of the County Employees' Retirement Law:

	Code	Contribution Provides
Plan	Section	Average Annuity of
General Plans 1, 2 & 4	31621.9	1/120 <sup>th</sup> of FAC at age 55
General Plan 5	31621	1/120 <sup>th</sup> of FAC at age 60
Probation & Safety	31639.25	1/100 <sup>th</sup> of FAC at age 50

FAC = Final Average Compensation

There are no member contributions under General Plan 3.

Basic member contributions are determined using the Entry Age Normal Funding Method and the following actuarial assumptions:

- 1. Expected rate of return on assets
- 2. Individual salary increase rate (wage growth + merit)
- 3. Mortality for members based on service retirement
- 4. No COLAs are assumed

The basic member contribution rates were recalculated as of the June 30, 2012 valuation to reflect the investment return and wage growth assumptions adopted in the June 30, 2012 actuarial valuation. The rates are shown in Appendix D.

Cost-Sharing Contributions (Plans 1-5) In addition to the basic rate, Plan 1, 2 and 4 General employees (excluding San Mateo County Mosquito and Vector Control District employees [SMCM&VCD]), as well as Plan 5 Safety and Probation employees, make additional cost-sharing contributions as shown in Appendix B. Plan 6 employees do not participate in cost-sharing. For valuation purposes, cost-sharing contributions are assumed to be permanent. The cost-sharing contributions are fixed and not impacted by changes in assumptions.

# Cost-of-Living Contributions (Plans 1-6)

Members of the California Nurses Association, members of the Union of American Physicians and Dentists, and members of the Probation and Detention Association in Plans 1, 2, and 4 contribute 25% of the cost of COLA, in addition to all basic and cost-sharing rates applicable.

All members of General Plan 5 contribute 50% of the cost of COLA. Additionally, General members (Plans 1, 2 and 4) rehired on or after August 7, 2011 contribute 50% of the cost of COLA for their current Plan.

Members of Safety and Probation Plan 5 and 6 contribute 50% of the cost of COLA. Additionally, Probation members (Plans 1, 2 and 4) rehired on or after July 10, 2011 and Safety members (Plans 1, 2 and 4) rehired on or after January 8, 2012 contribute 50% of the cost of COLA for their current Plan.

Other current members do not contribute towards the COLA benefit.

COLA member rates are determined by calculating and applying a load factor to the basic member rates. COLA load factors are determined for each class and plan of member separately, as shown in the following table:

Plan	COLA Share	COLA Load
General 1 (County & Courts)*	50%	41.75%
General 2 (County & Courts)*	50%	32.79%
General 4 (County & Courts)*	50%	22.36%
General 1 (CNA and UAPD)	25%	20.87%
General 2 (CNA and UAPD)	25%	16.40%
General 4 (CNA and UAPD)	25%	11.18%
General 5	50%	21.30%
Safety 1*	50%	62.54%
Safety 2*	50%	50.00%
Safety 4*	50%	32.81%
Safety 5	50%	30.07%
Safety 6	50%	26.88%
Probation 1 (PDA)	25%	31.29%
Probation 2 (PDA)	25%	31.29%
Probation 4 (PDA)	25%	20.39%
Probation 1 (PDA)*	50%	62.57%
Probation 2 (PDA)*	50%	62.57%
Probation 4 (PDA)*	50%	40.78%
Probation 5 (PDA)	50%	37.02%
Probation 6 (PDA)	50%	33.36%

<sup>\*</sup> Only applicable in cases where member rehires or transfers (if eligible).

#### Example:

A member who enters General Plan 5 at age 35 has a basic member contribution rate of 6.14% (Exhibit D-1). The General Plan 5 COLA load is 21.30% for a member COLA contribution of 1.31% (6.14% x 21.30%) of pay. The basic plus COLA member contribution rate is 7.45% (6.14% + 1.31%).



Cost-of-Living Contributions (Plans 1-6) (continued) The COLA factor is determined as the present value of future normal cost contributions for the applicable plan COLA divided by the present value of future basic member contributions. This ratio is then multiplied by the applicable COLA share percentage (0%, 25% or 50%)

Member Contribution Rates – Pickup (Plans 1-6) Note that a portion of some of the member contribution rates is paid for ("picked up") by the employer and may or may not be considered part of the member's contribution account for refund purposes. Consistent with past practice, we have reflected the pickup for Probation members (excluding managers), but not other classes, due to the differing treatment of contributions for refund purposes.

Full disclosure of the member rates can be found in Appendix D.

Member Contribution Rates (Plan 7) Contributions for Plan 7 are defined in Section 7522.30 of the Government Code.

All employees of the same class who are members of Plan 7 shall contribute the same percentage of payroll. Such percentage will be 50% of the total Normal Cost rate for that class. Member contribution rates shall be adjusted when the normal cost expressed as a percentage of payroll, calculated at each valuation date increases or decreases by more than 1% of payroll above or below the rate then in effect. Member rates shall be rounded to the nearest 0.25% of payroll.

Effective July 1, 2014, Plan 7 member rates are as follows:

General members: 7.75%

Safety members: 14.25% (increased from 13.00%) Probation members: 13.75% (increased from 12.25%)



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### Section 6: Employer Contributions



Calculated
Contribution Rate

Contributions to SamCERA are determined using the Entry Age Normal Cost Funding Method. The portion of the actuarial present value of retirement benefits allocated to a valuation year by the Actuarial Cost Method is called the Normal Cost. These amounts are usually expressed as a percentage of payroll and called the Normal Cost Contribution Rate. Exhibits 10 through 10e illustrate the Normal Cost Rates by type of benefit and for each plan based on this valuation. A comparison with last year is also shown.

It should be noted that when we use the term "Gross Normal Cost rate," we are referring to the value of benefits earned by active members allocated to the valuation year. The Employer Normal Cost is the portion of the annual benefit that the employer is responsible for. This is simply the Gross Normal Cost rate less the contributions made by the members.

The total calculated employer contribution rates for each plan, along with a comparison to the prior year's computed rates, can be found in Exhibits 10 through 10e. These results are expressed as a percentage of payroll. Note that SamCERA's UAAL is determined separately for each class. Thus, the employer funds the UAAL evenly as a percentage of pay over salaries for all members within a class.

The total calculated employer contribution rate was 35.49% for the fiscal year beginning July 1, 2013. For the fiscal year beginning in 2014, the calculated rate based on this report increased to 37.47%. This is equal to the aggregate Employer Normal Cost contribution rate of 11.19% based on Milliman's 2013 valuation, plus appropriate amounts to amortize the UAAL according to the funding policy, over layered 15-year closed periods.

### **Employer Contribution Rate**

(all values as a % of Payroll)

Employer Normal Cost 11.19%
Total Amortization of UAAL 26.28%
Total Employer Contribution 37.47%



#### Calculated Contribution Rate (continued)

The UAAL rate reflects a layered 15-year amortization beginning with the June 30, 2008 valuation. Gains and losses after that date are reflected over new 15-year periods starting with the valuation date. A one-year deferral in the implementation of the new rate is reflected. Therefore, the new employer contribution rate calculated in the 2013 valuation is paid over the remaining 14 years and is effective July 1, 2014.

Exhibit 11 shows detailed information on how the contribution rate is calculated using the layered method.

Note that in the following exhibits "SMCM&VCD" refers to the San Mateo County Mosquito and Vector Control District.

#### Changes in the Normal Cost Rate

The change in the calculated Normal Cost contribution rates from year-to-year is generally due to two factors. The two factors are:

- 1. Experience: Normal experience from year-to-year, reflecting differences in both the weighting between membership groups and in their characteristics, as well as on what was assumed to occur during the past fiscal year and what actually occurred, particularly with respect to salary increases and turnover experience. Based on current system benefit provisions, the aggregate Normal Cost rate is expected to decrease as a greater number of members are covered by Plans 5, 6 and 7, instead of the more expensive previous plans. However, the change will be fairly gradual.
- 2. Contribution Shut-Off: For general members hired prior to March 7, 1973 and all Safety and Probation members, basic member contributions are not collected after the member has 30 years of service. Thereafter, the member contributions towards the total annual Normal Cost are equal to the cost sharing, resulting in a sizable increase in the employer's share of the Normal Cost contributions for the years when the member has more than 30 years of service. The employer's share of the Normal Cost rates for those groups can be expected to increase rather than remain level, as otherwise expected under the entry age cost method.

Exhibit 10: Calculated Employer Contribution Rates – June 30, 2013

			All P	lans				
					Emp	loyer Rates		
	Gross Normal Cost	Member Contributions	Basic Normal Cost	COLA Normal Cost	Total Normal Cost	UAAL Contribution Rate	Total Contribution Rate	Prior Year Total Contribution Rate
General Members								
County	19.59%	(9.85)%	6.19%	3.55%	9.74%	22.35%	32.09%	30.15%
Courts	19.59%	(9.85)%	6.19%	3.55%	9.74%	22.35%	32.09%	30.15%
CNA	19.59%	(10.67)%	5.67%	3.25%	8.92%	22.35%	31.27%	29.13%
UAPD	19.59%	(10.67)%	5.67%	3.25%	8.92%	22.35%	31.27%	29.13%
Total	19.59%	(9.98)%	6.11%	3.50%	9.61%	22.35%	31.96%	30.03%
SMCM&VCD Members								
Total	18.80%	(7.10)%	8.33%	3.37%	11.70%	22.35%	34.05%	31.85%
Safety Members								
Total	32.22%	(13.71)%	11.69%	6.82%	18.51%	50.33%	68.84%	67.56%
Probation Members								
PDA	30.48%	(12.15)%	11.89%	6.45%	18.33%	29.32%	47.65%	46.70%
Managers	30.48%	(12.63)%	11.58%	6.28%	17.85%	29.32%	47.17%	46.70%
Total	30.48%	(12.22)%	11.84%	6.42%	18.26%	29.32%	47.58%	46.70%
All Plans								

7.12%

4.06%

11.19%

26.28%

Total

37.47%

35.49%

21.74%

(10.55)%

Exhibit 10a: Calculated Normal Cost Contribution Rates – June 30, 2013

#### **All Plans**

		Normal Cost											
Plan	Service Retirement	Disability Retirement	Death while Active	Termination (No Refund)	Termination (Refund)	Total Gross Normal Cost							
General Plan 1	15.81%	1.29%	0.42%	2.04%	1.58%	21.14%							
General Plan 2	15.69%	1.26%	0.41%	1.79%	1.57%	20.72%							
General Plan 3	7.34%	0.00%	0.00%	0.49%	0.00%	7.83%							
General Plan 4	15.34%	1.27%	0.38%	1.55%	1.60%	20.14%							
General Plan 5	13.01%	1.28%	0.35%	1.19%	1.24%	17.07%							
General Plan 7	11.55%	1.21%	0.30%	0.86%	1.23%	15.15%							
General Total	14.92%	1.23%	0.37%	1.55%	1.52%	19.59%							
SMCM&VCD Plan 1	N/A	N/A	N/A	N/A	N/A	N/A							
SMCM&VCD Plan 2	21.34%	1.68%	0.64%	1.58%	1.23%	26.47%							
SMCM&VCD Plan 4	13.85%	1.13%	0.38%	1.54%	1.08%	17.98%							
SMCM&VCD Plan 7	N/A	N/A	N/A	N/A	N/A	N/A							
SMCM&VCD Total	14.57%	1.19%	0.40%	1.55%	1.09%	18.80%							
Safety Plan 1	32.93%	3.51%	1.51%	2.12%	1.01%	41.08%							
Safety Plan 2	26.38%	2.83%	1.38%	1.86%	0.68%	33.13%							
Safety Plan 4	25.40%	2.97%	1.17%	1.61%	0.75%	31.90%							
Safety Plan 5	25.66%	3.43%	1.16%	1.21%	0.99%	32.45%							
Safety Plan 6	26.05%	3.54%	1.11%	0.78%	0.77%	32.25%							
Safety Plan 7	22.12%	4.01%	1.01%	0.62%	0.80%	28.56%							
Safety Total	25.63%	3.00%	1.22%	1.62%	0.75%	32.22%							
Probation Plan 1	28.90%	1.81%	1.05%	1.45%	0.49%	33.70%							
Probation Plan 2	26.11%	2.77%	1.23%	1.87%	0.65%	32.63%							
Probation Plan 4	23.99%	2.55%	1.06%	1.70%	0.65%	29.95%							
Probation Plan 5	21.11%	2.50%	1.10%	1.28%	0.65%	26.64%							
Probation Plan 6	18.50%	2.54%	1.22%	1.26%	0.47%	23.99%							
Probation Plan 7	22.25%	3.13%	0.97%	0.55%	0.65%	27.55%							
Probation Total	24.40%	2.61%	1.10%	1.72%	0.65%	30.48%							



**All Plans** 

0.52%

1.56%

1.37%

21.74%

16.77%

1.52%

Exhibit 10b: Calculated Employer Contribution Rates – June 30, 2013

			Gen	eral Memb	ers			
	Gross Normal Cost	Member Contributions	Basic Normal Cost	COLA Normal Cost	Total Normal Cost	UAAL Contribution Rate	Total Contribution Rate	Prior Year Total Contribution Rate
Plan 1								
County	21.14%	(9.89)%	5.24%	6.01%	11.25%	22.35%	33.60%	30.92%
Courts	21.14%	(9.89)%	5.24%	6.01%	11.25%	22.35%	33.60%	30.92%
CNA	21.14%	(11.33)%	4.57%	5.24%	9.81%	22.35%	32.16%	29.49%
UAPD	21.14%	(11.33)%	4.57%	5.24%	9.81%	22.35%	32.16%	29.49%
Total	21.14%	(10.05)%	5.16%	5.93%	11.09%	22.35%	33.44%	30.79%
Plan 2								
County	20.72%	(10.20)%	5.65%	4.87%	10.52%	22.35%	32.87%	30.82%
Courts	20.72%	(10.20)%	5.65%	4.87%	10.52%	22.35%	32.87%	30.82%
CNA	20.72%	(11.37)%	5.02%	4.33%	9.35%	22.35%	31.70%	29.63%
UAPD	20.72%	(11.37)%	5.02%	4.33%	9.35%	22.35%	31.70%	29.63%
Total	20.72%	(10.37)%	5.56%	4.79%	10.35%	22.35%	32.70%	30.68%
Plan 3								
County	7.83%	0.00%	7.83%	0.00%	7.83%	22.35%	30.18%	28.11%
Courts	7.83%	0.00%	7.83%	0.00%	7.83%	22.35%	30.18%	28.11%
CNA	7.83%	0.00%	7.83%	0.00%	7.83%	22.35%	30.18%	28.11%
UAPD	7.83%	0.00%	7.83%	0.00%	7.83%	22.35%	30.18%	28.11%
Total	7.83%	0.00%	7.83%	0.00%	7.83%	22.35%	30.18%	28.11%
Plan 4								
County	20.14%	(10.41)%	6.37%	3.36%	9.73%	22.35%	32.08%	30.01%
Courts	20.14%	(10.41)%	6.37%	3.36%	9.73%	22.35%	32.08%	30.01%
CNA	20.14%	(11.23)%	5.84%	3.07%	8.91%	22.35%	31.26%	29.18%
UAPD	20.14%	(11.23)%	5.84%	3.07%	8.91%	22.35%	31.26%	29.18%
Total	20.14%	(10.54)%	6.29%	3.31%	9.60%	22.35%	31.95%	29.92%
Plan 5								
County	17.07%	(7.99)%	6.30%	2.78%	9.08%	22.35%	31.43%	29.52%
Courts	17.07%	(7.99)%	6.30%	2.78%	9.08%	22.35%	31.43%	29.52%
CNA	17.07%	(7.99)%	6.30%	2.78%	9.08%	22.35%	31.43%	29.52%
UAPD	17.07%	(7.99)%	6.30%	2.78%	9.08%	22.35%	31.43%	29.52%
Total	17.07%	(7.99)%	6.30%	2.78%	9.08%	22.35%	31.43%	29.52%
Plan 7								
County	15.15%	(7.75)%	4.95%	2.45%	7.40%	22.35%	29.75%	27.82%
Courts	15.15%	(7.75)%	4.95%	2.45%	7.40%	22.35%	29.75%	27.82%
CNA	15.15%	(7.75)%	4.95%	2.45%	7.40%	22.35%	29.75%	27.82%
UAPD	15.15%	(7.75)%	4.95%	2.45%	7.40%	22.35%	29.75%	27.82%
Total	15.15%	(7.75)%	4.95%	2.45%	7.40%	22.35%	29.75%	27.82%
All Plans								
County	19.59%	(9.85)%	6.19%	3.55%	9.74%	22.35%	32.09%	30.15%
Courts	19.59%	(9.85)%	6.19%	3.55%	9.74%	22.35%	32.09%	30.15%
CNA	19.59%	(10.67)%	5.67%	3.25%	8.92%	22.35%	31.27%	29.13%
UAPD	19.59%	(10.67)%	5.67%	3.25%	8.92%	22.35%	31.27%	29.13%
Total	19.59%	(9.98)%	6.11%	3.50%	9.61%	22.35%	31.96%	30.03%



### Exhibit 10c: Calculated Employer Contribution Rates – June 30, 2013

#### SMCM&VCD Members

					Em	ployer Rates		
	Gross Normal Cost	Member Contributions	Basic Normal Cost	COLA Normal Cost	Total Normal Cost	UAAL Contribution Rate	Total Contribution Rate	Prior Year Total Contribution Rate
Plan 1								
Total	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Plan 2								
Total	26.47%	(8.78)%	11.46%	6.23%	17.69%	22.35%	40.04%	37.87%
Plan 4								
Total	17.98%	(6.93)%	7.99%	3.06%	11.05%	22.35%	33.40%	31.07%
Plan 7								
Total	15.65%	(7.75)%	6.60%	1.30%	7.90%	22.35%	30.25%	28.07%
All Plans Total	18.80%	(7.10)%	8.33%	3.37%	11.70%	22.35%	34.05%	31.85%



Exhibit 10d: Calculated Employer Contribution Rates – June 30, 2013

			Sat	fety Membe	ers			
					Em	ployer Rates		
	Gross Normal Cost	Member Contributions	Basic Normal Cost	COLA Normal Cost	Total Normal Cost	UAAL Contribution Rate	Total Contribution Rate	Prior Year Total Contribution Rate
<u>Plan 1</u> Total	41.08%	(15.92)%	12.00%	13.16%	25.16%	50.33%	75.49%	75.20%
<u>Plan 2</u> Total	33.13%	(13.47)%	10.79%	8.87%	19.66%	50.33%	69.99%	68.59%
<u>Plan 4</u> Total	31.90%	(13.40)%	12.38%	6.12%	18.50%	50.33%	68.83%	67.16%
<u>Plan 5</u> Total	32.45%	(16.38)%	10.03%	6.04%	16.07%	50.33%	66.40%	64.99%
<u>Plan 6</u> Total	32.25%	(13.99)%	12.20%	6.06%	18.26%	50.33%	68.59%	64.49%
<u>Plan 7</u> Total	28.56%	(14.25)%	9.01%	5.30%	14.31%	50.33%	64.64%	61.73%
All Plans Total	32.22%	(13.71)%	11.69%	6.82%	18.51%	50.33%	68.84%	67.56%

Exhibit 10e: Calculated Employer Contribution Rates – June 30, 2013

Plan 1
Plan 1 PDA Members         33.70% (3.50)         (3.50)% (12.11)%         14.59% (13.50)%         15.61% (15.61)%         30.20% (21.59)%         29.32% (29.32%)         59.52% (59.52%)         56.63% (59.52%)           Plan 1 PDA Members         33.70% (3.50)%         (14.59%)         15.61% (11.60%)         30.20% (21.59%)         29.32% (29.32%)         59.52% (59.52%)         56.63% (59.52%)         56.63% (49.53%)         49.13% (49.43%)         49.13% (49.43%)
PDA Members         33.70%         (3.50)%         14.59%         15.61%         30.20%         29.32%         59.52%         56.52%           Managers         33.70%         (12.11)%         10.43%         11.16%         21.59%         29.32%         50.91%         56.52%           Total         33.70%         (3.50)%         14.59%         15.61%         30.20%         29.32%         59.52%         56.52%           PDA Members         32.63%         (12.77)%         11.26%         8.59%         19.86%         29.32%         49.18%         49.1           Managers         32.63%         (12.11)%         11.64%         8.88%         20.52%         29.32%         49.84%         49.1           Total         32.63%         (12.57)%         11.38%         8.68%         20.06%         29.32%         49.38%         49.1           PDA Members         29.95%         (11.97)%         12.17%         5.81%         17.98%         29.32%         47.30%         45.5           Managers         29.95%         (13.08)%         11.42%         5.45%         16.87%         29.32%         47.20%         45.5           Total         29.95%         (12.07)%         12.10%         5.78
Managers         33.70%         (12.11)%         10.43%         11.16%         21.59%         29.32%         50.91%         56.56           Total         33.70%         (3.50)%         14.59%         15.61%         30.20%         29.32%         59.52%         56.56           Plan 2         PDA Members         32.63%         (12.77)%         11.26%         8.59%         19.86%         29.32%         49.18%         49.1           Managers         32.63%         (12.11)%         11.64%         8.88%         20.52%         29.32%         49.84%         49.1           Total         32.63%         (12.57)%         11.38%         8.68%         20.06%         29.32%         49.38%         49.1           PDA Members         29.95%         (11.97)%         12.17%         5.81%         17.98%         29.32%         47.30%         45.5           Managers         29.95%         (13.08)%         11.42%         5.45%         16.87%         29.32%         47.20%         45.5           Total         29.95%         (12.07)%         12.10%         5.78%         17.88%         29.32%         47.20%         45.5           PDA Members         26.64%         (12.85)%         8.73%         <
Plan 2         Plan 2           PDA Members         32.63%         (12.77)%         11.26%         8.59%         19.86%         29.32%         49.18%         49.18           Managers         32.63%         (12.11)%         11.26%         8.88%         20.52%         29.32%         49.84%         49.1           Total         32.63%         (12.57)%         11.38%         8.68%         20.06%         29.32%         49.38%         49.1           PDA Members         29.95%         (11.97)%         12.17%         5.81%         17.98%         29.32%         47.30%         45.5           Managers         29.95%         (13.08)%         11.42%         5.45%         16.87%         29.32%         46.19%         45.5           Total         29.95%         (12.07)%         12.10%         5.78%         17.88%         29.32%         47.20%         45.5           PDA Members         26.64%         (12.85)%         8.73%         5.06%         13.79%         29.32%         43.11%         41.6           PDA Members         26.64%         (12.85)%         8.73%         5.06%         13.79%         29.32%         43.11%         41.6           Plan 6         PDA Members         23.99%
Plan 2           PDA Members         32.63%         (12.77)%         11.26%         8.59%         19.86%         29.32%         49.18%         49.18           Managers         32.63%         (12.11)%         11.64%         8.88%         20.52%         29.32%         49.84%         49.18           Total         32.63%         (12.57)%         11.38%         8.68%         20.06%         29.32%         49.38%         49.18           PDA Members         29.95%         (11.97)%         12.17%         5.81%         17.98%         29.32%         47.30%         45.5           Managers         29.95%         (13.08)%         11.42%         5.45%         16.87%         29.32%         47.20%         45.5           Total         29.95%         (12.07)%         12.10%         5.78%         17.88%         29.32%         47.20%         45.5           PDA Members         26.64%         (12.85)%         8.73%         5.06%         13.79%         29.32%         43.11%         41.6           Total         26.64%         (15.32)%         7.24%         4.08%         11.32%         29.32%         43.11%         41.6           Plan 6         PDA Members         23.99%         (9
PDA Members         32.63%         (12.77)%         11.26%         8.59%         19.86%         29.32%         49.18%         49.18%           Managers         32.63%         (12.11)%         11.64%         8.88%         20.52%         29.32%         49.84%         49.1           Total         32.63%         (12.57)%         11.38%         8.68%         20.06%         29.32%         49.38%         49.1           Plan 4         PDA Members         29.95%         (11.97)%         12.17%         5.81%         17.98%         29.32%         47.30%         45.5           Managers         29.95%         (13.08)%         11.42%         5.45%         16.87%         29.32%         46.19%         45.5           Total         29.95%         (12.07)%         12.10%         5.78%         17.88%         29.32%         47.20%         45.5           PDA Members         26.64%         (12.85)%         8.73%         5.06%         13.79%         29.32%         43.11%         41.6           Total         26.64%         (12.85)%         8.73%         5.06%         13.79%         29.32%         43.11%         41.6           Plan 6         PDA Members         23.99%         (9.27)%         <
Managers         32.63%         (12.11)%         11.64%         8.88%         20.52%         29.32%         49.84%         49.11           Total         32.63%         (12.57)%         11.38%         8.68%         20.06%         29.32%         49.38%         49.11           Plan 4         PDA Members         29.95%         (11.97)%         12.17%         5.81%         17.98%         29.32%         47.30%         45.8           Managers         29.95%         (13.08)%         11.42%         5.45%         16.87%         29.32%         46.19%         45.8           Total         29.95%         (12.07)%         12.10%         5.78%         17.88%         29.32%         47.20%         45.8           PDA Members         26.64%         (12.85)%         8.73%         5.06%         13.79%         29.32%         43.11%         41.6           Managers         26.64%         (15.32)%         7.24%         4.08%         11.32%         29.32%         43.11%         41.6           PDA Members         26.64%         (12.85)%         8.73%         5.06%         13.79%         29.32%         43.11%         41.6           PDA Members         23.99%         (9.27)%         10.10%
Total         32.63%         (12.57)%         11.38%         8.68%         20.06%         29.32%         49.38%         49.18           Plan 4         PDA Members         29.95%         (11.97)%         12.17%         5.81%         17.98%         29.32%         47.30%         45.9           Managers         29.95%         (13.08)%         11.42%         5.45%         16.87%         29.32%         46.19%         45.9           Total         29.95%         (12.07)%         12.10%         5.78%         17.88%         29.32%         47.20%         45.9           PDA Members         26.64%         (12.85)%         8.73%         5.06%         13.79%         29.32%         43.11%         41.6           Managers         26.64%         (15.32)%         7.24%         4.08%         11.32%         29.32%         40.64%         41.6           Total         26.64%         (12.85)%         8.73%         5.06%         13.79%         29.32%         43.11%         41.6           PDA Members         23.99%         (9.27)%         10.10%         4.62%         14.72%         29.32%         44.04%         42.7           Managers         23.99%         (11.87)%         8.35%         3.7
Plan 4         PDA Members       29.95%       (11.97)%       12.17%       5.81%       17.98%       29.32%       47.30%       45.9         Managers       29.95%       (13.08)%       11.42%       5.45%       16.87%       29.32%       46.19%       45.9         Total       29.95%       (12.07)%       12.10%       5.78%       17.88%       29.32%       47.20%       45.9         PDA Members       26.64%       (12.85)%       8.73%       5.06%       13.79%       29.32%       43.11%       41.6         Managers       26.64%       (15.32)%       7.24%       4.08%       11.32%       29.32%       40.64%       41.6         Total       26.64%       (12.85)%       8.73%       5.06%       13.79%       29.32%       43.11%       41.6         PDA Members       26.64%       (12.85)%       8.73%       5.06%       13.79%       29.32%       43.11%       41.6         PDA Members       23.99%       (9.27)%       10.10%       4.62%       14.72%       29.32%       44.04%       42.7         Managers       23.99%       (11.87)%       8.35%       3.77%       12.12%       29.32%       41.44%       42.7
PDA Members         29.95%         (11.97)%         12.17%         5.81%         17.98%         29.32%         47.30%         45.85%           Managers         29.95%         (13.08)%         11.42%         5.45%         16.87%         29.32%         46.19%         45.85%           Total         29.95%         (12.07)%         12.10%         5.78%         17.88%         29.32%         47.20%         45.85%           PDA Members         26.64%         (12.85)%         8.73%         5.06%         13.79%         29.32%         43.11%         41.66           Managers         26.64%         (15.32)%         7.24%         4.08%         11.32%         29.32%         43.11%         41.66           Potal         26.64%         (12.85)%         8.73%         5.06%         13.79%         29.32%         43.11%         41.66           PDA Members         23.99%         (9.27)%         10.10%         4.62%         14.72%         29.32%         44.04%         42.7           Managers         23.99%         (11.87)%         8.35%         3.77%         12.12%         29.32%         41.44%         42.7
Managers         29.95%         (13.08)%         11.42%         5.45%         16.87%         29.32%         46.19%         45.95           Total         29.95%         (12.07)%         12.10%         5.78%         17.88%         29.32%         47.20%         45.95           Plan 5           PDA Members         26.64%         (12.85)%         8.73%         5.06%         13.79%         29.32%         43.11%         41.66           Managers         26.64%         (15.32)%         7.24%         4.08%         11.32%         29.32%         40.64%         41.66           Total         26.64%         (12.85)%         8.73%         5.06%         13.79%         29.32%         43.11%         41.66           Plan 6         PDA Members         23.99%         (9.27)%         10.10%         4.62%         14.72%         29.32%         44.04%         42.7           Managers         23.99%         (11.87)%         8.35%         3.77%         12.12%         29.32%         41.44%         42.7
Total         29.95%         (12.07)%         12.10%         5.78%         17.88%         29.32%         47.20%         45.85           Plan 5           PDA Members         26.64%         (12.85)%         8.73%         5.06%         13.79%         29.32%         43.11%         41.66           Managers         26.64%         (15.32)%         7.24%         4.08%         11.32%         29.32%         40.64%         41.66           Total         26.64%         (12.85)%         8.73%         5.06%         13.79%         29.32%         43.11%         41.66           Plan 6         PDA Members         23.99%         (9.27)%         10.10%         4.62%         14.72%         29.32%         44.04%         42.7           Managers         23.99%         (11.87)%         8.35%         3.77%         12.12%         29.32%         41.44%         42.7
Plan 5         PDA Members       26.64%       (12.85)%       8.73%       5.06%       13.79%       29.32%       43.11%       41.66         Managers       26.64%       (15.32)%       7.24%       4.08%       11.32%       29.32%       40.64%       41.66         Total       26.64%       (12.85)%       8.73%       5.06%       13.79%       29.32%       43.11%       41.66         Plan 6         PDA Members       23.99%       (9.27)%       10.10%       4.62%       14.72%       29.32%       44.04%       42.7         Managers       23.99%       (11.87)%       8.35%       3.77%       12.12%       29.32%       41.44%       42.7
PDA Members         26.64%         (12.85)%         8.73%         5.06%         13.79%         29.32%         43.11%         41.6           Managers         26.64%         (15.32)%         7.24%         4.08%         11.32%         29.32%         40.64%         41.6           Total         26.64%         (12.85)%         8.73%         5.06%         13.79%         29.32%         43.11%         41.6           Plan 6         PDA Members         23.99%         (9.27)%         10.10%         4.62%         14.72%         29.32%         44.04%         42.7           Managers         23.99%         (11.87)%         8.35%         3.77%         12.12%         29.32%         41.44%         42.7
Managers       26.64%       (15.32)%       7.24%       4.08%       11.32%       29.32%       40.64%       41.66         Total       26.64%       (12.85)%       8.73%       5.06%       13.79%       29.32%       43.11%       41.66         Plan 6       PDA Members       23.99%       (9.27)%       10.10%       4.62%       14.72%       29.32%       44.04%       42.7         Managers       23.99%       (11.87)%       8.35%       3.77%       12.12%       29.32%       41.44%       42.7
Total         26.64%         (12.85)%         8.73%         5.06%         13.79%         29.32%         43.11%         41.62%           Plan 6         PDA Members         23.99%         (9.27)%         10.10%         4.62%         14.72%         29.32%         44.04%         42.7           Managers         23.99%         (11.87)%         8.35%         3.77%         12.12%         29.32%         41.44%         42.7
Plan 6       PDA Members     23.99%     (9.27)%     10.10%     4.62%     14.72%     29.32%     44.04%     42.7       Managers     23.99%     (11.87)%     8.35%     3.77%     12.12%     29.32%     41.44%     42.7
PDA Members 23.99% (9.27)% 10.10% 4.62% 14.72% 29.32% 44.04% 42.7 Managers 23.99% (11.87)% 8.35% 3.77% 12.12% 29.32% 41.44% 42.7
Managers 23.99% (11.87)% 8.35% 3.77% 12.12% 29.32% 41.44% 42.7
·
<b>Total</b> 23.99% (9.27)% 10.10% 4.62% 14.72% 29.32% 44.04% 42.7
<u>Plan 7</u>
PDA Members 27.55% (13.75)% 8.61% 5.19% 13.80% 29.32% 43.12% 39.0
Managers 27.55% (13.75)% 8.61% 5.19% 13.80% 29.32% 43.12% 39.0
<b>Total</b> 27.55% (13.75)% 8.61% 5.19% 13.80% 29.32% 43.12% 39.0
All Plans
PDA Members 30.48% (12.15)% 11.89% 6.45% 18.33% 29.32% 47.65% 46.7
Managers 30.48% (12.63)% 11.58% 6.28% 17.85% 29.32% 47.17% 46.7
<b>Total</b> 30.48% (12.22)% 11.84% 6.42% 18.26% 29.32% 47.58% 46.7

Exhibit 11: Supplemental Detail on UAAL Payments (Dollars in Thousands)

					Gene	ral					
Date Established	Description <sup>(4)</sup>	 lance as of ne 30, 2013	Interest on Balance		Amort. Payment on June 30, 2014 <sup>1</sup>		Balance as of June 30, 2014 <sup>2</sup>		Remaining Period as of June 30, 2014	Am	ly 1, 2014 ortization Payment
June 30, 2008	Initial UAAL	\$ 353,832	\$	26,537	\$	44,396	\$	335,973	9 Years	\$	43,677
June 30, 2009	(Gain) / Loss	\$ 341,105	\$	25,583	\$	39,561	\$	327,127	10 Years	\$	38,921
June 30, 2010	(Gain) / Loss	\$ (126,544)	\$	(9,491)	\$	(13,678)	\$	(122,357)	11 Years	\$	(13,456)
June 30, 2011	(Gain) / Loss	\$ (37,916)	\$	(2,844)	\$	(3,846)	\$	(36,914)	12 Years	\$	(3,784)
June 30, 2012	(Gain) / Loss	\$ 116,966	\$	8,772	\$	11,198	\$	114,541	13 Years	\$	11,016
June 30, 2013	(Gain) / Loss	\$ 15,423	\$	1,157	\$	(5,021) 3	\$	21,601	14 Years	\$	1,961
							Total	Amortization Pay	ment July 1, 2014:	\$	78,335
								Projected P	ayroll July 1, 2014:	\$	350,501
UAAL as	of June 30, 2013:	\$ 662,866	UAAL Contribution Rate (as a % of Payroll) FYB July 1, 2014:					22.35%			

					Safet	У					
Date Established	Description <sup>(4)</sup>	 ance as of ne 30, 2013	Interest on Balance		Amort. Payment on June 30, 2014 <sup>1</sup>		Balance as of June 30, 2014 <sup>2</sup>		Remaining Period as of June 30, 2014	July 1, 2014 Amortization Payment	
June 30, 2008	Initial UAAL	\$ 129,120	\$	9,684	\$	16,201	\$	122,603	9 Years	\$	15,938
June 30, 2009	(Gain) / Loss	\$ 125,097	\$	9,382	\$	14,509	\$	119,970	10 Years	\$	14,274
June 30, 2010	(Gain) / Loss	\$ (47,336)	\$	(3,550)	\$	(5,116)	\$	(45,770)	11 Years	\$	(5,033
June 30, 2011	(Gain) / Loss	\$ (17,585)	\$	(1,319)	\$	(1,783)	\$	(17,121)	12 Years	\$	(1,755
June 30, 2012	(Gain) / Loss	\$ 34,776	\$	2,608	\$	3,329	\$	34,055	13 Years	\$	3,275
June 30, 2013	(Gain) / Loss	\$ 5,764	\$	432	\$	(120) <sup>3</sup>	\$	6,316	14 Years	\$	573
							Total	Amortization Pay	ment July 1, 2014:	\$	27,273
								Projected P	ayroll July 1, 2014:	\$	54,192
UAAL as	of June 30, 2013:	\$ 229,836			UAAL (	Contribution Ra	ate (as	a % of Payroll)	FYB July 1, 2014:		50.33%

				Probati	ion					
Date Established	Description <sup>(4)</sup>	 ance as of e 30, 2013	erest on alance		Payment on 2014 1		ance as of e 30, 2014 <sup>2</sup>	Remaining Period as of June 30, 2014	Am	y 1, 2014 ortization ayment
June 30, 2008	Initial UAAL	\$ 32,350	\$ 2,426	\$	4,059	\$	30,718	9 Years	\$	3,993
June 30, 2009	(Gain) / Loss	\$ 31,486	\$ 2,361	\$	3,652	\$	30,195	10 Years	\$	3,593
June 30, 2010	(Gain) / Loss	\$ (11,553)	\$ (866)	\$	(1,248)	\$	(11,171)	11 Years	\$	(1,228)
June 30, 2011	(Gain) / Loss	\$ (4,034)	\$ (303)	\$	(409)	\$	(3,928)	12 Years	\$	(403)
June 30, 2012	(Gain) / Loss	\$ 11,727	\$ 880	\$	1,123	\$	11,484	13 Years	\$	1,105
June 30, 2013	(Gain) / Loss	\$ 1,433	\$ 107	\$	(72) <sup>3</sup>	\$	1,612	14 Years	\$	146
						Total /	Amortization Pay	yment July 1, 2014:	\$	7,206
							Projected P	Payroll July 1, 2014:	\$	24,578
UAAL as	of June 30, 2013:	\$ 61,409		UAAL (	Contribution Ra	ate (as	a % of Payroll)	FYB July 1, 2014:		29.32%

#### **Explanatory Notes:**



<sup>&</sup>lt;sup>1</sup> Amortization Payments are based on a fixed schedule that increases by the payroll assumption each year.

<sup>&</sup>lt;sup>2</sup> The calculation of assets and liabilities used in the calculation of UAAL are as of June 30, 2013; whereas, the contribution rates are not effective until July 1, 2014. Therefore, the UAAL is adjusted to June 30, 2014 in the calculation of contribution rates.

<sup>&</sup>lt;sup>3</sup> The 15-year amortization of UAAL does not begin until July 1, 2014; however, the UAAL amount is adjusted based on the July 1, 2013 contribution rate.

<sup>&</sup>lt;sup>4</sup> (Gain)/Loss includes new assumptions adopted effective June 30, 2011 based on the Investigation of Experience report, and new economic assumptions effective June 30, 2012.

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#### Information for Comprehensive Annual Financial Report (CAFR) Section 7:



The Governmental Accounting Standards Board (GASB) sets standards for defined benefit pension plan reporting and disclosures (Statement No. 25). The reporting requirements for Statement No. 25 include certain supplementary information that must be added to the financial statements. These include:

- 1. A Schedule of Funding Progress
- 2. A Schedule of Employer Contributions

The Schedule of Funding Progress, Exhibit 12, compares actuarial assets and liabilities of SamCERA, based on the actuarial funding method used. The required Schedule of Employer Contributions, Exhibit 13, compares the employer contributions required based on the actuarial valuation (the Actuarial Required Contribution, or ARC) with the employer contributions actually made. The ARC must be calculated based on certain parameters required for disclosure purposes.

We believe the actuarial methods and assumptions used in this valuation to determine the employer's contribution for funding purposes satisfy the GASB reporting requirements.

GASB Statement No. 27 specifies required reporting for pension accounting by state and local governmental employers.

The comparability of the data from year-to-year can be affected by changes in actuarial assumptions, benefit provisions. accounting policies, etc.

Exhibit 14 compares the Actuarial Value of Valuation Assets to the types of Actuarial Accrued Liabilities, applying them first to Active Member contributions, then to retirees and beneficiaries, and then the remaining amount to the active members' benefits. This is referred to as the Solvency Test. Although not required under GASB, this test is part of the CAFR guidelines specified by the Government Finance Officers Association (GFOA).

It should be noted that GASB recently adopted Statements 67 and 68 dealing with accounting disclosure for public retirement systems. These new standards will have a material impact on pension accounting. The effective date for GASB Statement No. 67 is for periods beginning after June 15, 2013 and the effective date for GASB Statement No. 68 is for periods beginning after June 15, 2014.



## CAFR (continued)

In addition to the exhibits mentioned above, the following supporting information is supplied for inclusion in SamCERA's CAFR:

- Exhibit 15 History of employer contribution rates.
- Exhibit 16 Actuarial analysis of financial experience.
- Exhibit 17 Summary of significant actuarial statistics and measurements.
- Exhibit 18 Summary of SamCERA membership. For more detailed information on the valuation data, see Appendix C.
- Exhibit 19 Summary of active member valuation data.
- Exhibit 20 Summary of demographic activity of retirees and beneficiaries.
- Exhibit 21 Average salary and active counts by employer.
- Exhibit 22 Summary of retired and inactive benefits.
- Exhibits 23a and 23b Summary of actuarial assumptions and cost method. For more detailed information, see Appendix A.



Exhibit 12: **Schedule of Funding Progress** (Dollars In Thousands)

Actuarial Valuation Date*			arial (b) ue Actuarial uation Accrued		(b-a) Unfunded Actuarial Accrued Liabilities (UAAL)		(a/b) Funded Ratio		Cove	(c) ered Payroll	[(b-a)/c] UAAL as a Percentage of Covered Payroll
June 30, 2004	\$	1,452,621	\$	1,921,328	\$	468,707	75	.6%	\$	365,385	128.28%
June 30, 2005		1,615,585		2,177,759		562,174	74	.2%		334,315	168.16%
June 30, 2006		1,769,021		2,345,149		576,128	75	.4%		368,972	156.14%
June 30, 2007		1,976,731		2,555,504		578,773	77	.4%		407,912	141.92%
June 30, 2008		2,218,937		2,806,222		587,285	79	.1%		416,243	141.09%
June 30, 2009		1,909,679		2,987,712		1,078,033	63	.9%		436,424	247.02%
June 30, 2010		2,179,076		3,098,453		919,377	70	.3%		428,559	214.53%
June 30, 2011		2,405,140		3,246,727		841,587	74	.1%		424,061	198.46%
June 30, 2012		2,480,271		3,442,553		926,282	72	.0%		419,779	229.24%
June 30, 2013		2,618,639		3,572,750		954,111	73	.3%		406,921	234.47%

<sup>\*</sup>Information for years prior to 2005 reported by prior actuaries.



Exhibit 13: Schedule of Contributions from the Employer (All Dollars In Thousands)

Fiscal Year Ending*	Annual Required Contribution (ARC)**	Actual Employer Contributions	Percentage of ARC Contributed
6/30/2004	60,042	60,042	100%
6/30/2005	76,931	76,931	100%
6/30/2006	76,090	76,090	100%
6/30/2007	100,550	100,550	100%
6/30/2008	105,340	105,340	100%
6/30/2009	106,123	106,123	100%
6/30/2010	106,265	106,265	100%
6/30/2011	150,475	150,475	100%
6/30/2012	150,950	150,950	100%
6/30/2013	144,308	144,308	100%

<sup>\*</sup> Information for years prior to 2005 reported by prior actuaries.

<sup>\*\*</sup> GASB Annual Required Contribution (ARC) is set equal to actual employer contribution when the actual employer contribution meets GASB ARC criteria.

Exhibit 14: **Solvency Test** (Dollars In Thousands)

Actuarial Accrued Liabilities for											
Actuarial Valuation		Active Member Retirees and Contributions Beneficiaries <sup>(2)</sup>		(E	ve Members Employer Financed Portion)	Portion of Actuarial Accrued Liabilities Covered by Assets					
Valuation Date <sup>(1)</sup>	Assets	(A)				(C)	(A)	(B)	(C)		
June 30, 2004	\$ 1,452,621	\$ 259,731	\$	942,765	\$	718,832	100%	100%	35%		
June 30, 2005	1,615,585	281,231		1,133,351		763,177	100%	100%	26%		
June 30, 2006	1,769,021	317,521		1,234,005		793,623	100%	100%	27%		
June 30, 2007	1,976,731	359,484		1,348,013		848,007	100%	100%	32%		
June 30, 2008	2,218,937	385,300		1,550,875		870,047	100%	100%	32%		
June 30, 2009	1,909,679	412,147		1,670,547		905,018	100%	90%	0%		
June 30, 2010	2,179,076	449,355		1,745,146		903,952	100%	99%	0%		
June 30, 2011	2,405,140	485,126		1,866,219		895,382	100%	100%	6%		
June 30, 2012	2,480,271	498,569		2,022,791		921,193	100%	98%	0%		
June 30, 2013	2,618,639	534,276		2,157,590		880,884	100%	97%	0%		

<sup>(1)</sup> Information for years prior to 2005 reported by prior actuaries.

<sup>(2)</sup> Includes deferred vested.

History of Calculated Employer Contribution Rates<sup>(4)</sup> Exhibit 15: (Dollars In Thousands)

	Employer Contribution Rates <sup>(1)(5)</sup>											
Valuation		eneral Member ounty & Courts	-	General Members (Nurses & UAPD) <sup>(3)</sup>			General Members (SMCM&VCD) <sup>(2)</sup>					
Year	Normal	UAAL	Total	Normal	UAAL	Total	Normal	UAAL	Total			
2004	9.76%	8.25%	18.01%	Same	as County Ge	eneral	Same as County General					
2005	10.36%	10.38%	20.74%	Same	as County Ge	eneral	Same as County General					
2006	10.49%	9.97%	20.46%	Same	as County Ge	eneral	Same	e as County G	eneral			
2007	10.19%	9.46%	19.65%	Same	as County Ge	eneral	8.50%	7.76%	16.26%			
2008	10.16%	9.81%	19.97%	Same	as County Ge	eneral	8.55%	8.04%	16.59%			
2009	10.11%	18.40%	28.51%	Same	as County Ge	eneral	8.25%	15.09%	23.34%			
2010	10.05%	16.35%	26.40%	Same	as County Ge	eneral	11.70%	16.35%	28.05%			
2011	9.71%	16.41%	26.12%	8.70%	8.70% 16.41% 25.11%			16.41%	28.38%			
2012	9.98%	20.17%	30.15%	8.96% 20.17% 29.13%			11.68%	20.17%	31.85%			
2013	9.74%	22.35%	32.09%	8.92%	22.35%	31.27%	11.70%	22.35%	34.05%			

	Employer Contribution Rates <sup>(1)(5)</sup>											
Valuation	s	afety Member			Probation Members (excluding Managers)			Probation Members (Managers)				
Year	Normal	UAAL	Total	Normal	UAAL	Total	Normal	UAAL	Total			
2004	15.34%	24.82%	40.16%	16.17%	15.28%	31.45%	Same as	Probation (ex l	Managers)			
2005	20.43%	32.02%	52.45%	21.10%	16.43%	37.53%	Same as	Probation (ex l	Managers)			
2006	20.18%	30.52%	50.70%	21.59%	14.85%	36.44%	Same as	Probation (ex I	Managers)			
2007	19.94%	29.32%	49.26%	20.83%	14.06%	34.89%	Same as	Probation (ex l	Managers)			
2008	19.32%	27.31%	46.63%	20.05%	12.81%	32.86%	Same as	Probation (ex l	Managers)			
2009	19.21%	51.83%	71.04%	19.92%	23.84%	43.76%	Same as	Probation (ex l	Managers)			
2010	19.01%	44.50%	63.51%	19.85%	21.62%	41.47%	Same as	Probation (ex l	Managers)			
2011	18.87%	41.75%	60.62%	19.50%	22.30%	41.80%	Same as	Probation (ex l	Managers)			
2012	19.05%	48.51%	67.56%	19.99%	26.71%	46.70%	Same as	Probation (ex l	Managers)			
2013	18.51%	50.33%	68.84%	18.33%	29.32%	47.65%	17.85%	29.32%	47.179			

<sup>(1)</sup> Information for years prior to 2005 reported by prior actuaries.



<sup>(2)</sup> Beginning with the 2010 actuarial valuation, the Mosquito and Vector Control District adopted the same benefit formula and member contribution rates as Plan 1, 2 & 4 General County members (excluding cost sharing on member rates).

<sup>(3)</sup> Beginning with the 2011 actuarial valuation, Plan 1, 2, and 4 members of the California Nurses Association contribute 25% of the cost of COLA, in addition to current member rates and cost sharing.

Beginning with the 2013 actuarial valuation, Plan 1, 2, and 4 members of the Union of American Physicians and Dentists contribute 25% of the cost of COLA, in addition to current member rates and cost sharing. In 2011 and 2012 these members contributed the same as County General

<sup>(4)</sup> Beginning with the 2012 actuarial valuation, Plan 1, 2, and 4 Probation members (excluding Managers) contribute 25% of the cost of COLA, in addition to current member rates and cost sharing.

<sup>(5)</sup> Contribution rates shown are those calculated in the corresponding actuarial valuation. In some cases, actual contributions were higher.

#### **Actuarial Analysis of Financial Experience** Exhibit 16:

Summary of (Gains) / Losses	Change In Liability									
		2013		2012		2011		2010		2009
Unfunded Liability as of July 1	\$	962,282,000	\$	841,587,000	\$	919,377,000	\$	1,078,033,000	\$	587,285,000
Expected Change in UAAL		(34,535,000)		(39,621,000)		(31,508,000)		27,388,000		(11,786,000)
Salary (Gain) / Loss		(59,411,000)		(45,526,000)		(51,831,000)		(43,598,000)		(10,081,000)
Fewer Withdrawals than expected		0		0		0		0		0
Retiree COLA more / (less) than expected		(8,606,000)		(11,756,000)		(27,561,000)		(41,258,000)		1,080,000
Asset (Gain) / Loss		93,999,000		171,268,000		12,548,000		(88,485,000)		522,444,000
Change due to Assumption Changes		0		36,443,000		19,402,000		0		0
Miscellaneous Experience		382,000		9,887,000		1,160,000		(12,703,000)		(10,909,000)
Change Due to New Formula										
Unfunded Liability as of June 30	\$	954,111,000	\$	962,282,000	\$	841,587,000	\$	919,377,000	\$	1,078,033,000

**Exhibit 17:** Summary of Significant Actuarial Statistics and Measures

			June	30th	of	Relative	
			2013		2012	Change	
	A.C. a Marchan						
I.	Active Members						
	Number of Members		4,917		5,095	(3.5)%	
	Average Age		46.0		46.0	-	
	Average Credited Service	Φ.	11.2	Φ.	10.9	2.8%	
	Total Active Payroll (\$thousands)	\$ \$	414,551	\$	427,650	(3.1)%	
	Average Monthly Salary	\$	7,026	\$	6,995	0.4%	
II.	Retired Members						
	Number of Members						
	Service Retirement		3,446		3,355	2.7 %	
	Disability Retirement		393		374	5.1 %	
	Beneficiaries		559		546	2.4 %	
	Average Age		71.3		71.2	0.1 %	
	Actual Retiree Benefits Paid (\$thousands)	\$	149,266	\$	139,208	7.2 %	
	Average Monthly Pension	\$	2,933	\$	2,823	3.9%	
III.	Number of Inactive Vested Members		1,306		1,212	7.8 %	
IV.	Assets						
	Market Value of Fund (\$thousands)	\$	2,727,825	\$	2,360,304	15.6%	
	Return on Market Value	•	13.6%	*	-0.4%		
		\$	2,618,639	\$	2,480,271	5.6%	
	Valuation Assets (\$thousands)	Φ		Φ		5.0%	
	Return on Valuation Assets		3.7%		0.7%		
V.	Liability Values (\$thousands)						
	Actuarial Accrued Liability	\$	3,572,750	\$	3,442,553	3.8%	
	Unfunded Actuarial Accrued Liability	\$	954,111	\$	962,282	(0.8)%	
	Deferred Asset (Gains) / Losses	\$	(109,186)	\$	119,966		
VI.	Funded Ratio						
	GASB 25 (based on valuation assets)		73.3%		72.0%	1.7%	

Exhibit 18: **Summary of SamCERA Membership** 

Plan	One	Two	Three	Four	Five	Six	Seven	Total
Retirees and beneficiaries curre	ntly receiving	benefits:						
General	1,848	1,572	114	284	-	_	-	3,818
Safety	284	140	-	20	-	-	-	444
Probation	72	51	-	13	-	_	-	136
Subotal	2,204	1,763	114	317	-	-	-	4,398
Terminated employees entitled t	o but not curr	ently receivi	ng benefits (D	eferred):				
General	21	417	108	647	5	-	1	1,199
Safety	1	29	-	42	-	-	-	72
Probation	-	11	-	23	-	1	-	35
Subotal	22	457	108	712	5	1	1	1,306
Current employees:								
Vested:								
General	39	936	73	2,216	1	-	1	3,266
Safety	3	102	-	219	-	_	-	324
Probation	1	64	-	208	-	-	-	273
Non-Vested:								
General	-	2	51	451	262	_	141	907
Safety	-	-	-	71	42	1	14	128
Probation	-	-	-	7	8	1	3	19
Subotal	43	1,104	124	3,172	313	2	159	4,917
Total SamCERA Membership	2,269	3,324	346	4,201	318	3	160	10,621



**Exhibit 19:** Summary of Active Member Valuation Data

Valua	tion Date	Members	Annual Salary	Average	% Change
				Annual Salary	Average Salary
2004	General	4,487	\$303,786,879	\$67,700	6.8%
	Safety	411	\$40,796,852	\$99,202	13.4%
	Probation	288	\$20,800,813	\$72,225	11.6%
	Total	5,186	\$365,384,544	\$70,448	6.8%
2005	General	4,411	\$304,289,437	\$68,984	1.8%
	Safety	409	\$39,999,593	\$97,799	-1.4%
	Probation	278	\$20,123,863	\$72,388	0.2%
	Total	5,098	\$364,412,893	\$71,482	1.4%
2006*	General	4,614	\$312,934,324	\$67,823	-1.7%
	Safety	428	\$41,407,772	\$96,747	-1.1%
	Probation	313	\$22,009,210	\$70,317	-1.6%
	Total	5,355	\$376,351,306	\$70,280	-1.7%
2007	General	4,767	\$346,319,017	\$72,649	7.1%
	Safety	443	\$45,386,411	\$102,452	5.9%
	Probation	329	\$24,364,268	\$74,056	5.3%
	Total	5,539	\$416,069,696	\$75,116	6.9%
2008	General	4,743	\$353,518,525	\$74,535	2.6%
	Safety	432	\$46,326,906	\$107,238	4.7%
	Probation	325	\$24,741,003	\$76,126	2.8%
	Total	5,500	\$424,586,434	\$77,198	2.8%
2009	General	4,777	\$370,760,830	\$77,614	4.1%
	Safety	436	\$48,120,081	\$110,367	2.9%
	Probation	330	\$26,270,802	\$79,608	4.6%
	Total	5,543	\$445,151,713	\$80,309	4.0%
2010	General	4,609	\$363,305,740	\$78,825	1.6%
	Safety	425	\$48,576,912	\$114,299	3.6%
	Probation	313	\$25,247,595	\$80,663	1.3%
	Total	5,347	\$437,130,248	\$81,752	1.8%
2011	General	4,494	\$355,876,715	\$79,189	0.5%
	Safety	446	\$52,073,940	\$116,758	2.2%
	Probation	305	\$24,591,392	\$80,628	0.0%
	Total	5,245	\$432,542,046	\$82,468	0.9%
2012	General	4,361	\$351,965,689	\$80,708	1.9%
	Safety	435	\$51,129,267	\$117,539	0.7%
	Probation	299	\$24,554,583	\$82,122	1.9%
	Total	5,095	\$427,649,539	\$83,935	1.8%
2013	General	4,173	\$338,595,633	\$81,140	0.5%
	Safety	452	\$52,233,510	\$115,561	-1.7%
	Probation	292	\$23,722,165	\$81,240	-1.1%
	Total	4,917	\$414,551,308	\$84,310	0.4%

<sup>\*</sup>Numbers prior to 2006 were reported on a different basis.



**Summary of Demographic Activity of Retirees and Beneficiaries** Exhibit 20:

		Add	ed to Rolls <sup>(1)</sup>	Remo	ved from Rolls	Rolls	s end of year		
Year Ended		No.	Annual Allowances in Thousands	No.	Annual Allowances in Thousands	No. <sup>(2)</sup>	Total Retiree Payroll in Thousands	% Increase in Payroll	Average Monthly Allowances
June 30, 2004		193	N/A	120	N/A	3,539	75,943	8.7	1,778
June 30, 2005		238	N/A	95	N/A	3,682	84,183	11.5	1,905
June 30, 2006		206	N/A	112	N/A	3,613	91,006	8.1	2,099
June 30, 2007		155	N/A	74	N/A	3,694	98,790	8.6	2,229
June 30, 2008		218	N/A	70	N/A	3,842	109,616	11.0	2,378
June 30, 2009		159	12,717	66	3,281	3,935	119,052	8.6	2,521
June 30, 2010		163	9,076	96	3,240	4,002	124,888	4.9	2,601
June 30, 2011	(3)	209	12,703	64	2,916	4,147	134,675	7.8	2,706
June 30, 2012		218	14,379	90	4,209	4,275	144,845	7.6	2,823
June 30, 2013		186	13,024	63	3,095	4,398	154,774	6.9	2,933

<sup>&</sup>lt;sup>(1)</sup> Amount added to rolls includes COLAs granted in year to continuing retirees and beneficiaries.



<sup>(2)</sup> For 6/30/2004 and 6/30/2005, retirees/beneficiaries who are entitled to multiple benefits are counted more than once. Starting 6/30/2006, the counts reflect only one benefit per retiree.

<sup>(3)</sup> Revised from June 30, 2011 valuation for corrections.

Exhibit 21: Average Salary and Active Counts by Employer

## Schedule of Average Monthly Salary of Active Members\* (By Plan and Membership Type)

	2013	2012	2011	2010	2009
General Plan 1	\$8,104	\$7,843	\$7,630	\$7,543	\$7,534
General Plan 2	\$7,355	\$7,340	\$7,208	\$7,193	\$7,120
General Plan 3	\$6,254	\$6,138	\$5,968	\$5,818	\$5,791
General Plan 4	\$6,662	\$6,580	\$6,398	\$6,348	\$6,212
General Plan 5	\$6,418	\$5,799	N/A	N/A	N/A
General Plan 7	\$5,433	N/A	N/A	N/A	N/A
General Plan Total	\$6,762	\$6,726	\$6,599	\$6,569	\$6,468
Safety Plan 1	\$13,185	\$12,624	\$12,073	\$11,578	\$10,889
Safety Plan 2	\$10,935	\$10,892	\$10,789	\$10,548	\$10,135
Safety Plan 4	\$9,402	\$9,351	\$9,230	\$8,931	\$8,610
Safety Plan 5	\$8,699	\$9,667	N/A	N/A	N/A
Safety Plan 6	\$12,374	N/A	N/A	N/A	N/A
Safety Plan 7	\$6,695	N/A	N/A	N/A	N/A
Safety Plan Total	\$9,630	\$9,795	\$9,730	\$9,525	\$9,197
Probation Plan 1	\$6,618	\$6,618	\$7,533	\$8,922	\$9,751
Probation Plan 2	\$7,445	\$7,454	\$7,349	\$7,393	\$7,341
Probation Plan 4	\$6,622	\$6,686	\$6,505	\$6,456	\$6,291
Probation Plan 5	\$5,242	\$4,949	N/A	N/A	N/A
Probation Plan 6	\$4,808	\$5,239	N/A	N/A	N/A
Probation Plan 7	\$7,742	\$5,239	N/A	N/A	N/A
Probation Plan Total	\$6,770	\$6,844	\$6,719	\$6,722	\$6,634
Grand Total	\$7,026	\$6,995	\$6,872	\$6,813	\$6,692

<sup>\*</sup> Numbers prior to 2006 were reported on a different basis.

#### **Participating Employers and Active Members**

	2013	2012	2011	2010	2009
County of San Mateo*					
General Members	3,906	4,078	4,476	4,589	4,758
Safety Members	452	435	446	425	436
Probation Members	292	299	305	313	330
Total	4,650	4,812	5,227	5,327	5,524
Mosquito and Vector					
General Members Total	18	15	18	20	19
Courts*					
General Members Total	249	268	N/A	N/A	N/A
Total Active Membership	4,917	5,095	5,245	5,347	5,543

<sup>\*</sup> Courts not split out for years prior to 2012. County of San Mateo counts exclude Courts in 2012.



**Exhibit 22:** Summary of Retired and Inactive Benefits

Retired Members	2013	2012	2011	2010	2009
Service Retirement					
Number Annual Allowance	3,446	3,355	3,242	3,108	3,032
Basic Only	\$ 100,411,000	\$ 94,234,000	\$ 87,254,000	\$ 79,007,000	\$ 73,038,000
COLA	\$ 26,594,000	\$ 24,748,000	\$ 23,212,000	\$ 22,542,000	\$ 22,964,000
Total	\$ 127,005,000	\$ 118,982,000	\$ 110,466,000	\$ 101,549,000	\$ 96,002,000
Average Monthly Payment	\$ 3,071	\$ 2,955	\$ 2,839	\$ 2,723	\$ 2,639
Disability Retirement					
Number	393	374	370	365	369
Annual Allowance					
Basic Only	\$ 10,733,000	\$ 9,909,000	\$ 9,414,000	\$ 8,988,000	\$ 8,722,000
COLA	\$ 3,564,000	\$ 3,225,000	\$ 3,005,000	\$ 2,926,000	\$ 3,070,000
Total	\$ 14,297,000	\$ 13,134,000	\$ 12,419,000	\$ 11,914,000	\$ 11,792,000
Average Monthly Payment	\$ 3,032	\$ 2,927	\$ 2,797	\$ 2,720	\$ 2,663
Beneficiaries					
Number	559	546	535	529	534
Annual Allowance					
Basic Only	\$ 7,668,000	\$ 7,235,000	\$ 6,672,000	\$ 6,309,000	\$ 6,052,000
COLA	\$ 5,804,000	\$ 5,494,000	\$ 5,118,000	\$ 5,116,000	\$ 5,206,000
Total	\$ 13,472,000	\$ 12,729,000	\$ 11,790,000	\$ 11,425,000	\$ 11,258,000
Average Monthly Payment	\$ 2,008	\$ 1,943	\$ 1,836	\$ 1,800	\$ 1,757
Total Retired Members					
Number Annual Allowance	4,398	4,275	4,147	4,002	3,935
Basic Only	\$ 118,812,000	\$ 111,378,000	\$ 103,340,000	\$ 94,304,000	\$ 87,812,000
COLA	\$ 35,962,000	\$ 33,467,000	\$ 31,335,000	\$ 30,584,000	\$ 31,240,000
Total	\$ 154,774,000	\$ 144,845,000	\$ 134,675,000	\$ 124,888,000	\$ 119,052,000
Average Monthly Payment	\$ 2,933	\$ 2,823	\$ 2,706	\$ 2,601	\$ 2,521
Inactive Members	1,306	1,212	1,190	1,207	1,230

The data in the table above originates from PensionGold, SamCERA's retirement benefit administration system.



#### Exhibit 23a: Summary of Assumptions

#### **Assumptions & Methods for Most Recent Actuarial Valuation**

**Actuarial Methods** 

Valuation Date June 30, 2013
Actuarial Cost Method Entry Age

Amortization Method Level Percent of Payroll

Remaining Amortization Period Original UAAL as of June 30, 2008 is

amortized over 15 years as of the valuation date. Future actuarial gains and losses are

amortized over new 15-year periods (including the change in UAAL as of June 30, 2013). This is referred to as 15-year

layered amortization.

Asset Valuation Method 5-year smoothed market with 20% corridor

**Actuarial Assumptions** 

Rate of Investment Return 7.50%
Price Inflation (CPI) 3.25%
Payroll Increases 3.75%
Average Projected Salary Increases 4.95%

Attributable to Wage Inflation 3.75%

Attributable to Merit and Longevity 1.20% (actual rates vary by service)

Sample Rates of Separation Shown on following page Additional Assumptions Shown in Appendix A



### Exhibit 23b: Summary of Assumptions

### **Probability of Separation During Active Service**

Years of	Other Terminations		1	Disability		Death while Active		Service
Service	Ordinary	Vested	Age	Ordinary	Service	Ordinary	Service	Retirement
General Plan	1, 2, 4, 5 & 7 N	lale Members						
0	0.1300	0.0000	20	0.0002	0.0004	0.0003	0.0000	0.0000
5	0.0285	0.0348	30	0.0003	0.0004	0.0004	0.0000	0.0000
10	0.0172	0.0238	40	0.0006	0.0010	0.0009	0.0000	0.0000
15	0.0099	0.0191	50	0.0010	0.0016	0.0017	0.0000	0.0500
20	0.0040	0.0150	60	0.0015	0.0022	0.0036	0.0000	0.1500
30 & Above	0.0000	0.0000	70	0.0000	0.0000	0.0000	0.0000	1.0000
		emale Members	70	0.0000	0.0000	0.0000	0.0000	1.0000
0	0.1200	0.0000	20	0.0002	0.0003	0.0002	0.0000	0.0000
5	0.0285	0.0348	30	0.0002	0.0003	0.0002	0.0000	0.0000
10	0.0263	0.0348	40	0.0002	0.0004	0.0002	0.0000	0.0000
	0.0155			0.0004				
15		0.0172	50		0.0017	0.0013	0.0000	0.0400
20	0.0040	0.0150	60	0.0019	0.0029	0.0030	0.0000	0.1500
30 & Above	0.0000	0.0000	70	0.0000	0.0000	0.0000	0.0000	1.0000
	3 Male Membe		20	0.0000	0.0000	0.0000	0.0000	0.0000
0	0.1300	0.0000	20	0.0000	0.0000	0.0003	0.0000	0.0000
5	0.0285	0.0348	30	0.0000	0.0000	0.0004	0.0000	0.0000
10	0.0172	0.0238	40	0.0000	0.0000	0.0009	0.0000	0.0000
15	0.0099	0.0191	50	0.0000	0.0000	0.0017	0.0000	0.0000
20	0.0040	0.0150	60	0.0000	0.0000	0.0036	0.0000	0.0300
30 & Above	0.0000	0.0000	70	0.0000	0.0000	0.0000	0.0000	1.0000
	3 Female Mem							
0	0.1200	0.0000	20	0.0000	0.0000	0.0002	0.0000	0.0000
5	0.0285	0.0348	30	0.0000	0.0000	0.0002	0.0000	0.0000
10	0.0153	0.0212	40	0.0000	0.0000	0.0006	0.0000	0.0000
15	0.0088	0.0172	50	0.0000	0.0000	0.0013	0.0000	0.0000
20	0.0040	0.0150	60	0.0000	0.0000	0.0030	0.0000	0.0400
30 & Above	0.0000	0.0000	70	0.0000	0.0000	0.0000	0.0000	1.0000
		l, 2, 4, 5 & 7 Male N						
0	0.0700	0.0000	20	0.0000	0.0015	0.0003	0.0010	0.0000
5	0.0082	0.0151	30	0.0000	0.0018	0.0004	0.0010	0.0000
10	0.0050	0.0105	40	0.0000	0.0028	0.0009	0.0010	0.0000
15	0.0016	0.0094	50	0.0000	0.0044	0.0017	0.0010	0.1500
20 & Above	0.0000	0.0000	60	0.0000	0.0000	0.0036	0.0010	1.0000
			70	0.0000	0.0000	0.0000	0.0000	1.0000
Safety and Pr	obation Plan 1	I, 2, 4, 5 & 7 Femal	e Members					
0	0.0700	0.0000	20	0.0000	0.0015	0.0002	0.0010	0.0000
5	0.0082	0.0151	30	0.0000	0.0018	0.0003	0.0010	0.0000
10	0.0050	0.0105	40	0.0000	0.0028	0.0007	0.0010	0.0000
15	0.0016	0.0094	50	0.0000	0.0044	0.0017	0.0010	0.1500
20 & Above	0.0000	0.0000	60	0.0000	0.0000	0.0039	0.0010	1.0000
			70	0.0000	0.0000	0.0000	0.0000	1.0000
Safety and Pr	obation Plan 6	Male Members						
0	0.0700	0.0000	20	0.0000	0.0015	0.0003	0.0010	0.0000
5	0.0082	0.0151	30	0.0000	0.0018	0.0004	0.0010	0.0000
10	0.0050	0.0105	40	0.0000	0.0028	0.0009	0.0010	0.0000
15	0.0016	0.0094	50	0.0000	0.0044	0.0017	0.0010	0.0500
20 & Above	0.0000	0.0000	60	0.0000	0.0000	0.0036	0.0010	1.0000
			70	0.0000	0.0000	0.0000	0.0000	1.0000
Safety and Probation Plan 6 Female Members								
0	0.0700	0.0000	20	0.0000	0.0015	0.0002	0.0010	0.0000
5	0.0082	0.0151	30	0.0000	0.0018	0.0003	0.0010	0.0000
10	0.0050	0.0105	40	0.0000	0.0028	0.0007	0.0010	0.0000
15	0.0016	0.0094	50	0.0000	0.0044	0.0017	0.0010	0.0500
20 & Above	0.0000	0.0000	60	0.0000	0.0000	0.0039	0.0010	1.0000
			70	0.0000	0.0000	0.0000	0.0000	1.0000



#### Appendix A: Actuarial Procedures and Assumptions



The actuarial procedures and assumptions used in the valuation are described in this section. The demographic assumptions were reviewed and changed as a result of the 2011 Investigation of Experience Study. New economic assumptions were adopted for use in the 2012 actuarial valuation.

The actuarial assumptions used in the valuations are intended to estimate the future experience of the members of SamCERA and of SamCERA itself in areas that affect the projected benefit flow and anticipated investment earnings. Any variations in future experience from that expected from these assumptions will result in corresponding changes in the estimated costs of SamCERA's benefits.

Table A-1 summarizes the assumptions. The mortality rates are taken from the sources listed.

Tables A-2 and A-3 show how members are expected to leave retired status due to death.

Table A-4 presents the probability of refund of contributions upon termination of employment while vested.

Table A-5 presents the expected annual percentage increase in salaries.

Tables A-6 to A-11 present the probabilities a member will leave the system for various reasons.

NOTE: Assumptions for Probation members are assumed to be the same as Safety members unless otherwise noted.



### Actuarial Cost Method

The actuarial valuation is prepared using the entry age actuarial cost method (CERL 31453.5). Under the principles of this method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated as a level percentage of the individual's projected compensation between entry age and assumed exit (until maximum retirement age).

For members who transferred from Plan 3 to another General plan, entry age is based on the transfer date.

The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the sum of (a) the actuarial value of the assets, and (b) the actuarial present value of future normal costs is called the Unfunded Actuarial Accrued Liability (UAAL). The UAAL as of June 30, 2008 is amortized as a level percentage of the projected salaries of present and future members of SamCERA over the remaining period from the valuation date to June 30, 2023. This is commonly referred to as a "closed amortization method". Actuarial gains and losses after the June 30, 2008 valuation are amortized over new closed 15-year periods from their respective valuation dates.

Beginning with the June 30, 2010 actuarial valuation, the San Mateo County Mosquito and Vector Control District adopted the same "enhanced" benefit formula that applies to Plan 1, 2 & 4 County General members and the same member rates currently being paid by County General members from those plans. However, because the Mosquito and Vector Control District does not participate in cost sharing on the member rates, it will have a separate normal cost rate and expected member contribution rate from the County General group.

The normal cost rate is calculated separately for County General and for the Mosquito and Vector Control District. These normal cost rates will differ from each other for two reasons:

- 1) The demographics within the two groups will vary (specifically, the groups will have different average entry ages), and
- 2) The expected refund of contributions, which is a component of the normal cost, will differ between the County and the Mosquito and Vector Control District, since the District does not participate in cost sharing on the member rates.



#### **Records and Data**

The data used in this valuation consist of financial information and the age, service, and income records for active and inactive members and their survivors. All of the data were supplied by SamCERA and are accepted for valuation purposes without audit.

#### Replacement of Terminated Members

The ages and relative salaries at entry of future members are assumed to follow a new entrant distribution based on the pattern of current members. Under this assumption, the normal cost rates for active members will remain fairly stable in future years unless there are changes in the governing law, the actuarial assumptions or the pattern of the new entrants.

## Growth in Membership

For benefit determination purposes, no growth in the membership of SamCERA is assumed. For funding purposes, if amortization is required, the total payroll of covered members is assumed to grow due to the combined effects of future wage increases of current active members and the replacement of the current active members by new employees. No growth in the total number of active members is assumed.

#### Internal Revenue Code Section 415 Limit

The Internal Revenue Code Section 415 maximum benefit limitations are not reflected in the valuation for funding purposes. Any limitation is reflected in a member's benefit after retirement.

### Internal Revenue Code Section 401(a)(17)

The Internal Revenue Code Section 401(a)(17) maximum compensation limitation is not reflected in the valuation for funding purposes. Any limitation is reflected in a member's benefit after retirement.

## **Employer Contributions**

The employer contribution rate is set by the Retirement Board based on actuarial valuations.

#### Member Contributions

The member contribution rates vary by entry age and are described in the law. Code references are shown in Appendix B of the valuation report. The methods and assumptions used are detailed later in this section.

The individual member rates by entry age, plan and class are illustrated in Appendix D of the valuation report.

#### Valuation of Assets

The assets are valued using a five-year smoothed method based on the difference between the expected market value and the actual market value of the assets as of the valuation date. The expected market value is the prior year's market value increased with the net increase in the cash flow of funds, all increased with interest during the past fiscal year at the expected investment return rate assumption.



## Investment Earnings and Expenses

The future investment earnings of the assets of SamCERA are assumed to accrue at an annual rate of 7.50% compounded annually, net of both investment and administrative expenses. This rate was adopted effective June 30, 2012.

#### Postretirement Benefit Increases

Postretirement increases are described in Appendix B. Assumed increases for valuation purposes are:

	General	Safety	Probation
Plan 1	3.25%	3.25%	2.90%
Plan 2	2.65%	2.65%	2.65%
Plan 3	0.00%	N/A	N/A
Plans 4, 5 & 7	1.90%	1.90%	1.90%
Plan 6	N/A	1.90%	1.90%

Assumed Plan 1 General and Safety COLAs are set at the inflation (CPI) assumption of 3.25% per year. Since Plan 2 does not have a COLA bank, it is expected that increases will be limited in some years. This reduces the overall expected rate and is reflected in a lower assumed increase.

### Interest on Member Contributions

The annual credited interest rate on member contributions is assumed to be 7.50% compounded semi-annually for an annualized rate of 7.64%. This rate was adopted effective June 30, 2012 for valuation purposes, although the change in member crediting was not effective until July 1, 2013.

#### **Future Salaries**

The rates of annual salary increase assumed for the purpose of the valuation are illustrated in Table A-5. In addition to increases in salary due to promotions and longevity, this scale includes an assumed 3.75% per annum rate of increase in the general wage level of the membership.

Increases are assumed to occur mid-year. The mid-year timing reflects that salary increases occur throughout the year, or on average mid-year.

SamCERA supplied two types of compensation data:

1) pensionable pay from the most recent bi-weekly pay period; and 2) pensionable pay from the prior year. We annualized by bi-weekly pay (by multiplying by 26) and then used the greater of the two amounts.

### Social Security Wage Base

Plan 3 members have their benefits offset by an assumed Social Security Benefit. For valuation funding purposes, we need to project the Social Security Benefit. We assume the current Social Security provisions will continue and the annual Wage Base will increase at the rate of 3.25% per year. Note, statutory provisions describe how to compute a member's offset amount at time of termination or retirement.



#### Retirement

The retirement rates vary by age and are shown by plan in Tables A-6 through A-11.

All General members who attain or who have attained age 70 and all Safety members who have attained age 60 are assumed to retire immediately. Additionally, if a member's benefit is equal to or greater than the 100% of compensation limit, they are also assumed to retire immediately. For purposes of the valuation, immediate retirement is assumed at:

- Age 62 with 38 years of service (General, except Plan 3 and Plan 7)
- Age 67 with 40 years of service (General Plan 7)
- Any age with 33 years of service (Safety & Probation, except Plans 5 and 6)
- Age 55 with 33 years of service (Safety & Probation Plan 5)
- Age 55 with 38 years of service (Safety & Probation Plan 6)
- Age 57 with 38 years of service (Safety & Probation Plan 7)

Deferred vested members are assumed to retire at the later of current age and:

- Age 55 (General Members, except Plan 3 and Plan 7)
- Age 65 (General Plan 3 Members)
- Age 62 (General Plan 7 Members)
- Age 50 (Probation and Safety members)

The retirement rates were adopted June 30, 2011.

#### Disablement

The rates of disablement used in the valuation are also illustrated in Tables A-6 through A-11.

The disability rates were adopted June 30, 2011.

#### Mortality – Other Than Disabled Members

The same postretirement mortality rates are used in the valuation for active members, members retired for service, and beneficiaries. These rates are illustrated in Table A-2. Beneficiary mortality is assumed to be the same as for healthy members. Beneficiaries are assumed to be of the opposite sex, and have the same mortality as General members.

General Males RP-2000 Healthy Combined Mortality Table

for Males with adjustment for White Collar workers. Ages are set back three years.

Safety Males Same as General.

General Females RP-2000 Healthy Combined Mortality Table

for Females with adjustment for White Collar workers. Ages are set back three years.

Safety Females Same as General.

The rates of retired mortality were adopted June 30, 2011.



#### Mortality – Disabled Members

For disabled members, the mortality rates used in the valuation are illustrated in Table A-3.

Mortality Table for Males with adjustment for White Collar workers and the RP-2000 Disabled Annuitant Mortality Table for Males,

both set back three years.

Safety Males RP-2000 Healthy Combined Mortality Table

for Males with adjustment for White Collar

workers (minimum is 1.0%).

General Females Average of RP-2000 Healthy Combined

Mortality Table for Females with adjustment for White Collar workers and the RP-2000 Disabled Annuitant Mortality Table for Females, both set back three years.

Safety Females RP-2000 Healthy Combined Mortality Table

for Females with adjustment for White Collar

workers (minimum is 1.0%).

The rates of mortality were adopted June 30, 2011.

### Other Employment Terminations

Tables A-6 to A-11 show, for all ages, the rates assumed in this valuation for future termination from active service other than for death, disability or retirement. These rates do not apply to members eligible for service retirement.

Terminating employees may withdraw their contributions immediately upon termination of employment and forfeit the right to further benefits, or they may leave their contributions with SamCERA. Former contributing members whose contributions are on deposit may later elect to receive a refund, may return to work or may remain inactive until becoming eligible to receive a retirement benefit under either SamCERA or a reciprocal retirement system. All terminating members who are not eligible for vested benefits are assumed to withdraw their contributions immediately.

The rates of termination were adopted June 30, 2011.

#### **Probability of Refund**

Table A-4 gives the assumed probabilities that vested members will withdraw their contributions and elect a refund immediately upon termination and the probability the remaining members will elect a deferred vested benefit. For Plan 3, 100% of members are assumed to elect a vested benefit. All non-vested members are assumed to elect a refund and withdraw their contributions.

The probability of refund assumptions were adopted June 30, 2011.



### Probability of Eligible Survivor

For members not currently in pay status, 80% of all males and 55% of all females are assumed to have eligible survivors (spouses or qualified domestic partners). Survivors are assumed to be three years younger than male members and three years older than female members. Survivors are assumed to be of the opposite sex as the member. There is no explicit assumption for children's benefits. We believe the survivor benefits based on this assumption are sufficient to cover children's benefits as they occur.

### Valuation of Current Deferred Members

Current non-vested members who have terminated active employment are assumed to take a refund of their contributions.

Current vested members who have terminated active employment are assumed to keep their accounts with SamCERA and retire as specified in this section. An adjustment is made to the salary data provided for these individuals, as it is our understanding that the salary data may not be complete in many cases. The adjustment is based on the average pay for all members of the active group divided by average pay for the deferred group. The average pay for the active group is based on the average pay over the last five-year period using the information supplied in the CAFR.

#### **Reciprocal Benefits**

35% of future deferred vested General members and 45% of future deferred vested Safety members are assumed to immediately join a reciprocal agency. For future reciprocal members, salaries are assumed to increase at the same rate as if they had remained in active employment with SamCERA. For current deferred vested members, eligibility is based on the data supplied by SamCERA and future salaries are assumed to increase at 4.27% annually.

#### Part-Time Employees

For valuation purposes, part-time employees are assumed to continue working the same number of hours in the future.

### Member Contribution Rate Assumptions

The following assumptions summarize the procedures used to compute member contribution rates based on entry age:

In general, the member rate is determined by the present value of the future benefit (PVFB) payable at retirement age, divided by the present value of all future salaries payable between age at entry and retirement age. For these purposes, per the CERL:

A. The annuity factor used for General members is based on a 33% / 67% blend of the male and female annuity factors using current valuation assumptions and no COLA. For Safety members it is based on an 83% / 17% blend of the male and female annuity factors using current valuation assumptions.

#### Member Contribution Rate Assumptions (continued)

- B. The annuity factor used in determining the present value of future benefits (PVFB) at entry age is equal to the life only annuity factor at 7.50%.
- C. The Final Compensation is based on the salary paid in the year prior to attaining the retirement age.

Example: For a Plan 4 Member who enters at age 54 or earlier, the Final Compensation at retirement (age 55) will be the monthly average of the annual salary for age 54.

- D. For purposes of calculating the value of the member's future contribution, interest is assumed to be credited at 7.50% semiannually (7.64% annual rate).
- E. Member Rates are assumed to increase with entry age, except in Plan 7. There are a few exceptions at the higher entry ages where the calculated rate is less than the previous entry age. In these cases the member contribution rate is adjusted so that it is no less than the value for the previous entry age.
- F. Member Rates for members of the California Nurses Association, members of the Union of American Physicians and Dentists and members of the Probation and Detention Association in Plans 1, 2, and 4 are loaded to account for a 25% COLA share. The COLA loads are applied to the otherwise applicable basic member rates, prior to the addition of cost-sharing. The loads were determined based on 2012 information and were applied as follows:

Plan 1 General members: 20.87% load Plan 2 General members: 16.40% load Plan 4 General members: 11.18% load

Plan 1 Probation members: 31.29% load Plan 2 Probation members: 31.29% load Plan 4 Probation members: 20.39% load

G. General members rehired on or after August 7, 2011, Safety members rehired on or after January 8, 2012 and Probation members rehired on or after July 10, 2011 in Plans 1, 2, and 4 are loaded to account for a 50% COLA share. The COLA loads are applied to the otherwise applicable basic member rates, prior to the addition of cost-sharing. The loads were determined based on 2012 information and were applied as follows:

Plan 1 General members: 41.75% load Plan 2 General members: 32.79% load Plan 4 General members: 22.36% load



### Appendix A (continued)

Member Contribution Rate Assumptions (continued) Plan 1 Safety members: 62.54% load Plan 2 Safety members: 50.00% load Plan 4 Safety members: 32.81% load

Plan 1 Probation members: 62.57% load Plan 2 Probation members: 62.57% load Plan 4 Probation members: 40.78% load

H. Member rates for members in Plans 5 and 6 are loaded to account for 50% COLA share. The COLA loads are applied to the otherwise applicable basic member rates, prior to the addition of cost-sharing where applicable. The loads were determined based on 2012 information and were applied as follows:

Plan 5 General members: 21.30% load

Plan 5 Probation members: 37.02% load Plan 6 Probation members: 33.36% load

Plan 5 Safety members: 30.07% load Plan 6 Safety members: 26.88% load



#### Table A-1: Summary of Valuation Assumptions as of June 30, 2013

I. Economic assumptions
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A.	General wage increases	3.75%
B.	Investment earnings	7.50%
C.	Growth in active membership	0.00%
D.	CPI inflation assumption	3.25%

#### II. Demographic assumptions

A. Salary increases due to service Table A-5

B. Retirement
 C. Disablement
 D. Mortality for active members prior to termination\*
 Tables A-6 to A-11
 Tables A-6 to A-11

#### Basis-- RP-2000 Employees Table with age adjustments:

Age

Class of Members	Adjustment	
General – Males General – Females	-3 years -3 years	
Safety – Males Safety – Females	-3 years -3 years	

E. Mortality for active members after termination and service retired members\*

Table A-2

Basis – RP-2000 Healthy Combined Mortality Table with adjustment for White Collar workers:

Class of Members	Age <u>Adjustment</u>
General – Males	-3 years
General – Females	-3 years
Safety – Males	-3 years
Safety – Females	-3 years



### Table A-1: Summary of Valuation Assumptions as of June 30, 2013 (continued)

F. Mortality among disabled members\*

Table A-3

Basis – Average of RP-2000 Healthy Combined Mortality Table with adjustment for White Collar workers and RP-2000 Disabled Annuitant Mortality Table:

Class of Members	Age <u>Adjustment</u>	Minimum <u>Rate</u>
General – Males	-3 years	None
General – Females	-3 years	None

Basis – RP-2000 Healthy Combined Mortality Table with adjustment for White Collar workers:

Class of Members	Age <u>Adjustment</u>	Minimum <u>Rate</u>
Safety – Males	none	1.00%
Safety – Females	none	0.40%

G. Mortality for beneficiaries\*

Table A-2

Basis – Beneficiaries are assumed to be of the opposite sex and have the same mortality as General members.

H. Other terminations of employment

Tables A-6 to A-11

I. Refund of contributions on vested termination

Table A-4



<sup>\*</sup> The current mortality assumptions contain a margin to account for expected future mortality improvement. Refer to the 2011 Investigation of Experience Report for details.

Table A-2: Mortality for Members Retired for Service

	General	General	Safety	Safety
Age	Male	Female	Male	Female
20	0.030%	0.018%	0.030%	0.018%
25	0.037%	0.019%	0.037%	0.019%
30	0.038%	0.022%	0.038%	0.022%
35	0.043%	0.036%	0.043%	0.036%
40	0.071%	0.053%	0.071%	0.053%
45	0.103%	0.076%	0.103%	0.076%
50	0.158%	0.123%	0.158%	0.123%
55	0.250%	0.192%	0.250%	0.192%
60	0.409%	0.332%	0.409%	0.332%
65	0.731%	0.599%	0.731%	0.599%
70	1.404%	1.094%	1.404%	1.094%
75	2.387%	1.878%	2.387%	1.878%
80	4.236%	3.155%	4.236%	3.155%
85	7.493%	5.337%	7.493%	5.337%
90	13.019%	9.248%	13.019%	9.248%

Table A-3: Mortality for Members Retired for Disability

	General	General	Safety	Safety
Age	Male	<u>Female</u>	Male	Female
20	1.144%	0.382%	1.000%	0.400%
25	1.147%	0.382%	1.000%	0.400%
30	1.148%	0.384%	1.000%	0.400%
35	1.150%	0.391%	1.000%	0.400%
40	1.164%	0.399%	1.000%	0.400%
45	1.180%	0.411%	1.000%	0.400%
50	1.335%	0.509%	1.000%	0.400%
55	1.703%	0.769%	1.000%	0.400%
60	2.106%	1.099%	1.000%	0.468%
65	2.615%	1.503%	1.106%	0.865%
70	3.424%	2.114%	1.928%	1.519%
75	4.664%	3.082%	3.363%	2.572%
80	6.725%	4.555%	5.941%	4.308%
85	9.840%	6.783%	10.467%	7.419%
90	14.271%	10.350%	17.827%	12.615%

Table A-4: Immediate Refund of Contributions Upon Termination of Employment (Excludes Plan 3)

Years of		
Service	General	Safety
0	100%	100%
1	100%	100%
2	100%	100%
3	100%	100%
4	100%	100%
5	45%	35%
6	45%	35%
7	45%	35%
8	44%	34%
9	43%	33%
10	42%	32%
11	41%	31%
12	40%	30%
13	38%	25%
14	36%	20%
15	34%	15%
16	32%	10%
17	30%	5%
18	27%	4%
19	24%	3%
20	21%	0%
21	18%	0%
22	15%	0%
23	12%	0%
24	9%	0%
25	6%	0%
26	3%	0%
27	0%	0%
28	0%	0%
29	0%	0%
30 & Up	0%	0%

Table A-5: Annual Increase in Salary

Years of Service	Due to Promotion and Longevity	Total Annual Increase*
<1	6.00%	9.97%
1	4.00%	7.90%
2	3.00%	6.86%
3	2.50%	6.34%
3 4		
4	2.00%	5.82%
5	1.75%	5.57%
6	1.50%	5.31%
7	1.25%	5.05%
8	1.05%	4.84%
9	0.90%	4.68%
10	0.80%	4.58%
11	0.70%	4.48%
12	0.60%	4.37%
13	0.50%	4.27%
14	0.50%	4.27%
15	0.50%	4.27%
16	0.50%	4.27%
17	0.50%	4.27%
18	0.50%	4.27%
19	0.50%	4.27%
20 or More	0.50%	4.27%

<sup>\*</sup> The total expected increase in salary is the increase due to promotions and longevity, adjusted for an assumed 3.75% per annum increase in the general wage level of the membership. The total result is compounded rather than additive.

### Appendix A: Rates of Separation From Active Service Tables A-6 to A-11

A schedule of the probabilities of termination of employment due to the following causes can be found on the following pages:

Service Retirement: Member retires after meeting age and service

requirements for reasons other than disability.

Withdrawal: Member terminates and elects a refund of member

contributions, or a deferred vested retirement

benefit.

Service Disability: Member receives disability retirement; disability is

service related.

Ordinary Disability: Member receives disability retirement; disability is

not service related.

Service Death: Member dies before retirement; death is service

related.

Ordinary Death: Member dies before retirement; death is not

service related.

Each rate represents the probability that a member will separate from service at each age due to the particular cause. For example, a rate of 0.0300 for a member's service retirement at age 50 means we assume that 30 out of 1,000 members who are age 50 will retire at that age.

Each table represents the detailed rates needed for each SamCERA plan by sex:

Table A-6: General Plan 1, 2, 4, 5 & 7 Males A-10: Safety and Probation Plans 1, 2,

A-7: General Plan 1, 2, 4, 5 & 7 Females 4, 5, 6 & 7 Males

A-8: General Plan 3 Males A-11: Safety and Probation Plans 1, 2,

A-9: General Plan 3 Females 4, 5, 6 & 7 Females



Table A-6: Rate of Separation From Active Service General Plans 1, 2, 4, 5 & 7 – Male

18	Age	Service Retirement*	Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations
19	18	0.0000	0.0004	0.0002	N/A	0.0003	0	0.1300
20								
21								
22							3	
23								
24								
25							6	
26							7	
27 0,0000 0,0004 0,0002 N/A 0,0004 10 0,0410 28 0,0000 0,0004 0,0002 N/A 0,0004 10 0,0410 29 0,0000 0,0004 0,0003 N/A 0,0004 11 0,0380 30 0,0000 0,0005 0,0003 N/A 0,0004 12 0,0350 31 0,0000 0,0005 0,0003 N/A 0,0004 12 0,0350 31 0,0000 0,0005 0,0003 N/A 0,0004 13 0,0330 32 0,0000 0,0005 0,0003 N/A 0,0004 14 0,0310 33 0,0000 0,0005 0,0003 N/A 0,0004 15 0,0290 34 0,0000 0,0006 0,0004 N/A 0,0004 15 0,0290 34 0,0000 0,0006 0,0004 N/A 0,0006 16 0,0220 36 0,0000 0,0006 0,0004 N/A 0,0006 17 0,0250 36 0,0000 0,0007 0,0004 N/A 0,0006 18 0,0230 37 0,0000 0,0007 0,0005 N/A 0,0007 19 0,0210 38 0,0000 0,0008 0,0005 N/A 0,0007 19 0,0210 39 0,0000 0,0008 0,0005 N/A 0,0008 20 0,0190 39 0,0000 0,0008 0,0006 N/A 0,0008 21 0,0170 40 0,0000 0,0010 0,0006 N/A 0,0009 22 0,0190 41 0,0000 0,0011 0,0007 N/A 0,0010 23 0,0140 42 0,0000 0,0011 0,0007 N/A 0,0010 23 0,0140 43 0,0000 0,0011 0,0007 N/A 0,0010 23 0,0140 44 0,0000 0,0011 0,0007 N/A 0,0010 23 0,0140 44 0,0000 0,0011 0,0007 N/A 0,0010 23 0,0140 45 0,0000 0,0011 0,0007 N/A 0,0011 25 0,0130 46 0,0000 0,0014 0,0009 N/A 0,0011 25 0,0130 47 0,0000 0,0014 0,0009 N/A 0,0011 25 0,0130 48 0,0000 0,0014 0,0009 N/A 0,0011 25 0,0110 49 0,0000 0,0014 0,0009 N/A 0,0011 25 0,0110 40 0,0000 0,0016 0,0010 N/A 0,0011 25 0,0110 41 0,0000 0,0016 0,0010 N/A 0,0011 25 0,0110 42 0,0000 0,0011 N/A 0,0015 30 & Above 0,0000 47 0,0000 0,0016 0,0010 N/A 0,0016 50 0,0100 48 0,0000 0,0016 0,0011 N/A 0,0016 50 0,0010 N/A 0,0015 50 0,0000 0,0016 0,0011 N/A 0,0016 50 0,0010 N/A 0,0016 50 0,0010 N/A 0,0016 50 0,0010 N/A 0,0016 50 0,0016 0,0011 N/A 0,0016 50 0,0010 N/A 0,0016 0,0011 N/A 0,0016 50 0,0016 0,0016 N/A 0,0006 0,0016 0,0016 N/A 0,0006 0,0016 0,0016 N/A 0,0006 0,0016 0,0016 0,0011 N/A 0,0016 50 0,0016 0,0016 0,0016 0,0016 0,0016 0,0016 0,0016 0,0016 0,0016 0,0016 0,0016 0,001			0.0004			0.0004		
299	27	0.0000	0.0004	0.0002	N/A	0.0004		0.0440
299 0.0000 0.0004 0.0003 N/A 0.0004 11 0.0380 30 0.0000 0.0004 0.0003 N/A 0.0004 12 0.0350 31 0.0000 0.0005 0.0003 N/A 0.0004 13 0.0330 32 0.0000 0.0005 0.0003 N/A 0.0004 14 0.0310 33 0.0000 0.0005 0.0004 N/A 0.0004 15 0.0290 34 0.0000 0.0006 0.0004 N/A 0.0005 16 0.0270 35 0.0000 0.0006 0.0004 N/A 0.0005 16 0.0270 36 0.0000 0.0006 0.0004 N/A 0.0006 17 0.0250 36 0.0000 0.0007 0.0004 N/A 0.0006 18 0.0220 37 0.0000 0.0007 0.0004 N/A 0.0006 18 0.0230 38 0.0000 0.0007 0.0005 N/A 0.0007 19 0.0210 38 0.0000 0.0008 0.0005 N/A 0.0007 19 0.0210 39 0.0000 0.0008 0.0005 N/A 0.0008 20 0.0180 39 0.0000 0.0008 0.0006 N/A 0.0008 21 0.0170 40 0.0000 0.0010 0.0006 N/A 0.0008 21 0.0170 41 0.0000 0.0011 0.0007 N/A 0.0010 23 0.0140 42 0.0000 0.0011 0.0007 N/A 0.0010 23 0.0140 43 0.0000 0.0011 0.0007 N/A 0.0010 23 0.0140 44 0.0000 0.0011 0.0007 N/A 0.0011 25 0.0120 45 0.0000 0.0011 0.0007 N/A 0.0011 26 0.0110 46 0.0000 0.0014 0.0013 N/A 0.0011 26 0.0110 47 0.0000 0.0014 0.0009 N/A 0.0011 26 0.0110 48 0.0000 0.0015 0.0009 N/A 0.0011 28 0.0100 49 0.0000 0.0014 0.0010 N/A 0.0011 28 0.0100 48 0.0000 0.0015 0.0016 N/A 0.0016 29 0.0100 50 0.0500 0.0016 0.0010 N/A 0.0016 50 0.0500 0.0016 0.0010 N/A 0.0021 55 0.0500 0.0016 0.0010 N/A 0.0026 57 0.0500 0.0016 0.0011 N/A 0.0026 57 0.0500 0.0022 0.0015 N/A 0.0026 55 0.0500 0.0022 0.0015 N/A 0.0026 56 0.0500 0.0026 0.0028 0.0018 N/A 0.0036 65 0.0500 0.0026 0.0028 0.0018 N/A 0.0036 65 0.0500 0.0026 0.0028 0.0018 N/A 0	28	0.0000	0.0004	0.0002	N/A	0.0004	10	0.0410
30		0.0000	0.0004	0.0003		0.0004		0.0380
311 0.0000 0.0005 0.0003 N/A 0.0004 13 0.0330 32 0.0000 0.0005 0.0003 N/A 0.0004 14 0.0310 33 0.0000 0.0005 0.0004 N/A 0.0004 15 0.0290 34 0.0000 0.0006 0.0004 N/A 0.0005 16 0.0270 35 0.0000 0.0006 0.0004 N/A 0.0005 16 0.0270 36 0.0000 0.0006 0.0004 N/A 0.0006 17 0.0250 36 0.0000 0.0007 0.0004 N/A 0.0006 18 0.0230 37 0.0000 0.0007 0.0004 N/A 0.0006 18 0.0230 38 0.0000 0.0007 0.0005 N/A 0.0007 19 0.0210 38 0.0000 0.0008 0.0005 N/A 0.0008 20 0.0190 39 0.0000 0.0008 0.0006 N/A 0.0008 21 0.0170 40 0.0000 0.0010 0.0006 N/A 0.0008 21 0.0170 41 0.0000 0.0010 0.0006 N/A 0.0009 22 0.0150 41 0.0000 0.0011 0.0007 N/A 0.0010 23 0.0140 42 0.0000 0.0011 0.0007 N/A 0.0010 23 0.0140 43 0.0000 0.0011 0.0007 N/A 0.0011 25 0.0130 43 0.0000 0.0011 0.0008 N/A 0.0011 25 0.0120 44 0.0000 0.0012 0.0008 N/A 0.0011 25 0.0120 45 0.0000 0.0013 0.0008 N/A 0.0011 26 0.0110 46 0.0000 0.0014 0.0009 N/A 0.0011 26 0.0110 46 0.0000 0.0014 0.0009 N/A 0.0011 26 0.0100 47 0.0000 0.0014 0.0009 N/A 0.0013 28 0.0100 48 0.0000 0.0014 0.0009 N/A 0.0013 28 0.0100 48 0.0000 0.0016 0.0010 N/A 0.0015 30 & Above 0.0000 49 0.0000 0.0016 0.0010 N/A 0.0017 51 0.0450 0.0016 0.0010 N/A 0.0017 51 0.0450 0.0016 0.0010 N/A 0.0017 51 0.0450 0.0016 0.0011 N/A 0.0015 52 0.0500 0.0016 0.0010 N/A 0.0024 56 0.0600 0.0018 0.0012 N/A 0.0024 56 0.0600 0.0018 0.0012 N/A 0.0024 56 0.0600 0.0019 0.0012 N/A 0.0024 56 0.0600 0.0019 0.0012 N/A 0.0026 57 0.0800 0.0019 0.0012 N/A 0.0026 58 0.1200 0.0021 0.0014 N/A 0.0036 60 0.1500 0.0022 0.0015 N/A 0.0036 61 0.2000 0.0022 0.0015 N/A 0.0036 61 0.2500 0.0022 0.0015 N/A 0.0036 66 0.3500 0.0022 0.0015 N/A 0.0059 66 0.3500 0.0029 0.0018 N/A 0.0059 66 0.3500 0.0029 0.0018 N/A 0.0059 66 0.3500 0.0029 0.0018 N/A 0.0059 67 0.3500 0.0031 0.0021 N/A 0.0059 68 0.3000 0.0031 0.0021 N/A 0.0056	30	0.0000	0.0004	0.0003		0.0004	12	0.0350
32		0.0000	0.0005	0.0003		0.0004	13	0.0330
33 0.0000 0.0005 0.0004 N/A 0.0004 15 0.0290 34 0.0000 0.0006 0.0004 N/A 0.0005 16 0.0270 35 0.0000 0.0006 0.0004 N/A 0.0006 17 0.0250 36 0.0000 0.0007 0.0004 N/A 0.0006 17 0.0250 37 0.0000 0.0007 0.0005 N/A 0.0006 18 0.0230 37 0.0000 0.0007 0.0005 N/A 0.0006 19 0.0210 38 0.0000 0.0008 0.0005 N/A 0.0008 20 0.0190 39 0.0000 0.0008 0.0006 N/A 0.0008 21 0.0170 40 0.0000 0.0010 0.0006 N/A 0.0009 22 0.0150 41 0.0000 0.0010 0.0006 N/A 0.0009 22 0.0150 41 0.0000 0.0011 0.0007 N/A 0.0010 23 0.0140 42 0.0000 0.0011 0.0007 N/A 0.0010 23 0.0140 43 0.0000 0.0011 0.0007 N/A 0.0011 25 0.0120 44 0.0000 0.0011 0.0007 N/A 0.0011 25 0.0120 44 0.0000 0.0011 0.0007 N/A 0.0011 25 0.0120 45 0.0000 0.0012 0.0008 N/A 0.0011 25 0.0120 46 0.0000 0.0012 0.0008 N/A 0.0011 25 0.0110 46 0.0000 0.0013 0.0009 N/A 0.0011 27 0.0100 48 0.0000 0.0014 0.0009 N/A 0.0013 28 0.0140 47 0.0000 0.0014 0.0009 N/A 0.0013 28 0.0100 47 0.0000 0.0014 0.0009 N/A 0.0013 28 0.0100 48 0.0000 0.0015 0.0016 N/A 0.0013 28 0.0100 49 0.0000 0.0016 0.0010 N/A 0.0016 50 0.0006 0.0016 0.0010 N/A 0.0016 50 0.0006 0.0016 0.0010 N/A 0.0016 50 0.0006 0.0016 0.0010 N/A 0.0016 55 0.0500 0.0016 0.0011 N/A 0.0016 55 0.0500 0.0016 0.0010 N/A 0.0016 55 0.0500 0.0016 0.0010 N/A 0.0019 55 0.0000 0.0016 0.0011 N/A 0.0016 55 0.0500 0.0016 0.0010 N/A 0.0016 55 0.0500 0.0016 0.0010 N/A 0.0016 55 0.0500 0.0016 0.0011 N/A 0.0020 55 0.0500 0.0018 0.0012 N/A 0.0023 55 0.0600 0.0018 0.0012 N/A 0.0023 55 0.0600 0.0018 0.0012 N/A 0.0024 56 0.0600 0.0019 0.0012 N/A 0.0024 56 0.0600 0.0019 0.0012 N/A 0.0026 57 0.0600 0.0018 0.0012 N/A 0.0026 57 0.0600 0.0018 0.0012 N/A 0.0026 57 0.0600 0.0018 0.0012 N/A 0.0026 56 0.0600 0.0019 0.0013 N/A 0.0026 57 0.0000 0.0026 0.0016 N/A 0.0044 56 0.0500 0.0026 0.0016 N/A 0.0066 56 0.0500 0.0026 0.0018 N/A 0.0066 56 0.0500 0.00032 0.0020 N/A 0.0056 50 0.	32	0.0000	0.0005	0.0003		0.0004		0.0310
34 0.0000 0.0006 0.0004 N/A 0.0005 16 0.0270 35 0.0000 0.0006 0.0004 N/A 0.0006 17 0.0250 36 0.0000 0.0007 0.0004 N/A 0.0006 18 0.0230 37 0.0000 0.0007 0.0005 N/A 0.0007 19 0.0210 38 0.0000 0.0008 0.0005 N/A 0.0007 19 0.0210 39 0.0000 0.0008 0.0006 N/A 0.0008 20 0.0190 40 0.0000 0.0008 0.0006 N/A 0.0008 21 0.0170 40 0.0000 0.0010 0.0006 N/A 0.0008 21 0.0170 41 0.0000 0.0011 0.0007 N/A 0.0001 23 0.0140 42 0.0000 0.0011 0.0007 N/A 0.0010 23 0.0140 44 0.0000 0.0011 0.0007 N/A 0.0010 25 0.0140 45 0.0000 0.0011 0.0008 N/A 0.0011 25 0.0120 44 0.0000 0.0011 0.0008 N/A 0.0011 25 0.0120 45 0.0000 0.0013 0.0009 N/A 0.0011 26 0.0110 46 0.0000 0.0014 0.0009 N/A 0.0011 26 0.0110 47 0.0000 0.0014 0.0009 N/A 0.0012 27 0.0100 48 0.0000 0.0014 0.0009 N/A 0.0014 29 0.0100 49 0.0000 0.0016 0.0010 N/A 0.0014 29 0.0100 49 0.0000 0.0016 0.0010 N/A 0.0016 30 & Above 0.0000 49 0.0000 0.0016 0.0010 N/A 0.0016 50 0.0500 0.0016 0.0010 N/A 0.0017 51 0.0450 0.0016 0.0010 N/A 0.0017 51 0.0450 0.0016 0.0010 N/A 0.0019 52 0.0450 0.0016 0.0010 N/A 0.0019 53 0.0500 0.0016 0.0010 N/A 0.0021 54 0.0500 0.0018 0.0012 N/A 0.0023 55 0.0500 0.0018 0.0012 N/A 0.0023 55 0.0500 0.0018 0.0012 N/A 0.0023 55 0.0500 0.0018 0.0012 N/A 0.0024 56 0.0500 0.0018 N/A 0.0024 57 0.0500 0.0018 N/A 0.0024 58 0.1200 0.0022 0.0015 N/A 0.0026 57 0.0500 0.0018 N/A 0.0026 58 0.1200 0.0021 N/A 0.0026 59 0.1200 0.0021 N/A 0.0026 56 0.0500 0.0018 N/A 0.0026 57 0.0500 0.0018 N/A 0.0026 58 0.1200 0.0021 N/A 0.0026 59 0.1200 0.0022 0.0015 N/A 0.0026 56 0.0500 0.0018 N/A 0.0044 63 0.2500 0.0028 0.0016 N/A 0.0044 64 0.2500 0.0028 0.0016 N/A 0.0044 65 0.3500 0.0028 0.0018 N/A 0.0044 66 0.3500 0.0028 0.0018 N/A 0.0054 67 0.3500 0.0028 0.0018 N/A 0.0056 67 0.3500 0.0032 0.0019 N/A 0.0056		0.0000	0.0005	0.0004	N/A	0.0004	15	0.0290
36		0.0000	0.0006	0.0004	N/A	0.0005	16	0.0270
36	35	0.0000	0.0006	0.0004	N/A	0.0006	17	0.0250
37								
38								
39								
40 0.0000 0.0010 0.0006 N/A 0.0009 22 0.0150 41 0.0000 0.0010 0.0007 N/A 0.0010 23 0.0140 42 0.0000 0.0011 0.0007 N/A 0.0010 24 0.0130 43 0.0000 0.0011 0.0008 N/A 0.0011 25 0.0120 44 0.0000 0.0012 0.0008 N/A 0.0011 26 0.0110 45 0.0000 0.0013 0.0009 N/A 0.0012 27 0.0100 46 0.0000 0.0014 0.0009 N/A 0.0012 27 0.0100 47 0.0000 0.0014 0.0010 N/A 0.0013 28 0.0100 48 0.0000 0.0014 0.0010 N/A 0.0014 29 0.0100 48 0.0000 0.0015 0.0010 N/A 0.0015 30 & Above 0.0000 49 0.0000 0.0016 0.0010 N/A 0.0016 50 0.0500 0.0016 0.0010 N/A 0.0017 51 0.0450 0.0016 0.0010 N/A 0.0017 51 0.0450 0.0016 0.0011 N/A 0.0019 52 0.0450 0.0016 0.0011 N/A 0.0019 52 0.0450 0.0016 0.0011 N/A 0.0020 53 0.0500 0.0017 0.0011 N/A 0.0020 53 0.0500 0.0018 0.0017 N/A 0.0021 54 0.0500 0.0018 0.0012 N/A 0.0021 55 0.0600 0.0018 0.0012 N/A 0.0021 56 0.0600 0.0018 0.0012 N/A 0.0024 56 0.0600 0.0019 0.0012 N/A 0.0024 56 0.0600 0.0019 0.0012 N/A 0.0026 57 0.0800 0.0019 0.0012 N/A 0.0026 57 0.0800 0.0019 0.0012 N/A 0.0026 58 0.1200 0.0020 0.0014 N/A 0.0026 59 0.1200 0.0020 0.0014 N/A 0.0030 60 0.1500 0.0022 0.0015 N/A 0.0036 61 0.2500 0.0022 0.0015 N/A 0.0036 61 0.2500 0.0022 0.0015 N/A 0.0036 61 0.2500 0.0028 0.0016 N/A 0.0044 63 0.2500 0.0028 0.0017 N/A 0.0059 66 0.3500 0.0028 0.0018 N/A 0.0059 66 0.3500 0.0029 0.0019 N/A 0.0065 67 0.3500 0.0031 0.0021 N/A 0.0065 67 0.3500 0.0031 0.0021 N/A 0.0066								
41         0.0000         0.0010         0.0007         N/A         0.0010         23         0.0140           42         0.0000         0.0011         0.0007         N/A         0.0010         24         0.0130           43         0.0000         0.0011         0.0008         N/A         0.0011         25         0.0120           44         0.0000         0.0013         0.0009         N/A         0.0012         27         0.0100           45         0.0000         0.0014         0.0009         N/A         0.0012         27         0.0100           46         0.0000         0.0014         0.0010         N/A         0.0013         28         0.0100           47         0.0000         0.0014         0.0010         N/A         0.0014         29         0.0100           48         0.0000         0.0015         0.0010         N/A         0.0015         30 & Above         0.0000           49         0.0000         0.0016         0.0010         N/A         0.0017         0.0010         N/A         0.0015         30 & Above         0.0000           50         0.0500         0.0016         0.0011         N/A         0.0017         0								
42         0.0000         0.0011         0.0007         N/A         0.0010         24         0.0130           43         0.0000         0.0011         0.0008         N/A         0.0011         25         0.0120           44         0.0000         0.0013         0.0009         N/A         0.0012         27         0.0100           45         0.0000         0.0014         0.0009         N/A         0.0013         28         0.0100           46         0.0000         0.0014         0.0009         N/A         0.0013         28         0.0100           47         0.0000         0.0014         0.0010         N/A         0.0014         29         0.0100           48         0.0000         0.0015         0.0010         N/A         0.0015         30 & Above         0.0000           49         0.0000         0.0016         0.0010         N/A         0.0016         0.0010         N/A         0.0017         0.0000         0.0016         0.0017         N/A         0.0017         0.0017         0.0011         N/A         0.0017         0.0017         N/A         0.0021         0.0017         0.0011         N/A         0.0021         0.0024         N/A								
43         0.0000         0.0011         0.0008         N/A         0.0011         25         0.0120           44         0.0000         0.0013         0.0009         N/A         0.0011         26         0.0110           45         0.0000         0.0013         0.0009         N/A         0.0012         27         0.0100           46         0.0000         0.0014         0.0009         N/A         0.0013         28         0.0100           47         0.0000         0.0014         0.0010         N/A         0.0014         29         0.0100           48         0.0000         0.0016         0.0010         N/A         0.0016         30 & Above         0.0000           49         0.0000         0.0016         0.0010         N/A         0.0016         0.0010           50         0.0500         0.0016         0.0011         N/A         0.0017         0.0019           51         0.0450         0.0017         0.0011         N/A         0.0021         0.0021           52         0.0450         0.0017         0.0011         N/A         0.0021         0.0021           53         0.0500         0.0018         0.0012         N/A								
44         0.0000         0.0012         0.0008         N/A         0.0011         26         0.0110           45         0.0000         0.0013         0.0009         N/A         0.0012         27         0.0100           46         0.0000         0.0014         0.0009         N/A         0.0013         28         0.0100           47         0.0000         0.0015         0.0010         N/A         0.0015         30 & Above         0.0100           48         0.0000         0.0016         0.0010         N/A         0.0015         30 & Above         0.0000           49         0.0000         0.0016         0.0010         N/A         0.0017         0.0016         0.0010         N/A         0.0017         0.0017         0.0011         N/A         0.0019         0.0017         0.0011         N/A         0.0019         0.0017         0.0011         N/A         0.0021         0.0014         0.0020         0.0017         0.0012         N/A         0.0022         0.0012         N/A         0.0022         0.0012         N/A         0.0023         0.0024         0.0020         0.0018         0.0012         N/A         0.0024         0.0024         0.0026         0.0024         0.0024								
45         0.0000         0.0013         0.0009         N/A         0.0012         27         0.0100           46         0.0000         0.0014         0.0009         N/A         0.0013         28         0.0100           47         0.0000         0.0015         0.0010         N/A         0.0015         30 & Above         0.0100           48         0.0000         0.0016         0.0010         N/A         0.0015         30 & Above         0.0000           49         0.0000         0.0016         0.0010         N/A         0.0017         0.0016         0.0011         N/A         0.0019         0.0020         0.0020         0.0020         0.0020         0.0020         0.0011         N/A         0.0021         0.0020         0.0021         N/A         0.0021         N/A         0.0021         0.0021         N/A         0.0022         0.0021         0.0024         0.0024         0.0024         0.0024         0.0024         0.0024         0.0024         0.0024         0.0024         0.0024         0.0024         0.0024								
46         0.0000         0.0014         0.0009         N/A         0.0013         28         0.0100           47         0.0000         0.0014         0.0010         N/A         0.0014         29         0.0100           48         0.0000         0.0015         0.0010         N/A         0.0015         30 & Above         0.0000           49         0.0000         0.0016         0.0010         N/A         0.0016         0.0017           50         0.0500         0.0016         0.0011         N/A         0.0017         0.0017           51         0.0450         0.0016         0.0011         N/A         0.0020         0.0020           53         0.0500         0.0017         0.0011         N/A         0.0021         0.0021           54         0.0500         0.0018         0.0012         N/A         0.0023         0.0024           55         0.0600         0.0018         0.0012         N/A         0.0024         0.0024           56         0.0600         0.0018         0.0012         N/A         0.0028         0.0024           57         0.0800         0.0019         0.0013         N/A         0.0028         0.0024 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
47         0.0000         0.0014         0.0010         N/A         0.0014         29         0.0100           48         0.0000         0.0015         0.0010         N/A         0.0015         30 & Above         0.0000           49         0.0000         0.0016         0.0010         N/A         0.0016         0.0010         N/A         0.0017           50         0.0500         0.0016         0.0011         N/A         0.0019         0.0019         0.0019         0.0019         0.0019         0.0019         0.0019         0.0020         0.0020         0.0021         0.0020         0.0021         0.0021         0.0021         0.0021         0.0021         0.0021         0.0021         0.0021         0.0021         0.0021         0.0021         0.0022         0.0021         0.0022         0.0021         0.0022         0.0022         0.0022         0.0022         0.0022         0.0024         0.0024         0.0024         0.0024         0.0024         0.0024         0.0024         0.0024         0.0024         0.0024         0.0024         0.0024         0.0024         0.0024         0.0028         0.0024         0.0024         0.0028         0.0028         0.0024         0.0024         0.0024         0.002								
48       0.0000       0.0015       0.0010       N/A       0.0015       30 & Above       0.0000         49       0.0000       0.0016       0.0010       N/A       0.0016       0.0017         50       0.0500       0.0016       0.0011       N/A       0.0017       0.0019         51       0.0450       0.0017       0.0011       N/A       0.0020         52       0.0450       0.0017       0.0012       N/A       0.0021         53       0.0500       0.0017       0.0012       N/A       0.0023         54       0.0500       0.0018       0.0012       N/A       0.0023         55       0.0600       0.0018       0.0012       N/A       0.0024         56       0.0600       0.0019       0.0012       N/A       0.0026         57       0.0800       0.0019       0.0013       N/A       0.0028         58       0.1200       0.0020       0.0014       N/A       0.0033         59       0.1200       0.0021       0.0014       N/A       0.0036         61       0.2000       0.0023       0.0015       N/A       0.0044         62       0.3250       0.0024							29	
49         0.0000         0.016         0.0010         N/A         0.0016           50         0.0500         0.0016         0.0010         N/A         0.0017           51         0.0450         0.0016         0.0011         N/A         0.0019           52         0.0450         0.0017         0.0011         N/A         0.0020           53         0.0500         0.0017         0.0012         N/A         0.0023           54         0.0500         0.0018         0.0012         N/A         0.0023           55         0.0600         0.0018         0.0012         N/A         0.0024           56         0.0600         0.0019         0.0012         N/A         0.0024           57         0.0800         0.0019         0.0012         N/A         0.0028           58         0.1200         0.0020         0.0014         N/A         0.0033           59         0.1200         0.0021         0.0014         N/A         0.0036           61         0.2000         0.0022         0.0015         N/A         0.0040           62         0.3250         0.0024         0.0016         N/A         0.0049								
50         0.0500         0.0016         0.0010         N/A         0.0017           51         0.0450         0.0016         0.0011         N/A         0.0019           52         0.0450         0.0017         0.0011         N/A         0.0020           53         0.0500         0.0017         0.0012         N/A         0.0021           54         0.0500         0.0018         0.0012         N/A         0.0023           55         0.0600         0.0018         0.0012         N/A         0.0024           56         0.0600         0.0019         0.0012         N/A         0.0026           57         0.0800         0.0019         0.0013         N/A         0.0028           58         0.1200         0.0020         0.0014         N/A         0.0030           59         0.1200         0.0021         0.0014         N/A         0.0033           60         0.1500         0.0022         0.0015         N/A         0.0036           61         0.2000         0.0023         0.0015         N/A         0.0040           62         0.3250         0.0024         0.0016         N/A         0.0044								
51         0.0450         0.0016         0.0011         N/A         0.0019           52         0.0450         0.0017         0.0011         N/A         0.0020           53         0.0500         0.0017         0.0012         N/A         0.0021           54         0.0500         0.0018         0.0012         N/A         0.0023           55         0.0600         0.0018         0.0012         N/A         0.0024           56         0.0600         0.0019         0.0012         N/A         0.0026           57         0.0800         0.0019         0.0013         N/A         0.0028           58         0.1200         0.0020         0.0014         N/A         0.0033           60         0.1500         0.0021         0.0014         N/A         0.0033           60         0.1500         0.0022         0.0015         N/A         0.0036           61         0.2000         0.0023         0.0015         N/A         0.0040           62         0.3250         0.0024         0.0016         N/A         0.0044           63         0.2500         0.0025         0.0017         N/A         0.0054								
52         0.0450         0.0017         0.0011         N/A         0.0020           53         0.0500         0.0017         0.0012         N/A         0.0021           54         0.0500         0.0018         0.0012         N/A         0.0023           55         0.0600         0.0018         0.0012         N/A         0.0024           56         0.0600         0.0019         0.0012         N/A         0.0026           57         0.0800         0.0019         0.0013         N/A         0.0028           58         0.1200         0.0020         0.0014         N/A         0.0030           59         0.1200         0.0021         0.0014         N/A         0.0033           60         0.1500         0.0022         0.0015         N/A         0.0036           61         0.2000         0.0023         0.0015         N/A         0.0040           62         0.3250         0.0024         0.0016         N/A         0.0044           63         0.2500         0.0025         0.0017         N/A         0.0049           64         0.2500         0.0028         0.0018         N/A         0.0054								
53         0.0500         0.0017         0.0012         N/A         0.0021           54         0.0500         0.0018         0.0012         N/A         0.0023           55         0.0600         0.0018         0.0012         N/A         0.0024           56         0.0600         0.0019         0.0012         N/A         0.0026           57         0.0800         0.0019         0.0013         N/A         0.0028           58         0.1200         0.0020         0.0014         N/A         0.0030           59         0.1200         0.0021         0.0014         N/A         0.0033           60         0.1500         0.0022         0.0015         N/A         0.0040           61         0.2000         0.0023         0.0015         N/A         0.0040           62         0.3250         0.0024         0.0016         N/A         0.0044           63         0.2500         0.0025         0.0017         N/A         0.0054           64         0.2500         0.0026         0.0018         N/A         0.0059           66         0.3500         0.0029         0.0019         N/A         0.0065								
54         0.0500         0.0018         0.0012         N/A         0.0023           55         0.0600         0.0018         0.0012         N/A         0.0024           56         0.0600         0.0019         0.0012         N/A         0.0026           57         0.0800         0.0019         0.0013         N/A         0.0028           58         0.1200         0.0020         0.0014         N/A         0.0030           59         0.1200         0.0021         0.0014         N/A         0.0033           60         0.1500         0.0022         0.0015         N/A         0.0040           61         0.2000         0.0023         0.0015         N/A         0.0040           62         0.3250         0.0024         0.0016         N/A         0.0044           63         0.2500         0.0025         0.0017         N/A         0.0049           64         0.2500         0.0026         0.0018         N/A         0.0054           65         0.2500         0.0028         0.0018         N/A         0.0059           66         0.3500         0.0029         0.0019         N/A         0.0065								
55         0.0600         0.0018         0.0012         N/A         0.0024           56         0.0600         0.0019         0.0012         N/A         0.0026           57         0.0800         0.0019         0.0013         N/A         0.0028           58         0.1200         0.0020         0.0014         N/A         0.0030           59         0.1200         0.0021         0.0014         N/A         0.0033           60         0.1500         0.0022         0.0015         N/A         0.0036           61         0.2000         0.0023         0.0015         N/A         0.0040           62         0.3250         0.0024         0.0016         N/A         0.0044           63         0.2500         0.0025         0.0017         N/A         0.0049           64         0.2500         0.0026         0.0018         N/A         0.0054           65         0.2500         0.0028         0.0018         N/A         0.0059           66         0.3500         0.0029         0.0019         N/A         0.0065           67         0.3500         0.0031         0.0021         N/A         0.0076								
56         0.0600         0.0019         0.0012         N/A         0.0026           57         0.0800         0.0019         0.0013         N/A         0.0028           58         0.1200         0.0020         0.0014         N/A         0.0030           59         0.1200         0.0021         0.0014         N/A         0.0033           60         0.1500         0.0022         0.0015         N/A         0.0036           61         0.2000         0.0023         0.0015         N/A         0.0040           62         0.3250         0.0024         0.0016         N/A         0.0044           63         0.2500         0.0025         0.0017         N/A         0.0049           64         0.2500         0.0026         0.0018         N/A         0.0054           65         0.2500         0.0028         0.0018         N/A         0.0059           66         0.3500         0.0029         0.0019         N/A         0.0065           67         0.3500         0.0030         0.0020         N/A         0.0076           69         0.3000         0.0032         0.0022         N/A         0.0081								
57         0.0800         0.0019         0.0013         N/A         0.0028           58         0.1200         0.0020         0.0014         N/A         0.0030           59         0.1200         0.0021         0.0014         N/A         0.0033           60         0.1500         0.0022         0.0015         N/A         0.0036           61         0.2000         0.0023         0.0015         N/A         0.0040           62         0.3250         0.0024         0.0016         N/A         0.0044           63         0.2500         0.0025         0.0017         N/A         0.0049           64         0.2500         0.0026         0.0018         N/A         0.0054           65         0.2500         0.0028         0.0018         N/A         0.0059           66         0.3500         0.0029         0.0019         N/A         0.0065           67         0.3500         0.0030         0.0020         N/A         0.0076           69         0.3000         0.0032         0.0022         N/A         0.0081								
58         0.1200         0.0020         0.0014         N/A         0.0030           59         0.1200         0.0021         0.0014         N/A         0.0033           60         0.1500         0.0022         0.0015         N/A         0.0036           61         0.2000         0.0023         0.0015         N/A         0.0040           62         0.3250         0.0024         0.0016         N/A         0.0044           63         0.2500         0.0025         0.0017         N/A         0.0049           64         0.2500         0.0026         0.0018         N/A         0.0054           65         0.2500         0.0028         0.0018         N/A         0.0059           66         0.3500         0.0029         0.0019         N/A         0.0065           67         0.3500         0.0030         0.0020         N/A         0.0070           68         0.3000         0.0031         0.0021         N/A         0.0081           69         0.3000         0.0032         0.0022         N/A         0.0081								
59         0.1200         0.0021         0.0014         N/A         0.0033           60         0.1500         0.0022         0.0015         N/A         0.0036           61         0.2000         0.0023         0.0015         N/A         0.0040           62         0.3250         0.0024         0.0016         N/A         0.0044           63         0.2500         0.0025         0.0017         N/A         0.0049           64         0.2500         0.0026         0.0018         N/A         0.0054           65         0.2500         0.0028         0.0018         N/A         0.0059           66         0.3500         0.0029         0.0019         N/A         0.0065           67         0.3500         0.0030         0.0020         N/A         0.0070           68         0.3000         0.0031         0.0021         N/A         0.0081           69         0.3000         0.0032         0.0022         N/A         0.0081								
60       0.1500       0.0022       0.0015       N/A       0.0036         61       0.2000       0.0023       0.0015       N/A       0.0040         62       0.3250       0.0024       0.0016       N/A       0.0044         63       0.2500       0.0025       0.0017       N/A       0.0049         64       0.2500       0.0026       0.0018       N/A       0.0054         65       0.2500       0.0028       0.0018       N/A       0.0059         66       0.3500       0.0029       0.0019       N/A       0.0065         67       0.3500       0.0030       0.0020       N/A       0.0070         68       0.3000       0.0031       0.0021       N/A       0.0076         69       0.3000       0.0032       0.0022       N/A       0.0081								
61       0.2000       0.0023       0.0015       N/A       0.0040         62       0.3250       0.0024       0.0016       N/A       0.0044         63       0.2500       0.0025       0.0017       N/A       0.0049         64       0.2500       0.0026       0.0018       N/A       0.0054         65       0.2500       0.0028       0.0018       N/A       0.0059         66       0.3500       0.0029       0.0019       N/A       0.0065         67       0.3500       0.0030       0.0020       N/A       0.0070         68       0.3000       0.0031       0.0021       N/A       0.0076         69       0.3000       0.0032       0.0022       N/A       0.0081								
62       0.3250       0.0024       0.0016       N/A       0.0044         63       0.2500       0.0025       0.0017       N/A       0.0049         64       0.2500       0.0026       0.0018       N/A       0.0054         65       0.2500       0.0028       0.0018       N/A       0.0059         66       0.3500       0.0029       0.0019       N/A       0.0065         67       0.3500       0.0030       0.0020       N/A       0.0070         68       0.3000       0.0031       0.0021       N/A       0.0076         69       0.3000       0.0032       0.0022       N/A       0.0081								
63       0.2500       0.0025       0.0017       N/A       0.0049         64       0.2500       0.0026       0.0018       N/A       0.0054         65       0.2500       0.0028       0.0018       N/A       0.0059         66       0.3500       0.0029       0.0019       N/A       0.0065         67       0.3500       0.0030       0.0020       N/A       0.0070         68       0.3000       0.0031       0.0021       N/A       0.0076         69       0.3000       0.0032       0.0022       N/A       0.0081								
64       0.2500       0.0026       0.0018       N/A       0.0054         65       0.2500       0.0028       0.0018       N/A       0.0059         66       0.3500       0.0029       0.0019       N/A       0.0065         67       0.3500       0.0030       0.0020       N/A       0.0070         68       0.3000       0.0031       0.0021       N/A       0.0076         69       0.3000       0.0032       0.0022       N/A       0.0081								
65       0.2500       0.0028       0.0018       N/A       0.0059         66       0.3500       0.0029       0.0019       N/A       0.0065         67       0.3500       0.0030       0.0020       N/A       0.0070         68       0.3000       0.0031       0.0021       N/A       0.0076         69       0.3000       0.0032       0.0022       N/A       0.0081								
66       0.3500       0.0029       0.0019       N/A       0.0065         67       0.3500       0.0030       0.0020       N/A       0.0070         68       0.3000       0.0031       0.0021       N/A       0.0076         69       0.3000       0.0032       0.0022       N/A       0.0081								
67 0.3500 0.0030 0.0020 N/A 0.0070 68 0.3000 0.0031 0.0021 N/A 0.0076 69 0.3000 0.0032 0.0022 N/A 0.0081								
68 0.3000 0.0031 0.0021 N/A 0.0076 69 0.3000 0.0032 0.0022 N/A 0.0081								
69 0.3000 0.0032 0.0022 N/A 0.0081								

<sup>\* 100%</sup> probability of retirement is assumed at ages 62 and above with 38 or more years of service.



Table A-7: Rate of Separation From Active Service General Plans 1, 2, 4, 5 & 7 – Female

Age	Service Retirement*	Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations
18	0.0000	0.0003	0.0002	N/A	0.0002	0	0.1200
19	0.0000	0.0003	0.0002	N/A	0.0002	1	0.1000
20	0.0000	0.0003	0.0002	N/A	0.0002	2	0.0850
21	0.0000	0.0003	0.0002	N/A	0.0002	3	0.0750
22	0.0000	0.0003	0.0002	N/A	0.0002	4	0.0700
23	0.0000	0.0003	0.0002	N/A	0.0002	5	0.0633
24	0.0000	0.0003	0.0002	N/A	0.0002	6	0.0567
25	0.0000	0.0003	0.0002	N/A	0.0002	7	0.0500
26	0.0000	0.0003	0.0002	N/A	0.0002	8	0.0455
27	0.0000	0.0003	0.0002	N/A	0.0002	9	0.0410
28	0.0000	0.0003	0.0002	N/A	0.0002	10	0.0365
29	0.0000	0.0003	0.0002	N/A	0.0002	11	0.0320
30	0.0000	0.0004	0.0002	N/A	0.0002	12	0.0275
31	0.0000	0.0004	0.0002	N/A	0.0002	13	0.0270
32	0.0000	0.0004	0.0002	N/A	0.0002	14	0.0265
33	0.0000	0.0004	0.0003	N/A	0.0003	15	0.0260
34 35	0.0000	0.0004 0.0005	0.0003	N/A N/A	0.0003 0.0003	16 17	0.0255 0.0250
36	0.0000 0.0000	0.0005	0.0003 0.0003	N/A N/A	0.0003	18	0.0230
36 37	0.0000	0.0005	0.0003	N/A N/A	0.0004	19	0.0230
38	0.0000	0.0006	0.0004	N/A	0.0004	20	0.0210
39	0.0000	0.0006	0.0004	N/A	0.0005	21	0.0170
40	0.0000	0.0007	0.0004	N/A	0.0006	22	0.0170
41	0.0000	0.0007	0.0004	N/A	0.0006	23	0.0140
42	0.0000	0.0007	0.0005	N/A	0.0006	24	0.0130
43	0.0000	0.0008	0.0005	N/A	0.0007	25	0.0120
44	0.0000	0.0008	0.0006	N/A	0.0008	26	0.0110
45	0.0000	0.0010	0.0006	N/A	0.0009	27	0.0100
46	0.0000	0.0010	0.0007	N/A	0.0009	28	0.0100
47	0.0000	0.0011	0.0007	N/A	0.0010	29	0.0100
48	0.0000	0.0013	0.0009	N/A	0.0011	30 & Above	0.0000
49	0.0000	0.0015	0.0010	N/A	0.0012		
50	0.0400	0.0017	0.0012	N/A	0.0013		
51	0.0400	0.0019	0.0013	N/A	0.0014		
52	0.0400	0.0022	0.0014	N/A	0.0016		
53	0.0400	0.0023	0.0015	N/A	0.0017		
54	0.0500	0.0023	0.0016	N/A	0.0018		
55	0.0600	0.0025	0.0016	N/A	0.0020		
56	0.0600	0.0025	0.0017	N/A	0.0021		
57	0.0800	0.0026	0.0018	N/A	0.0023		
58	0.1200	0.0027	0.0018	N/A	0.0025		
59	0.1200	0.0028	0.0018	N/A	0.0028		
60	0.1500	0.0029	0.0019	N/A	0.0030		
61	0.2000	0.0029	0.0020	N/A	0.0033		
62	0.3000	0.0030	0.0020	N/A N/A	0.0036		
63 64	0.2500 0.2500	0.0030 0.0030	0.0020 0.0020	N/A N/A	0.0039 0.0043		
65	0.3000	0.0030	0.0020	N/A N/A	0.0043		
66	0.4000	0.0030	0.0020	N/A	0.0050		
67	0.4000	0.0030	0.0020	N/A	0.0054		
68	0.3000	0.0030	0.0020	N/A	0.0058		
69	0.3000	0.0030	0.0020	N/A	0.0062		
70	1.0000	0.0000	0.0000	N/A	0.0000		

 $<sup>^{\</sup>star}$  100% probability of retirement is assumed at ages 62 and above with 38 or more years of service.



Table A-8: Rate of Separation From Active Service General Plan 3 – Male

Age	Service Retirement	Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations
18	0.0000	N/A	N/A	N/A	0.0003	0	0.1300
19	0.0000	N/A	N/A	N/A	0.0003	1	0.1100
20	0.0000	N/A	N/A	N/A	0.0003	2	0.0900
21	0.0000	N/A	N/A	N/A	0.0003	3	0.0800
22	0.0000	N/A	N/A	N/A	0.0003	4	0.0700
23	0.0000	N/A	N/A	N/A	0.0003	5	0.0633
24	0.0000	N/A	N/A	N/A	0.0004	6	0.0567
25	0.0000	N/A	N/A	N/A	0.0004	7	0.0500
26	0.0000	N/A	N/A	N/A	0.0004	8	0.0470
27	0.0000	N/A	N/A	N/A	0.0004	9	0.0440
28	0.0000	N/A	N/A	N/A	0.0004	10	0.0410
29	0.0000	N/A	N/A	N/A	0.0004	11	0.0380
30	0.0000	N/A	N/A	N/A	0.0004	12	0.0350
31	0.0000	N/A	N/A	N/A	0.0004	13	0.0330
32	0.0000	N/A	N/A	N/A	0.0004	14	0.0310
33	0.0000	N/A	N/A	N/A	0.0004	15	0.0290
34	0.0000	N/A	N/A	N/A	0.0005	16	0.0270
35	0.0000	N/A	N/A	N/A	0.0006	17	0.0250
36	0.0000	N/A	N/A	N/A	0.0006	18	0.0230
37	0.0000	N/A	N/A	N/A	0.0007	19	0.0210
38	0.0000	N/A	N/A	N/A	0.0008	20	0.0190
39	0.0000	N/A	N/A	N/A	0.0008	21	0.0170
40	0.0000	N/A	N/A	N/A	0.0009	22	0.0150
41	0.0000	N/A	N/A	N/A	0.0010	23	0.0140
42	0.0000	N/A	N/A	N/A	0.0010	24	0.0130
43	0.0000	N/A	N/A	N/A	0.0011	25	0.0120
44	0.0000	N/A	N/A	N/A	0.0011	26	0.0110
45	0.0000	N/A	N/A	N/A	0.0012	27	0.0100
46	0.0000	N/A	N/A	N/A	0.0013	28	0.0100
47	0.0000	N/A	N/A	N/A	0.0014	29	0.0100
48	0.0000	N/A	N/A	N/A	0.0015	30 & Above	0.0100
49	0.0000	N/A	N/A	N/A	0.0016		
50	0.0000	N/A	N/A	N/A	0.0017		
51	0.0000	N/A	N/A	N/A	0.0019		
52	0.0000	N/A	N/A	N/A	0.0020		
53	0.0000	N/A	N/A	N/A	0.0021		
54	0.0000	N/A	N/A	N/A	0.0023		
55	0.0300	N/A	N/A	N/A	0.0024		
56	0.0300	N/A	N/A	N/A	0.0026		
57	0.0300	N/A	N/A	N/A	0.0028		
58	0.0300	N/A	N/A	N/A	0.0030		
59	0.0300	N/A	N/A	N/A	0.0033		
60	0.0300	N/A	N/A	N/A	0.0036		
61	0.0600	N/A	N/A	N/A	0.0040		
62 63	0.1500	N/A	N/A N/A	N/A	0.0044 0.0049		
63 64	0.1000 0.1500	N/A N/A	N/A N/A	N/A N/A	0.0049		
65	0.3000	N/A N/A	N/A N/A	N/A N/A	0.0054		
66	0.3000	N/A N/A	N/A N/A	N/A N/A	0.0059		
67	0.3000	N/A N/A	N/A N/A	N/A N/A	0.0065		
68	0.3000	N/A N/A	N/A N/A	N/A N/A	0.0076		
69	0.3000	N/A	N/A	N/A	0.0076		
70	1.0000	N/A	N/A	N/A	0.0001		
, ,	1.0000	14//1	14//1	14// 1	0.0000		



Table A-9: Rate of Separation From Active Service General Plan 3 – Female

Age	Service Retirement	Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations
18	0.0000	N/A	N/A	N/A	0.0002	0	0.1200
19	0.0000	N/A	N/A	N/A	0.0002		
20	0.0000	N/A	N/A	N/A	0.0002	2	0.1000 0.0850
21	0.0000	N/A	N/A	N/A	0.0002	3	0.0750
22	0.0000	N/A	N/A	N/A	0.0002	4	0.0700
23	0.0000	N/A	N/A	N/A	0.0002	5	0.0633
24	0.0000	N/A	N/A	N/A	0.0002	6	0.0567
25	0.0000	N/A	N/A	N/A	0.0002	7	0.0500
26	0.0000	N/A	N/A	N/A	0.0002	8	0.0455
27	0.0000	N/A	N/A	N/A	0.0002	9	0.0410
28	0.0000	N/A	N/A	N/A	0.0002	10	0.0365
29	0.0000	N/A	N/A	N/A	0.0002	11	0.0320
30	0.0000	N/A	N/A	N/A	0.0002	12	0.0275
31	0.0000	N/A	N/A	N/A	0.0002	13	0.0270
32	0.0000	N/A	N/A	N/A	0.0002	14	0.0265
33	0.0000	N/A	N/A	N/A	0.0003	15	0.0260
34	0.0000	N/A	N/A	N/A	0.0003	16	0.0255
35	0.0000	N/A	N/A	N/A	0.0003	17	0.0250
36	0.0000	N/A	N/A	N/A	0.0004	18	0.0230
37	0.0000	N/A	N/A	N/A	0.0004	19	0.0210
38	0.0000	N/A	N/A	N/A	0.0005	20	0.0190
39	0.0000	N/A	N/A	N/A	0.0005	21	0.0170
40	0.0000	N/A	N/A	N/A	0.0006	22	0.0150
41	0.0000	N/A	N/A	N/A	0.0006	23	0.0140
42	0.0000	N/A	N/A	N/A	0.0006	24	0.0130
43	0.0000	N/A	N/A	N/A	0.0007	25	0.0120
44	0.0000	N/A	N/A	N/A	0.0008	26	0.0110
45	0.0000	N/A	N/A	N/A	0.0009	27	0.0100
46	0.0000	N/A	N/A	N/A	0.0009	28	0.0100
47	0.0000	N/A	N/A	N/A	0.0010	29	0.0100
48	0.0000	N/A	N/A	N/A	0.0010	30 & Above	0.0100
49	0.0000	N/A	N/A	N/A	0.0011	00 07 10000	0.0100
50	0.0000	N/A	N/A	N/A	0.0012		
51	0.0000	N/A	N/A	N/A	0.0014		
52	0.0000	N/A	N/A	N/A	0.0014		
53	0.0000	N/A	N/A	N/A	0.0017		
54	0.0000	N/A	N/A	N/A	0.0017		
55	0.0400	N/A	N/A	N/A	0.0020		
56	0.0400	N/A	N/A	N/A	0.0020		
57	0.0400	N/A	N/A	N/A	0.0021		
58	0.0400	N/A	N/A	N/A	0.0025		
59	0.0400	N/A	N/A	N/A	0.0028		
60	0.0400	N/A	N/A	N/A	0.0020		
61	0.0600	N/A	N/A	N/A	0.0033		
62	0.1500	N/A	N/A	N/A	0.0036		
63	0.1000	N/A	N/A	N/A	0.0039		
64	0.1500	N/A	N/A	N/A	0.0039		
65	0.3000	N/A	N/A	N/A	0.0043		
66	0.3000	N/A N/A	N/A N/A	N/A N/A	0.0050		
67	0.3000	N/A	N/A	N/A	0.0054		
68	0.3000	N/A N/A	N/A N/A	N/A N/A	0.0054		
69	0.3000	N/A N/A	N/A N/A	N/A N/A	0.0056		
70	1.0000	N/A N/A	N/A N/A	N/A N/A	0.0062		
70	1.0000	IN/A	IN/A	IN/A	0.0000		



Table A-10: Rate of Separation From Active Service Safety & Probation Plans – Male

	Plans 1, 2, 4 Service	Plans 5, 6, 7 Service	Service	Ordinary	Service	Ordinary	Years of	Other
Age	Retirement*	Retirement**	Disability	Disability	Death	Death	Service	Terminations
18	0.0000	0.0000	0.0015	0.0000	0.0010	0.0003	0	0.0700
19	0.0000	0.0000	0.0015	0.0000	0.0010	0.0003	1	0.0650
20	0.0000	0.0000	0.0015	0.0000	0.0010	0.0003	2	0.0450
21	0.0000	0.0000	0.0015	0.0000	0.0010	0.0003	3	0.0300
22	0.0000	0.0000	0.0015	0.0000	0.0010	0.0003	4	0.0250
23	0.0000	0.0000	0.0015	0.0000	0.0010	0.0003	5 6	0.0233
24	0.0000	0.0000	0.0015	0.0000	0.0010	0.0004		0.0217
25	0.0000	0.0000	0.0015	0.0000	0.0010	0.0004	7	0.0200
26	0.0000	0.0000	0.0015	0.0000	0.0010	0.0004	8	0.0185
27	0.0000	0.0000	0.0015	0.0000	0.0010	0.0004	9	0.0170
28	0.0000	0.0000	0.0016	0.0000	0.0010	0.0004	10	0.0155
29	0.0000	0.0000	0.0017	0.0000	0.0010	0.0004	11	0.0140
30	0.0000	0.0000	0.0018	0.0000	0.0010	0.0004	12	0.0125
31	0.0000	0.0000	0.0019	0.0000	0.0010	0.0004	13	0.0120
32	0.0000	0.0000	0.0020	0.0000	0.0010	0.0004	14	0.0115
33	0.0000	0.0000	0.0021	0.0000	0.0010	0.0004	15	0.0110
34	0.0000	0.0000	0.0022	0.0000	0.0010	0.0005	16	0.0105
35	0.0000	0.0000	0.0023	0.0000	0.0010	0.0006	17	0.0100
36	0.0000	0.0000	0.0024	0.0000	0.0010	0.0006	18	0.0080
37	0.0000	0.0000	0.0025	0.0000	0.0010	0.0007	19	0.0060
38	0.0000	0.0000	0.0026	0.0000	0.0010	0.0008	20 & Above	0.0000
39	0.0000	0.0000	0.0027	0.0000	0.0010	0.0008		
40	0.0000	0.0000	0.0028	0.0000	0.0010	0.0009		
41	0.0000	0.0000	0.0029	0.0000	0.0010	0.0010		
42	0.0000	0.0000	0.0030	0.0000	0.0010	0.0010		
43	0.0000	0.0000	0.0031	0.0000	0.0010	0.0011		
44	0.0000	0.0000	0.0032	0.0000	0.0010	0.0011		
45	0.0000	0.0000	0.0033	0.0000	0.0010	0.0012		
46	0.0000	0.0000	0.0034	0.0000	0.0010	0.0013		
47	0.0000	0.0000	0.0035	0.0000	0.0010	0.0014		
48	0.0000	0.0000	0.0038	0.0000	0.0010	0.0015		
49	0.0000	0.0000	0.0041	0.0000	0.0010	0.0016		
50	0.1500	0.0500	0.0044	0.0000	0.0010	0.0017		
51	0.1500	0.0500	0.0047	0.0000	0.0010	0.0019		
52	0.1500	0.0500	0.0050	0.0000	0.0010	0.0020		
53	0.2000	0.0500	0.0064	0.0000	0.0010	0.0021		
54	0.1300	0.1000	0.0078	0.0000	0.0010	0.0023		
55	0.3000	0.3000	0.0092	0.0000	0.0010	0.0024		
56	0.2500	0.3000	0.0106	0.0000	0.0010	0.0026		
57	0.2000	0.3000	0.0120	0.0000	0.0010	0.0028		
58	0.2500	0.3000	0.0108	0.0000	0.0010	0.0030		
59	0.2500	0.3000	0.0096	0.0000	0.0010	0.0033		
60	1.0000	1.0000	0.0000	0.0000	0.0000	0.0000		

<sup>\* 100%</sup> probability of retirement is assumed at ages 50 and above with 33 or more years of service for Safety and Probation Plans 1, 2, and 4.



<sup>\*\* 100%</sup> probability of retirement is assumed at ages 55 and above with 33 or more years of service for Safety and Probation Plan 5, and at ages 55 and above with 38 or more years of service for Safety and Probation Plan 6.

Table A-11: Rate of Separation From Active Service Safety & Probation Plans – Female

Age	Plans 1, 2, 4 Service Retirement*	Plans 5, 6, 7 Service Retirement**	Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations
	0.0000		0.0015	0.0000		0.0002		0.0700
18	0.0000	0.0000 0.0000	0.0015	0.0000	0.0010 0.0010	0.0002	0	0.0700
19	0.0000	0.0000	0.0015	0.0000	0.0010	0.0002	1	0.0650
20	0.0000	0.0000	0.0015	0.0000	0.0010	0.0002	2	0.0450
21							3	
22	0.0000	0.0000	0.0015	0.0000	0.0010	0.0002	4	0.0250
23	0.0000	0.0000	0.0015	0.0000	0.0010	0.0002	5	0.0233
24	0.0000	0.0000	0.0015	0.0000	0.0010	0.0002	6	0.0217
25	0.0000	0.0000	0.0015	0.0000	0.0010	0.0002	7	0.0200
26	0.0000	0.0000	0.0015	0.0000	0.0010	0.0002	8	0.0185
27	0.0000	0.0000	0.0015	0.0000	0.0010	0.0002	9	0.0170
28	0.0000	0.0000	0.0016	0.0000	0.0010	0.0002	10	0.0155
29	0.0000	0.0000	0.0017	0.0000	0.0010	0.0002	11	0.0140
30	0.0000	0.0000	0.0018	0.0000	0.0010	0.0002	12	0.0125
31	0.0000	0.0000	0.0019	0.0000	0.0010	0.0002	13	0.0120
32	0.0000	0.0000	0.0020	0.0000	0.0010	0.0002	14	0.0115
33	0.0000	0.0000	0.0021	0.0000	0.0010	0.0003	15	0.0110
34	0.0000	0.0000	0.0022	0.0000	0.0010	0.0003	16	0.0105
35	0.0000	0.0000	0.0023	0.0000	0.0010	0.0003	17	0.0100
36	0.0000	0.0000	0.0024	0.0000	0.0010	0.0004	18	0.0080
37	0.0000	0.0000	0.0025	0.0000	0.0010	0.0004	19	0.0060
38	0.0000	0.0000	0.0026	0.0000	0.0010	0.0005	20 & Above	0.0000
39	0.0000	0.0000	0.0027	0.0000	0.0010	0.0005		
40	0.0000	0.0000	0.0028	0.0000	0.0010	0.0006		
41	0.0000	0.0000	0.0029	0.0000	0.0010	0.0006		
42	0.0000	0.0000	0.0030	0.0000	0.0010	0.0006		
43	0.0000	0.0000	0.0031	0.0000	0.0010	0.0007		
44	0.0000	0.0000	0.0032	0.0000	0.0010	0.0008		
45	0.0000	0.0000	0.0033	0.0000	0.0010	0.0009		
46	0.0000	0.0000	0.0034	0.0000	0.0010	0.0009		
47	0.0000	0.0000	0.0035	0.0000	0.0010	0.0010		
48	0.0000	0.0000	0.0038	0.0000	0.0010	0.0011		
49	0.0000	0.0000	0.0041	0.0000	0.0010	0.0012		
50	0.1500	0.0500	0.0044	0.0000	0.0010	0.0013		
51	0.1500	0.0500	0.0047	0.0000	0.0010	0.0014		
52	0.1500	0.0500	0.0050	0.0000	0.0010	0.0016		
53	0.2000	0.0500	0.0064	0.0000	0.0010	0.0017		
54	0.1300	0.1000	0.0078	0.0000	0.0010	0.0018		
55	0.3000	0.3000	0.0092	0.0000	0.0010	0.0020		
56	0.2500	0.3000	0.0106	0.0000	0.0010	0.0021		
57	0.2000	0.3000	0.0120	0.0000	0.0010	0.0023		
58	0.2500	0.3000	0.0108	0.0000	0.0010	0.0025		
59	0.2500	0.3000	0.0096	0.0000	0.0010	0.0028		
60	1.0000	1.0000	0.0000	0.0000	0.0000	0.0000		

<sup>\* 100%</sup> probability of retirement is assumed at ages 50 and above with 33 or more years of service.

<sup>\*\* 100%</sup> probability of retirement is assumed at ages 55 and above with 33 or more years of service for Safety and Probation Plan 5, and at ages 55 and above with 38 or more years of service for Safety and Probation Plan 6.

#### Appendix B: Summary of Benefit Provisions



All actuarial calculations are based on our understanding of the statutes governing the SamCERA as contained in the County Employees Retirement Law (CERL) of 1937, with provisions adopted by the SamCERA Board, effective through June 30, 2010. The benefit and contribution provisions of this law are summarized briefly below, along with corresponding references to the Code Section. This summary does not attempt to cover all the detailed provisions of the law.

#### **MEMBERSHIP IN RETIREMENT PLANS**

The County has established 12 defined benefit plans based on a member's date of entry into SamCERA. Plans 1, 2, 4, 5, 6, and 7 are open to all members depending on their date of entry. Only General members are eligible for Plan 3.

Government Code Section

Employees of the Mosquito and Vector Control District are eligible for participation in all General retirement plans, except for Plan 3.

- **Plan 1:** Employees hired on or before July 6, 1980.
- **Plan 2:** Employees hired after July 6, 1980 but on or before July 12, 1997.
- Plan 3: General members hired on or before December 22, 2012 may elect to participate in Plan 3. After five years of service, Plan 3 members can elect membership under the open contributory plan. Members currently working in a contributory plan with Plan 3 service may purchase an upgrade of their Plan 3 service.

(31496)

- Plan 4: Employees hired after July 12, 1997 and before August 7, 2011 (General members, except Plan 5 transfers; see below); before July 10, 2012 (Probation members); and before January 8, 2012 (Safety members).
- Plan 5: General members hired on or after August 7, 2011, and Deputy Sheriffs hired on or after January 8, 2012. Probation members hired on or after July 10, 2011 and Safety members (except Deputy Sheriffs) hired on or after January 8, 2012 may elect this Plan. Members must be first hired before January 1, 2013 to be eligible to elect this Plan.

After 10 years of service, General Plan 5 members can elect to transfer to Plan 4 and must pay the total actuarial equivalent cost of the increase in past service benefits at the date of transfer.

- Plan 6: Probation members hired on or after July 10, 2011 and Safety members (except Deputy Sheriffs) hired on or after January 8, 2012 may elect this Plan. Members must be first hired before January 1, 2013 to be eligible to elect this Plan.
- **Plan 7:** Employees first hired on or after January 1, 2013.



#### **MEMBER CONTRIBUTIONS**

#### Basic:

Plans 1, 2, 4, 5, & 6:

Contributions are based on the entry age and class of each member and are required of all members. See section 5 for details on this calculation. Current member rates are shown in Appendix D.

Contributions cease when general members are credited with 30 years of service in a contributory plan provided they were members of SamCERA or a reciprocal system on March 7, 1973, and continuously thereafter. All safety members are eligible for the 30-year cessation of contributions. This provision does not apply to cost-sharing contributions.

(31625.2, 31664.1)

Plan 7:

Members contribute 50% of the aggregate Normal Cost

rate for their Plan.

Plan 3:

No member contributions are required under Plan 3.

#### **Cost-of-Living:**

Plans 1, 2, & 4:

Members of the California Nurses Association (CNA), the Union of American Physicians and Dentists (UAPD), and the Probation and Detention Association (PDA) in Plans 1, 2, and 4 contribute 25% of the cost of the COLA, in addition to other current member rates and cost sharing.

General members (County and Courts) who rehire on or after August 7, 2011, Probation members who rehire on or after July 10, 2011, and Safety members who rehire on or after January 8, 2012 into Plans 1, 2, and 4 contribute 50% of the cost of COLA, in addition to other current member rates and cost sharing.

No other Plan 1, 2 & 4 members contribute towards the COLA benefit.

Plans 5 & 6:

All members of Plans 5 and 6 contribute 50% of the cost of the COLA, in addition to other current member rates and cost sharing.

Plan 7:

Members contribute 50% of the aggregate Normal Cost rate for their Plan.



#### **MEMBER CONTRIBUTIONS** (Continued)

**Cost Sharing:** 

**General Members:** All members of Plans 1, 2, and 4 (except SMCM&VCD)

(31678.2)

contribute an additional 3.0% for cost sharing.

All other General members do not participate in cost

sharing.

**Safety Members:** Deputy Sheriffs in Plans 1, 2, 4, and 5 contribute the

following additional cost sharing rates based on age and

service:

If age 45 or older 4.5%

If age is less than 45

Service is less than 5 years: 3.0%
Service between 5 & 15 years: 3.5%
Service is more than 15 years 4.5%

Safety members (except Deputy Sheriffs) in Plans 1, 2, and 4 contribute an additional 5.0% cost sharing.

Safety members (except Deputy Sheriffs) in Plan 5 contribute an additional 4.0% cost sharing.

Safety members in Plan 6 and 7 do not participate in cost

sharing.

**Probation Members:** Members of Plans 1, 2, 4, and 5 contribute an additional

3.5% for cost sharing.

Members of Plans 6 and 7 do not participate in cost

sharing.

**Interest Crediting:** Interest is credited to contributions semiannually on

June 30 and December 31 at an interest rate set by the

Board of Retirement on amounts that have been on

deposit for at least six months.



(31591, 31700)

(31581.2)

(31678.2)

(31639.85)

#### **MEMBER CONTRIBUTIONS** (Continued)

#### **Employer Pick-Up:**

General members: The County provides a variety of refundable service-

based employer pick-up of contribution programs for

members in several of its unions.

Employer rates have not been adjusted to reflect the payment of the refundable employer pick-up of member contributions programs because the county payroll system captures these costs on a pay-as-you-go basis

while processing each individual's biweekly pay.

The County provides a variety of refundable service-Safety members:

based employer pick-up of contribution programs for

members in several of its unions.

Employer rates have not been adjusted to reflect the payment of the refundable employer pick-up of member contributions programs because the county payroll system captures these costs on a pay-as-you-go basis while processing each individual's biweekly pay.

**Probation members:** The County provides a variety of refundable service-

based employer pick-up of contribution programs for

members in several of its unions.

Employer rates have been adjusted to reflect the 20% non-refundable County pick-up, effective April 2006.

#### **EMPLOYER CONTRIBUTIONS**

The employer (County or district) contributes to the retirement fund a percent of the total compensation provided for all members based on an actuarial investigation, valuation and recommendation of the actuary.

(31453, 31453.5, 31453.6, 31454 31581)



#### **SERVICE RETIREMENT ALLOWANCE**

ΕI	ia	ih	il	it۱	<b>/</b> :

**General Members:** All members of Plans 1, 2, 4, and 5 are eligible to retire

(31672)

(31496)

(31663.25)

after meeting one of the following age and service

requirements:

Age 50 with 10 years of service\*;

• Any age with 30 years of service; or

Age 70 regardless of service.

Plan 3 members are eligible to retire at age 65 with 10

years of service. A reduced benefit is also payable at age 55 with 10 years of service.

Plan 7 members are eligible to retire at age 52 with 5

years of service.

Safety and Probation Members:

Members of all plans except Plan 7 are eligible to retire

after meeting one of the following age and service

requirements:

Age 50 with 10 years of service\*;

Any age with 20 years of service.

Plan 7 members are eligible to retire at age 50 with 5

vears of service.

\* For part-time employees, age 50 is replaced with age 55.

(31672.1)

Final

**Compensation:** 

Plans 1 & 2: Monthly average of a member's highest 12 consecutive

months of compensation.

(31462.1)

All other Plans: Monthly average of a member's highest compensation

during any three years. Years do not have to be

consecutive, except for Plan 7.

[31462, 31496.3(d)]

(31671)

Compensation

Limit:

All Plans, except

Plan 7:

The amount of compensation that is taken into account in

computing benefits payable to any person who first

becomes a member on or after July 1, 1996, shall not exceed the dollar limitations in Section 401(a)(17) of Title

26 of the US Code.



#### **SERVICE RETIREMENT ALLOWANCE** (Continued)

#### Plan 7:

The amount of compensation taken into account shall not exceed the following applicable percentage of the Social Security Taxable Wage Base:

- 100% for a member covered by Social Security (County and Courts General members);
- 120% for a member not covered by Social Security (all other members).

The amount of compensation taken into account shall be adjusted based on changes in the Consumer Price Index for All Urban Consumers. Adjustments shall be effective annually on January 1.

#### **Monthly**

#### Allowance:

Plans 1, 2, 4, & 5: General members:

(31676.14)

1/60 x Final Compensation x General age factor x years (31676.1)

of service.

Safety & Probation members:

(31664.1)

3% x Final Compensation x Safety age factor x years of (31664.2)

service.

Plan 6: Safety & Probation members:

(31664)

2% x Final Compensation x Safety age factor x years of

service.

Plan 7: General members:

2% x Final Compensation x General age factor x years of

service.

**Safety and Probation members:** 

2% x Final Compensation x Safety age factor x years of

service.



#### **SERVICE RETIREMENT ALLOWANCE** (Continued)

#### Plan 3: General members: (a)+(b)-(c) where:

(31496)

- (a) 2% x Final Compensation x (Years of Service, (up to 35 years), plus
- (b) 1 % x Final Compensation x Years of Service in excess of 35 (up to 10)
- (c) Estimated Primary Insurance Amount (PIA) x Years of Covered Service (up to 35) divided by 35.

The PIA is calculated based on certain assumptions specified by statute, and an assumed Social Security retirement age of 65.

If retirement occurs prior to age 65, benefit amount is adjusted by an actuarial equivalent factor (see Sample Plan Age Factors).

#### Percentage of Final Average Compensation at Sample Ages:

Plan	Age 50	Age 55	Age 60	Age 65	
County General 1,2&4	1.475%	1.948%	2.440%	2.611%	(31676.14)
SMCM&VCD*	1.475%	1.948%	2.440%	2.611%	(31676.14)
General Plan 3**	N/A	0.780%	1.220%	2.000%	(31496)
General Plan 5	1.182%	1.492%	1.917%	2.432%	(31676.1)
General Plan 7	N/A	1.300%	1.800%	2.300%	
Safety/Probation 1,2,&4	3.000%	3.000%	3.000%	3.000%	(31664.1)
Safety/Probation Plan 5	2.290%	3.000%	3.000%	3.000%	(31664.2)
Safety/Probation Plan 6	2.000%	2.620%	2.620%	2.620%	(31664)
Safety/Probation Plan 7	2.000%	2.500%	2.700%	2.700%	

<sup>\*</sup> As of the June 30, 2010 actuarial valuation, SMCM&VCD has adopted the same benefit structure as County General.



<sup>\*\*</sup> Prior to reduction for PIA benefit. Actual percentage will be less.

#### **SERVICE RETIREMENT ALLOWANCE** (Continued)

<u>Maximum</u>

Allowance:

All Plans Except 3: Allowance may not exceed 100% of final compensation.

**Plan 3:** The sum of the normal retirement allowance and the

(31496)

estimated PIA cannot exceed 70% of Final Compensation for a member with 35 or less years of service, and cannot exceed 80% of Final Compensation if service exceeds 35

years.

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

All Plans Except 3: Life Annuity payable to retired member with 60%

(31760.1)

Plan 3: Life Annuity payable to retired member with 50%

continuance to an eligible survivor (or eligible children).

continuance to an eligible survivor (or eligible children).

(31497.71)

Eligible survivor includes certain domestic partners.

(31780.2)

**Optional Retirement Allowance:** 

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

**Option 1:** Member's allowance is reduced to pay a cash refund of

(31761)

any unpaid annuity payments (up to the amount of the member's contributions at retirement) to the member's estate or to a beneficiary having an insurable interest in

the life of the member.

**Option 2:** 100% of member's reduced allowance is payable to an

(31762)

eligible survivor or beneficiary having an insurable

interest in the life of the member.

**Option 3:** 50% of member's reduced allowance is payable to an

(31763)

eligible survivor or beneficiary having an insurable

interest in the life of the member.

**Option 4:** Other % of member's reduced allowance is payable to an

(31764)

eligible survivor or beneficiary(ies) having an insurable

interest in the life of the member.

For Options 2, 3 or 4, the continuance will not be paid if the member revokes (3178)

their election and names another beneficiary after retirement.

, ...., ...., ...., ....., ......

(31782)

(31600)

All allowances are made on a pro rata basis (based on

the number of days in that month) if not in effect for the entire month of retirement. For deaths that occur mid-

month, the full month's payment is made.



#### SERVICE-CONNECTED DISABILITY RETIREMENT ALLOWANCE

**Eligibility:** 

**All Plans Except 3:** Any age or years of service; disability must result from

occupational injury or disease, and member must be permanently incapacitated for the performance of duty.

31720.7, 31720.9)

(31487)

(31720,

31720.5,

31720.6,

Plan 3: Not available under Plan 3.

Monthly Allowance: Greater of (1) 50% of final compensation, and (2) the (31727.4)

service retirement allowance, if eligible to retire.

(31760, 31786)

**Normal Form Of** Payment:

Life Annuity with 100% continuance to a surviving spouse

(or eligible children).

#### RECIPROCAL SERVICE-CONNECTED DISABILITY ALLOWANCE

**Eligibility:** 

**All Plans Except 3:** Any member regardless of age or years of service who (31837)

> leaves their accumulated contributions on deposit and receives a disability retirement allowance from CalPERS or another '37 Act system. The member must be eligible for a reciprocal benefit and the disability must be service-

connected.

Plan 3: Not available under Plan 3.

**Monthly Allowance:** Same as nonservice-connected disability, but in no case (31837,

shall the allowance be greater than if all service was with 31838.5)

one entity.

**Normal Form of** 

Life Annuity with 100% continuance to a surviving spouse (31760, 31786)

Payment: (or eligible children).



#### NONSERVICE-CONNECTED DISABILITY RETIREMENT ALLOWANCE

**Eligibility:** 

**All Plans Except 3:** Any age with five years of service and permanently

incapacitated for the performance of duty.

(31720, 31836)

Plan 3: Not available under Plan 3. (31487)

**Monthly Allowance:** The monthly allowance is equal to a service retirement

allowance if the member is eligible to retire, otherwise

(31726,31726.5)

allowance equals (a) or (b) where:

(a) 90% of 1/60th of Final Compensation x years of

service, if member must rely on service in another retirement system in order to be eligible to retire, or allowance exceeds 1/3 of final compensation.

(31727(a))

(b) 90% of 1/60th of Final Compensation x years of

service projected to age 65, not to exceed 1/3 of Final

(31727(b))

Compensation.

**Safety Members:** 1/60 is replaced by 1/50 and age 65 is replaced by age (31727.2)

55 in (a) and (b) above.

**Normal Form Of** 

General Members:

Payment:

Life Annuity with 60% continuance to a surviving spouse

(or eligible children).

(31760.1)

#### SERVICE-CONNECTED DEATH BENEFITS

**Eligibility** 

All Plans Except 3: Active members who die in service as a result of injury or

(31787)

disease arising out of and in the course of employment.

Plan 3. Not available under Plan 3. (31487)

(31787)

**Monthly Allowance:** An annual death allowance is payable monthly to an

eligible survivor (or eligible children) equal to 50% of the

member's Final Compensation.



#### **SERVICE-CONNECTED DEATH BENEFITS** (Continued)

#### **Optional Combined Benefit:**

(31781.3)

In lieu of the monthly allowance above, an eligible survivor may elect:

- (a) A lump sum equal to 1/12 of the compensation earned in the preceding 12 months x years of service (benefit not to exceed 50% of the 12 months' compensation), plus
- (b) A monthly payment equal to 50% of the member's Final Compensation, reduced by a monthly amount, which is the actuarial equivalent of (a) above based on the age of eligible survivor.

#### Death Benefit (Lump Sum):

(31781)

The member's normal contributions and interest, plus 1/12 of the compensation earned in the preceding 12 months x years of service (benefit not to exceed 50% of the 12 months' compensation).

#### **Additional Allowance for Children:**

(31787.5)

25% of death allowance (whether or not the monthly allowance or combined benefit is chosen) for one child, 40% for two children, and 50% for three or more children.

#### **Additional Amount for Spouse of Safety Member:**

(31787.6)

An eligible survivor of a safety member is also entitled to receive a lump-sum death benefit equal to 12 x monthly rate of compensation at the time of member's death in addition to all other benefits.

**Note:** For valuation purposes, an unmarried member is assumed to take the lump sum benefit. A married member is assumed to take the monthly allowance or the lump sum, whichever is more valuable.



#### **NONSERVICE-CONNECTED DEATH BENEFITS**

**Eligibility:** 

All Plans Except 3: Active members who die while in service or while

(31780)

physically or mentally incapacitated for the performance of

duty.

Plan 3: Not available under Plan 3.

#### **Death Benefit (Lump Sum):**

(31781)

The member's normal contributions and interest, plus 1/12 of the Compensation earned in preceding 12 months x the number of completed years of service (benefit not to exceed 50% of the 12 months' compensation).

#### **Optional Death Benefit:**

In lieu of the lump-sum death benefit, several optional death benefits are available to provide flexibility to survivors, as follows.

#### **First Optional Death Benefit:**

(31781.1)

If a member who would have been entitled to a nonservice-connected disability retirement allowance dies prior to retirement as a result of such disability, the eligible survivor (or eligible children) may elect to receive an optional death allowance equal to 60% of the monthly retirement allowance to which the member would have been entitled as of the date of death.

#### **Second Optional Death Benefit:**

(31781.2, 31765.2)

If a member dies prior to reaching the minimum retirement age but has 10 or more years of service, an eligible survivor (or eligible children) may elect to leave the amount of the death benefit on deposit until the earliest date the member could have retired and at that time receive the allowance provided for in 31765.2 (a 60% continuance).

#### **Third Optional Death Benefit:**

An eligible survivor of a member who dies after five years of service may elect a combined benefit equal to:

- (a) A lump sum equal to 1/12 of the compensation earnable in the preceding 12 months x the number of completed years of service (benefit not to exceed 50% of the 12 months' compensation), plus
- (b) A monthly payment equal to 60% of the monthly retirement allowance to which the member would have been entitled if the member retired or had been retired for a nonservice-connected disability as of the date of death, reduced by a monthly amount which is the actuarial equivalent of (a) above based on the age of the eligible survivor.



#### NONSERVICE-CONNECTED DEATH BENEFITS (Continued)

#### **Fourth Optional Death Benefit:**

If a member dies while eligible for a service retirement and the eligible survivor is designated as beneficiary, the spouse (or eligible children) may elect to receive 60% of the monthly retirement allowance to which the member would have been entitled as of the date of death.

(31765.1)

Note for Third and Fourth Optional Death Benefits: In order to leave the eligible survivor the greatest benefit, the member is assumed to have retired for nonservice-connected disability, elected the Option 2 retirement allowance, and then died the next day.

#### Fifth Optional Death Benefit:

If a member dies while eligible for a service retirement and the eligible survivor is designated as beneficiary and survives the member by not less than 30 days the spouse (or eligible children) may elect to receive the same retirement allowance as the spouse would have received had the member retired on the date of death and selected Option 3.

(31765)

**Note:** For valuation purposes, an unmarried member is assumed to take the lump sum benefit. A married member is assumed to receive an annuity or a lump-sum, whichever is more valuable. The annuity is equal to the Option 2-100% Continuance calculation for the larger of either (1) a non-service connected disability benefit or (2) the member's earned service retirement benefit (if eligible).



#### **DEFERRED VESTED BENEFITS**

**Eligibility:** 

All Plans, except Plans 3 and 7:

Age 50 with 10 years of membership.

(31700)

Member contributions must be left on deposit and the member must have terminated with five years of service or entered a reciprocal agency. Members are eligible for service retirement when they would have reached

eligibility if they would have remained in an active position.

Plan 3: Age 55 with 10 years of service.

(31496)

Plan 7: General members:

Age 52 with 5 years of service.

**Safety and Probation members:** Age 50 with 5 years of service.

All Plans: Member contributions must be left on deposit and the

member must have terminated with five years of service or entered a reciprocal agency. Members (except for Plan 7) are eligible for service retirement when they would have reached eligibility if they would have remained in an

active position.

**Monthly Allowance:** 

All Plans Except 3: Same as service retirement allowance; payable anytime

(31703, 31704,

31705)

(31702)

(31496)

after the member would have been eligible for service

retirement.

If a terminated member dies before the effective date of

the deferred retirement allowance, the member's

accumulated contributions are paid to the estate or to the

named beneficiary.

Plan 3: Same as service retirement allowance at normal

retirement age 65 or in an actuarially equivalent reduced

amount at early retirement, after age 55.

No benefit is paid for death while deferred.



31870.2)

#### **COST-OF-LIVING INCREASES**

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

Plan 1: General & Safety (31870.2)

Members (and their beneficiaries) are limited to a

maximum 5% cost-of-living increase.

**Probation** (31870.1)

Members (and their beneficiaries) are limited to a

maximum 3% cost-of-living increase.

**Plan 2:** All members (31870.1)

Members (and their beneficiaries) are limited to a

maximum 3% cost-of-living increase.

Plan 3: Plan 3 does not have a COLA. (31487)

Other Plans: All members (31870)

Members (and their beneficiaries) are limited to a

maximum 2% cost-of-living increase.

**COLA Bank** 

**Plan 1:** When the CPI exceeds the applicable percentage (3% or (31870.1,

5%), the difference between the actual CPI and the maximum cost-of-living increase given in any year is credited to the COLA Accumulation (COLA Bank). It may be used in future years to provide cost-of-living increases when the CPI falls below the applicable percentage.

Other Plans: All other Plans do not have a COLA bank. (31874.4)



#### Appendix C: Valuation Data and Schedules



Data on SamCERA membership as of June 30, 2013 was supplied to us by the system staff. On the following table, Exhibit C-1, we present a summary of SamCERA membership at June 30, 2013 for active members. Similar information is shown in Exhibit C-2 for deferred vested members and Exhibits C-3a and C-3b for retired members.

Note that salary amounts shown are annualized amounts based on the biweekly pay for the period prior to the valuation date. If the annualized amount was less than the total prior earnings, total prior year earnings were used.

Additional statistical data on both active and retired members is shown in the following tables.

Exhibit C-4: Age, Service, Compensation Distribution of Active

Members

Exhibit C-5: Age, Retirement Year, Benefit Amount and Plan

Distribution of Retired Members

Exhibits C-4 and C-5 are shown for all plans combined as well as for classification separately.



Exhibit C-1: SamCERA Membership – Active Members as of June 30, 2013

	Total			Average	N	verage lonthly	Average Credited	
	Number	A	nnual Salary	Age		Salary	Service	
General Members								
Plan 1	39	\$	3,792,810	61.7	\$	8,104	32.2	
Plan 2	938		82,785,077	53.8		7,355	22.1	
Plan 3	124		9,306,675	45.7		6,254	10.0	
Plan 4	2,667		213,197,377	45.2		6,662	8.7	
Plan 5	263		20,255,973	38.2		6,418	1.1	
Plan 7	142		9,257,723	35.0		5,433	0.3	
Total	4,173	\$	338,595,633	46.5	\$	6,762	11.2	
Safety Membe	ers							
Plan 1	3	\$	474,644	60.0	\$	13,185	31.7	
Plan 2	102	·	13,383,891	50.3	·	10,935	21.9	
Plan 4	290		32,717,308	42.9		9,402	8.8	
Plan 5	42		4,384,363	37.8		8,699	0.7	
Plan 6	1		148,493	43.0		12,374	0.6	
Plan 7	14		1,124,810	33.4		6,695	0.3	
Total	452	\$	52,233,510	43.9	\$	9,630	10.9	
Probation Me	mbers							
Plan 1	1	\$	79,410	62.0	\$	6,618	30.8	
Plan 2	64		5,717,982	47.7		7,445	20.4	
Plan 4	215		17,085,085	40.4		6,622	10.5	
Plan 5	8		503,262	28.6		5,242	0.9	
Plan 6	1		57,699	30.0		4,808	0.9	
Plan 7	3		278,727	34.3	_	7,742	0.1	
Total	292	\$	23,722,165	41.7	\$	6,770	12.3	
Grand Total	4,917	\$	414,551,308	46.0	\$	7,026	11.2	



Exhibit C-2: SamCERA Membership – Deferred Vested Members as of June 30, 2013

		Average
-	Number	Age
General Memb	pers	
Plan 1	21	60.3
Plan 2	417	51.5
Plan 3	108	53.8
Plan 4	647	45.9
Plan 5	5	45.6
Plan 7	1	40.0
Total	1,199	48.8
Safety Membe	ers	
Plan 1	1	62.0
Plan 2	29	48.4
Plan 4	42	44.6
Total	72	46.4
Probation Me	mbers	
Plan 1	_	-
Plan 2	11	44.4
Plan 4	23	40.6
Plan 6	1	32.0
Total	35	41.5
Grand Total	1,306	48.5



Exhibit C-3a: SamCERA Membership – Retired Members as of June 30, 2013

_	Number	Average Age	Monthly Allowance	erage y Benefit
General Memb	ers			
Plan 1 Plan 2 Plan 3 Plan 4	1,848 1,572 114 284	77.9 67.1 70.1 63.3	\$ 5,322,057 3,675,637 108,416 472,868	\$ 2,880 2,338 951 1,665
Total	3,818	72.1	\$ 9,578,979	\$ 2,509
Safety Member	rs			
Plan 1 Plan 2 Plan 4	284 140 20	70.9 58.8 54.1	\$ 1,762,631 881,957 74,560	\$ 6,206 6,300 3,728
Total	444	66.3	\$ 2,719,148	\$ 6,124
Probation Men	nbers			
Plan 1 Plan 2 Plan 4	72 51 13	69.6 61.0 64.9	\$ 356,899 214,032 28,799	\$ 4,957 4,197 2,215
Total	136	65.9	\$ 599,730	\$ 4,410
Grand Total	4,398	71.3	\$ 12,897,857	\$ 2,933



Exhibit C-3b: SamCERA Membership – Retired Members as of June 30, 2013 Subtotaled by Class and Retirement Type

Plan	Retirement Type	Number		Monthly Benefit		Average Monthly Benefit
General Plans:						
	Healthy	3,037	\$	8,027,279	\$	2,643
	Disabled	297		709,760		2,390
	Beneficiaries	484		841,941		1,740
	Total	3,818	\$	9,578,979	\$	2,509
Safety Plans:						
-	Healthy	284	\$	1,999,585	\$	7,041
	Disabled	91		465,419		5,114
	Beneficiaries	69		254,144	_	3,683
	Total	444	\$	2,719,148	\$	6,124
Probation Plans:						
	Healthy	125	\$	556,897	\$	4,455
	Disabled	5		16,255		3,251
	Beneficiaries	6		26,579		4,430
	Total	136	\$	599,730	\$	4,410
Grand Totals						
	Healthy	3,446	\$	10,583,760	\$	3,071
	Disabled	393		1,191,433		3,032
	Beneficiaries	559	_	1,122,664	_	2,008
	Total	4,398	\$	12,897,857	\$	2,933



Exhibit C-4: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2013
All Members

Count	7												
	Years of Service												
Age	0-1	1-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Count			
Under 25	25	8	0	0	0	0	0	0	0	33			
25-29	88	99	56	0	0	0	0	0	0	243			
30-34	72	161	239	48	0	0	0	0	0	520			
35-39	54	124	299	203	17	0	0	0	0	697			
40-44	29	93	249	262	116	18	0	0	0	767			
45-49	16	66	190	200	137	96	35	2	0	742			
50-54	19	55	145	178	110	114	80	17	0	718			
55-59	25	66	139	124	79	94	70	45	3	645			
60-64	11	30	106	90	45	51	30	21	12	396			
65 & Over	2	11	30	31	34	19	15	7	7	156			
Total Count	341	713	1,453	1,136	538	392	230	92	22	4,917			

#### Compensation

	Years of Service											
Age	0-1	1-2	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Comp.		
Under 25	54,371	49,044			_	_				53,079		
	,	,	-	-	-	-	-	-	-	,		
25-29	62,385	67,102	66,274	-	-	-	-	-	-	65,203		
30-34	70,771	78,744	77,593	67,800	-	-	-	-	-	76,101		
35-39	80,833	84,372	80,896	83,777	78,990	-	-	-	-	82,302		
40-44	92,644	87,302	85,066	85,227	89,416	77,155	-	-	-	86,151		
45-49	98,525	91,067	85,208	91,569	92,495	90,918	102,032	73,227	-	90,576		
50-54	84,585	89,907	81,267	82,092	90,877	90,505	93,625	86,742	-	86,667		
55-59	87,750	92,129	82,576	81,651	92,765	92,617	90,136	97,146	95,163	88,183		
60-64	72,573	85,476	83,929	79,959	89,010	94,817	95,601	86,328	87,117	85,916		
65 & Over	79,132	112,673	77,517	85,652	88,272	76,936	98,570	79,911	103,783	87,217		
Avg. Annual Compensation	74,282	82,937	81,417	84,061	90,555	90,403	94,423	90,923	93,517	84,310		



Exhibit C-4a: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2013 General Members

Count	1											
	Years of Service											
Age	0-1	1-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Count		
Under 25	15	8	0	0	0	0	0	0	0	23		
25-29	78	88	46	0	0	0	0	0	0	212		
30-34	62	143	184	42	0	0	0	0	0	431		
35-39	47	112	261	136	13	0	0	0	0	569		
40-44	24	74	216	195	78	16	0	0	0	603		
45-49	13	58	174	151	90	78	20	2	0	586		
50-54	13	46	138	159	97	105	62	15	0	635		
55-59	23	51	130	118	70	84	65	44	3	588		
60-64	11	28	97	88	42	48	30	19	12	375		
65 & Over	2	11	30	29	33	19	14	7	6	151		
Total Count	288	619	1,276	918	423	350	191	87	21	4,173		

Co	mpe	nea	tion

				Ye	ars of Service	e				Average
Age	0-1	1-2	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Comp.
Under 25	46.271	49.044	_	_	_	_	_	_	_	47,236
25-29	60,916	64,550	62,344	-	-	-	-	-	-	62,734
30-34	68,036	76,635	74,513	63,345	-	-	-	-	-	73,197
35-39	76,459	81,727	79,746	78,928	70,080	-	-	-	-	79,448
40-44	86,057	80,020	82,576	80,945	82,957	75,750	-	-	-	81,741
45-49	97,815	87,244	83,811	89,115	81,625	86,801	73,695	73,227	-	85,509
50-54	79,264	85,077	80,126	79,372	89,360	88,077	85,503	79,923	-	83,524
55-59	86,095	84,694	81,313	81,060	89,789	90,116	85,192	96,829	95,163	85,670
60-64	72,573	82,941	80,771	79,452	87,707	94,110	95,601	84,612	87,117	84,451
65 & Over	79,132	112,673	77,517	84,652	87,386	76,936	93,784	79,911	96,794	85,939
Avg. Annual Compensation	71,394	79,097	79,624	80,901	85,694	87,941	86,354	89,342	91,031	81,140



Exhibit C-4b: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2013 Safety Members

Count												
•	Years of Service											
Age	0-1	1-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Count		
Under 25	8	0	0	0	0	0	0	0	0	8		
25-29	6	8	4	0	0	0	0	0	0	18		
30-34	9	13	27	5	0	0	0	0	0	54		
35-39	6	10	14	29	3	0	0	0	0	62		
40-44	4	19	21	30	17	1	0	0	0	92		
45-49	3	8	9	26	28	8	11	0	0	93		
50-54	6	9	3	12	8	6	12	2	0	58		
55-59	2	15	7	2	8	5	5	1	0	45		
60-64	0	2	9	1	3	2	0	1	0	18		
65 & Over	0	0	0	2	0	0	1	0	1	4		
Total Count	44	84	94	107	67	22	29	4	1	452		

	Years of Service											
Age	0-1	1-2	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Comp.		
Under 25	70,294	-	-	-	-	-	-	-	-	70,294		
25-29	81,042	94,915	101,739	-	-	-	-	-	-	91,807		
30-34	91,064	106,036	106,630	103,767	-	-	-	-	-	103,628		
35-39	118,953	117,251	109,427	110,602	120,094	-	-	-	-	112,677		
40-44	112,712	115,665	115,130	118,192	122,962	97,512	-	-	-	117,390		
45-49	101,599	118,791	116,953	113,726	130,456	134,057	153,681	-	-	125,594		
50-54	96,115	114,597	141,910	111,635	111,140	131,397	130,463	137,890	-	118,832		
55-59	106,791	117,408	104,444	114,915	119,579	138,127	154,398	111,057	-	121,466		
60-64	-	120,958	117,970	108,778	107,258	113,403	-	125,849	-	115,936		
65 & Over	-	-	-	100,158	-	-	165,574	-	145,717	127,902		
Avg. Annual Compensation	93,814	113,008	111,775	113,154	123,447	130,718	144,607	128,172	145,717	115,561		



Exhibit C-4c: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2013 **Probation Members** 

Count	1											
	<b>-</b>	Years of Service										
Age	0-1	1-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Count		
Under 25	2	0	0	0	0	0	0	0	0	2		
25-29	4	3	6	0	0	0	0	0	0	13		
30-34	1	5	28	1	0	0	0	0	0	35		
35-39	1	2	24	38	1	0	0	0	0	66		
40-44	1	0	12	37	21	1	0	0	0	72		
45-49	0	0	7	23	19	10	4	0	0	63		
50-54	0	0	4	7	5	3	6	0	0	25		
55-59	0	0	2	4	1	5	0	0	0	12		
60-64	0	0	0	1	0	1	0	1	0	3		
65 & Over	0	0	0	0	1	0	0	0	0	1		
Total Count	9	10	83	111	48	20	10	1	0	292		

Compensation	

				Ye	ears of Service	e				Average
Age	0-1	1-2	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Comp.
	= 4 400									
Under 25	51,422	-	-	-	-	-	-	-	-	51,422
25-29	63,046	67,789	72,762	-	-	-	-	=	=	68,625
30-34	57,699	68,090	69,835	75,050	-	-	-	-	-	69,388
35-39	57,690	68,111	76,751	80,660	71,511	-	-	-	-	78,372
40-44	170,456	-	77,273	81,065	86,247	79,276	-	-	-	83,161
45-49	-	-	79,115	82,630	88,043	88,519	101,684	-	-	86,017
50-54	-	-	75,134	93,215	87,900	93,692	103,879	-	-	91,876
55-59	-	-	88,122	82,460	86,611	89,107	-	-	-	86,519
60-64	-	-	-	95,798	-	91,582	-	79,410	-	88,930
65 & Over	-	-	-	-	117,514	-	-	-	-	117,514
Avg. Annual Compensation	71,208	68,004	74,601	82,146	87,482	89,133	103,001	79,410	-	81,240



Exhibit C-5: Distribution of Retired Members by Age and Retirement Year as of June 30, 2013 All Plans Combined

	Retirement Year										
Age	Pre-1979	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	Total Count	Monthly Benefit	
Under 35	-	1	-	-	3	2	-	-	6	\$ 1,423	
35-39	-	-	-	-	-	1	3	2	6	2,726	
40-44	-	-	1	1	-	3	6	3	14	2,655	
45-49	-	-	1	1	3	7	8	8	28	2,815	
50-54	1	-	-	1	10	13	26	97	148	2,834	
55-59	-	-	1	4	10	36	131	142	324	3,308	
60-64	-	-	6	22	33	118	259	240	678	3,432	
65-69	3	7	9	30	111	194	330	190	874	3,646	
70-74	4	4	24	99	170	218	208	64	791	3,050	
75-79	11	18	58	119	141	109	30	8	494	2,564	
80-84	13	52	68	124	101	25	12	3	398	2,134	
85-89	50	82	117	82	19	2	2	1	355	1,970	
90-94	51	79	75	15	2	-	-	-	222	1,919	
95-99	27	18	4	1	1	-	-	-	51	1,571	
100 & Over	7	2	-	-	-	-	-	-	9	1,610	
Total Count	167	263	364	499	604	728	1,015	758	4,398		
Avg Monthly Benefit	\$ 1,714	\$ 1,602	\$ 2,089	\$ 2,175	\$ 2,353	\$ 3,062	\$ 3,900	\$ 3,609		\$ 2,933	



Exhibit C-5a: Distribution of Retired Members by Age and Retirement Year as of June 30, 2013 General Plans Combined

Age	Pre-1979	1980-84	1985-89	<b>Retire</b> 1990-94	ment Year 1995-99	2000-04	2005-09	2010-14	Total Count	Average Monthly Benefit
Under 35	-	1	-	-	3	2	-	-	6	\$ 1,423
35-39	-	-	-	-	-	1	2	2	5	3,272
40-44	-	-	1	1	-	1	5	2	10	1,613
45-49	-	-	1	1	1	4	4	7	18	2,023
50-54	1	-	-	-	9	10	17	68	105	1,570
55-59	-	-	1	2	8	28	101	109	249	2,279
60-64	-	-	2	13	27	105	217	217	581	2,898
65-69	2	4	7	21	93	125	306	181	739	3,210
70-74	2	3	14	78	112	189	199	59	656	2,648
75-79	6	18	47	107	133	102	30	8	451	2,334
80-84	11	48	62	123	100	23	12	3	382	2,046
85-89	45	76	116	82	19	2	2	1	343	1,903
90-94	44	79	74	15	2	-	-	-	214	1,850
95-99	26	18	4	1	1	-	-	-	50	1,574
100 & Over	7	2	-	-	-	-	-	-	9	1,610
Total Count	144	249	329	444	508	592	895	657	3,818	
Avg Monthly Benefit	\$ 1,437	\$ 1,501	\$ 1,924	\$ 1,885	\$ 1,851	\$ 2,474	\$ 3,463	\$ 3,081		\$ 2,509



Exhibit C-5b: Distribution of Retired Members by Age and Retirement Year as of June 30, 2013 Safety Plans Combined

Age	Pre-1979	1980-84	1985-89	<b>Retire</b> 1990-94	ment Year 1995-99	2000-04	2005-09	2010-14	Total Count	Average Monthly Benefit
Under 35	-	-	-	-	-	-	-	-	-	\$ -
35-39	-	-	-	-	-	-	1	-	1	-
40-44	-	-	-	-	-	2	1	1	4	5,260
45-49	-	-	-	-	2	2	4	1	9	3,852
50-54	-	-	-	1	1	3	7	23	35	6,482
55-59	-	-	-	2	2	5	24	20	53	7,663
60-64	-	-	4	9	4	12	32	14	75	7,172
65-69	1	3	2	9	16	56	13	4	104	6,391
70-74	2	1	10	19	42	16	3	2	95	5,347
75-79	5	-	11	12	5	1	-	-	34	5,248
80-84	2	4	6	1	-	-	-	-	13	4,623
85-89	5	6	1	-	-	-	-	-	12	3,871
90-94	7	-	1	-	-	-	-	-	8	3,745
95-99	1	-	-	-	-	-	-	-	1	1,418
100 & Over	-	-	-	-	-	-	-	-	-	-
Total Count	23	14	35	53	72	97	85	65	444	
Avg Monthly Benefit	\$ 3,450	\$ 3,402	\$ 3,645	\$ 4,387	\$ 5,120	\$ 6,490	\$ 8,298	\$ 8,132		\$ 6,124



Exhibit C-5c: Distribution of Retired Members by Age and Retirement Year as of June 30, 2013 Probation Plans Combined

Age	Pre-1979	1980-84	1985-89	<b>Retire</b> 1990-94	ment Year 1995-99	2000-04	2005-09	2010-14	Total Count	Average Monthly Benefit
Under 35	-	-	-	-	-	-	-	-	-	\$ -
35-39	_	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	1	-	-	1	7,728
50-54	-	-	-	-	-	-	2	6	8	3,480
55-59	-	-	-	-	-	3	6	13	22	4,466
60-64	-	-	-	-	2	1	10	9	22	4,802
65-69	-	-	-	-	2	13	11	5	31	4,835
70-74	-	-	-	2	16	13	6	3	40	4,193
75-79	-	-	-	-	3	6	-	-	9	3,907
80-84	-	-	-	-	1	2	-	-	3	2,499
85-89	-	-	-	-	-	-	-	-	-	-
90-94	-	-	-	-	-	-	-	-	-	-
95-99	-	-	-	-	-	-	-	-	-	-
100 & Over	-	-	-	-	-	-	-	-	-	-
Total Count	-	-	-	2	24	39	35	36	136	
Avg Monthly Benefit	\$ -	\$ -	\$ -	\$ 7,962	\$ 4,673	\$ 3,457	\$ 4,389	\$ 5,089		\$ 4,410



### **Appendix D: Member Contribution Rates**



This section illustrates the member basic contribution rates and 50% COLA sharing contribution rates by entry age for Plans 1 through 6. For different COLA sharing percentages, the 50% COLA contribution rates may be adjusted ratably, and should be rounded to two decimal places.

Member contribution rates for Plan 7 are not defined by entry age. Plan 7 members contribute 50% of the total Normal Cost rate. For the 2013-2014 fiscal year, Plan 7 member contribution rates are:

General Plan 7 members: 7.75%
Safety Plan 7 members: 14.25%
Probation Plan 7 members: 13.75%

Please refer to Appendix B for a detailed description of member contribution rates.

Exhibit D-1: General Member Contribution Rates (including SMCM&VCD)

	Basic Member Rates						
Entry Age (1)	Plans 1&2	Plan 4	Plan 5	Plan 7			
16	5.25%	5.04%	4.34%	7.75%			
17	5.35%	5.14%	4.42%	7.75%			
18	5.45%	5.23%	4.50%	7.75%			
19	5.55%	5.33%	4.59%	7.75%			
20	5.66%	5.43%	4.67%	7.75%			
21	5.76%	5.53%	4.76%	7.75%			
22	5.87%	5.63%	4.85%	7.75%			
23	5.97%	5.73%	4.94%	7.75%			
24	6.08%	5.84%	5.03%	7.75%			
25	6.19%	5.94%	5.12%	7.75%			
26	6.31%	6.05%	5.22%	7.75%			
27	6.42%	6.16%	5.31%	7.75%			
28	6.54%	6.28%	5.41%	7.75%			
29	6.66%	6.39%	5.51%	7.75%			
30	6.78%	6.51%	5.61%	7.75%			
31	6.90%	6.62%	5.71%	7.75%			
32	7.03%	6.75%	5.82%	7.75%			
33	7.16%	6.87%	5.93%	7.75%			
34	7.29%	6.99%	6.03%	7.75%			
35	7.42%	7.12%	6.14%	7.75%			
36	7.56%	7.25%	6.25%	7.75%			
37	7.70%	7.39%	6.37%	7.75%			
38	7.84%	7.52%	6.48%	7.75%			
39	7.99%	7.66%	6.60%	7.75%			
40	8.14%	7.81%	6.72%	7.75%			
41	8.29%	7.95%	6.85%	7.75%			
42	8.45%	8.10%	6.97%	7.75%			
43	8.61%	8.24%	7.10%	7.75%			
44	8.76%	8.38%	7.24%	7.75%			
45	8.91%	8.51%	7.37%	7.75%			
46	9.06%	8.64%	7.51%	7.75%			
47	9.21%	8.76%	7.64%	7.75%			
48	9.34%	8.86%	7.78%	7.75%			
49	9.47%	8.96%	7.91%	7.75%			
50	9.58%	9.03%	8.04%	7.75%			
51	9.68%	9.07%	8.16%	7.75%			
52	9.75%	9.07%	8.27%	7.75%			
53	9.78%	9.38%	8.37%	7.75%			
54	9.78%	9.72%	8.46%	7.75%			
55	9.78%	9.72%	8.52%	7.75%			
56	9.78%	9.72%	8.56%	7.75%			
57	9.78%	9.72%	8.56%	7.75%			
58	9.78%	9.72%	8.85%	7.75%			
59	9.78%	9.72%	9.17%	7.75%			
60	9.78%	9.72%	9.17%	7.75%			

<sup>(1)</sup> For County General members (except plan 5 members) entering after age 55, the rate equals the rate at age 55. For County General plan 5 members entering after age 60, the rate equals the rate at age 60.



**Exhibit D-2: Safety Member Contribution Rates** 

	Ва	sic Member Rates	
(1)	Plans 1&2	Plans 4&5&6	Plan 7
		' <u> </u>	

***	Ба	Sic Michibel Rates	/ Inclined Nates					
Entry Age <sup>(1)</sup>	Plans 1&2	Plans 4&5&6	Plan 7					
16	7.14%	6.86%	14.25%					
17	7.28%	6.98%	14.25%					
18	7.41%	7.11%	14.25%					
19	7.55%	7.24%	14.25%					
20	7.68%	7.37%	14.25%					
21	7.82%	7.51%	14.25%					
22	7.97%	7.65%	14.25%					
23	8.11%	7.79%	14.25%					
24	8.26%	7.93%	14.25%					
25	8.41%	8.07%	14.25%					
26	8.56%	8.22%	14.25%					
27	8.72%	8.37%	14.25%					
28	8.88%	8.52%	14.25%					
29	9.04%	8.68%	14.25%					
30	9.21%	8.83%	14.25%					
31	9.37%	9.00%	14.25%					
32	9.55%	9.16%	14.25%					
33	9.72%	9.33%	14.25%					
34	9.91%	9.51%	14.25%					
35	10.09%	9.68%	14.25%					
36	10.29%	9.86%	14.25%					
37	10.48%	10.04%	14.25%					
38	10.68%	10.22%	14.25%					
39	10.87%	10.39%	14.25%					
40	11.06%	10.56%	14.25%					
41	11.24%	10.72%	14.25%					
42	11.42%	10.86%	14.25%					
43	11.59%	11.00%	14.25%					
44	11.74%	11.11%	14.25%					
45	11.89%	11.20%	14.25%					
46	12.00%	11.25%	14.25%					
47	12.09%	11.25%	14.25%					
48	12.13%	11.63%	14.25%					
49	12.13%	12.05%	14.25%					
50	12.13%	12.05%	14.25%					

<sup>(1)</sup> For Safety members entering after age 50, the rate equals the rate at age 50.



**Exhibit D-3: Probation Member Contribution Rates** 

	Basic Member Rates - PDA (2)			Basic Membe	Basic Member Rates - Probation Managers (3)			
Entry Age (1)	Plans 1&2	Plans 4&5&6	Plan 7	Plans 1&2	Plans 4&5&6	Plan 7		
16	5.72%	5.49%	13.75%	7.14%	6.86%	13.75%		
17	5.82%	5.59%	13.75%	7.14%	6.98%	13.75%		
18	5.93%	5.69%	13.75%	7.41%	7.11%	13.75%		
19	6.04%	5.79%	13.75%	7.55%	7.11%	13.75%		
20	6.15%	5.90%	13.75%	7.68%	7.24%	13.75%		
21	6.26%	6.01%	13.75%	7.82%	7.51% 7.51%	13.75%		
22	6.37%		13.75%	7.97%	7.65%			
23		6.12%				13.75%		
	6.49%	6.23%	13.75%	8.11%	7.79%	13.75%		
24	6.61%	6.34%	13.75%	8.26%	7.93%	13.75%		
25	6.73%	6.46%	13.75%	8.41%	8.07%	13.75%		
26	6.85%	6.57%	13.75%	8.56%	8.22%	13.75%		
27	6.98%	6.69%	13.75%	8.72%	8.37%	13.75%		
28	7.10%	6.82%	13.75%	8.88%	8.52%	13.75%		
29	7.23%	6.94%	13.75%	9.04%	8.68%	13.75%		
30	7.36%	7.07%	13.75%	9.21%	8.83%	13.75%		
31	7.50%	7.20%	13.75%	9.37%	9.00%	13.75%		
32	7.64%	7.33%	13.75%	9.55%	9.16%	13.75%		
33	7.78%	7.47%	13.75%	9.72%	9.33%	13.75%		
34	7.93%	7.61%	13.75%	9.91%	9.51%	13.75%		
35	8.08%	7.75%	13.75%	10.09%	9.68%	13.75%		
36	8.23%	7.89%	13.75%	10.29%	9.86%	13.75%		
37	8.39%	8.03%	13.75%	10.48%	10.04%	13.75%		
38	8.54%	8.17%	13.75%	10.68%	10.22%	13.75%		
39	8.69%	8.31%	13.75%	10.87%	10.39%	13.75%		
40	8.85%	8.45%	13.75%	11.06%	10.56%	13.75%		
41	9.00%	8.57%	13.75%	11.24%	10.72%	13.75%		
42	9.14%	8.69%	13.75%	11.42%	10.86%	13.75%		
43	9.27%	8.80%	13.75%	11.59%	11.00%	13.75%		
44	9.40%	8.89%	13.75%	11.74%	11.11%	13.75%		
45	9.51%	8.96%	13.75%	11.89%	11.20%	13.75%		
46	9.60%	9.00%	13.75%	12.00%	11.25%	13.75%		
47	9.67%	9.00%	13.75%	12.09%	11.25%	13.75%		
48	9.70%	9.31%	13.75%	12.13%	11.63%	13.75%		
49	9.70%	9.64%	13.75%	12.13%	12.05%	13.75%		
50	9.70%	9.64%	13.75%	12.13%	12.05%	13.75%		

<sup>(1)</sup> For Probation members entering after age 50, the rate equals the rate at age 50.



<sup>(2)</sup> PDA basic member rates reflect 20% pickup.

<sup>(3)</sup> Probation manager basic member contribution rates except Plan 7 are based on rates in corresponding Safety Plan.

Exhibit D-4: General Member Contribution Rates (including SMCM&VCD)

25% Member COLA Rates				50% Member COLA Rates				
Entry Age <sup>(1)</sup>	Plan 1	Plan 2	Plan 4	Plan 5	Plan 1	Plan 2	Plan 4	Plan 5
16	1.10%	0.86%	0.56%	0.46%	2.19%	1.72%	1.13%	0.92%
17	1.12%	0.88%	0.57%	0.47%	2.23%	1.75%	1.15%	0.94%
18	1.14%	0.89%	0.58%	0.48%	2.28%	1.79%	1.17%	0.96%
19	1.16%	0.91%	0.60%	0.49%	2.32%	1.82%	1.19%	0.98%
20	1.18%	0.93%	0.61%	0.50%	2.36%	1.86%	1.21%	0.99%
21	1.20%	0.94%	0.62%	0.51%	2.40%	1.89%	1.24%	1.01%
22	1.23%	0.96%	0.63%	0.52%	2.45%	1.92%	1.26%	1.03%
23	1.25%	0.98%	0.64%	0.53%	2.49%	1.96%	1.28%	1.05%
24	1.27%	1.00%	0.65%	0.54%	2.54%	1.99%	1.31%	1.07%
25	1.29%	1.01%	0.66%	0.55%	2.58%	2.03%	1.33%	1.09%
26	1.32%	1.03%	0.68%	0.56%	2.63%	2.07%	1.35%	1.11%
27	1.34%	1.05%	0.69%	0.57%	2.68%	2.11%	1.38%	1.13%
28	1.37%	1.07%	0.70%	0.58%	2.73%	2.14%	1.40%	1.15%
29	1.39%	1.09%	0.71%	0.59%	2.78%	2.18%	1.43%	1.17%
30	1.42%	1.11%	0.73%	0.60%	2.83%	2.22%	1.46%	1.19%
31	1.44%	1.13%	0.74%	0.61%	2.88%	2.26%	1.48%	1.22%
32	1.47%	1.15%	0.75%	0.62%	2.94%	2.31%	1.51%	1.24%
33	1.49%	1.17%	0.77%	0.63%	2.99%	2.35%	1.54%	1.26%
34	1.52%	1.20%	0.78%	0.64%	3.04%	2.39%	1.56%	1.28%
35	1.55%	1.22%	0.80%	0.65%	3.10%	2.43%	1.59%	1.31%
36	1.58%	1.24%	0.81%	0.67%	3.16%	2.48%	1.62%	1.33%
37	1.61%	1.26%	0.83%	0.68%	3.21%	2.52%	1.65%	1.36%
38	1.64%	1.29%	0.84%	0.69%	3.27%	2.57%	1.68%	1.38%
39	1.67%	1.31%	0.86%	0.70%	3.34%	2.62%	1.71%	1.41%
40	1.70%	1.33%	0.87%	0.72%	3.40%	2.67%	1.75%	1.43%
41	1.73%	1.36%	0.89%	0.73%	3.46%	2.72%	1.78%	1.46%
42	1.76%	1.39%	0.91%	0.74%	3.53%	2.77%	1.81%	1.48%
43	1.80%	1.41%	0.92%	0.76%	3.59%	2.82%	1.84%	1.51%
44	1.83%	1.44%	0.94%	0.77%	3.66%	2.87%	1.87%	1.54%
45	1.86%	1.46%	0.95%	0.78%	3.72%	2.92%	1.90%	1.57%
46	1.89%	1.49%	0.97%	0.80%	3.78%	2.97%	1.93%	1.60%
47	1.92%	1.51%	0.98%	0.81%	3.85%	3.02%	1.96%	1.63%
48	1.95%	1.53%	0.99%	0.83%	3.90%	3.06%	1.98%	1.66%
49	1.98%	1.55%	1.00%	0.84%	3.95%	3.11%	2.00%	1.68%
50	2.00%	1.57%	1.01%	0.86%	4.00%	3.14%	2.02%	1.71%
51	2.02%	1.59%	1.01%	0.87%	4.04%	3.17%	2.03%	1.74%
52	2.04%	1.60%	1.01%	0.88%	4.07%	3.20%	2.03%	1.76%
53	2.04%	1.60%	1.05%	0.89%	4.08%	3.21%	2.10%	1.78%
54	2.04%	1.60%	1.09%	0.90%	4.08%	3.21%	2.17%	1.80%
55	2.04%	1.60%	1.09%	0.91%	4.08%	3.21%	2.17%	1.81%
56	2.04%	1.60%	1.09%	0.91%	4.08%	3.21%	2.17%	1.82%
57	2.04%	1.60%	1.09%	0.91%	4.08%	3.21%	2.17%	1.82%
58	2.04%	1.60%	1.09%	0.94%	4.08%	3.21%	2.17%	1.89%
59	2.04%	1.60%	1.09%	0.98%	4.08%	3.21%	2.17%	1.95%
60	2.04%	1.60%	1.09%	0.98%	4.08%	3.21%	2.17%	1.95%
00	2.04 /0	1.00%	1.0970	0.90%	4.00 /0	3.2170	2.17/0	1.50/0

<sup>(1)</sup> For County General members (except plan 5 members) entering after age 55, the rate equals the rate at age 55. For County General plan 5 members entering after age 60, the rate equals the rate at age 60.



**Exhibit D-5: Safety Member Contribution Rates** 

25% Member COLA Rates				50% Member COLA Rates						
Entry Age (1)	Plan 1	Plan 2	Plan 4	Plan 5	Plan 6	Plan 1	Plan 2	Plan 4	Plan 5	Plan 6
16	2.23%	1.79%	1.13%	1.03%	0.92%	4.47%	3.57%	2.25%	2.06%	1.84%
17	2.28%	1.82%	1.15%	1.05%	0.94%	4.55%	3.64%	2.29%	2.10%	1.88%
18	2.32%	1.85%	1.17%	1.07%	0.96%	4.63%	3.71%	2.33%	2.14%	1.91%
19	2.36%	1.89%	1.19%	1.09%	0.97%	4.72%	3.78%	2.38%	2.18%	1.95%
20	2.40%	1.92%	1.21%	1.11%	0.99%	4.80%	3.84%	2.42%	2.22%	1.98%
21	2.45%	1.96%	1.23%	1.13%	1.01%	4.89%	3.91%	2.46%	2.26%	2.02%
22	2.49%	1.99%	1.25%	1.15%	1.03%	4.98%	3.99%	2.51%	2.30%	2.06%
23	2.54%	2.03%	1.28%	1.17%	1.05%	5.07%	4.06%	2.56%	2.34%	2.09%
24	2.58%	2.07%	1.30%	1.19%	1.07%	5.17%	4.13%	2.60%	2.38%	2.13%
25	2.63%	2.10%	1.32%	1.21%	1.08%	5.26%	4.21%	2.65%	2.43%	2.17%
26	2.68%	2.14%	1.35%	1.24%	1.10%	5.35%	4.28%	2.70%	2.47%	2.21%
27	2.73%	2.18%	1.37%	1.26%	1.12%	5.45%	4.36%	2.75%	2.52%	2.25%
28	2.78%	2.22%	1.40%	1.28%	1.15%	5.55%	4.44%	2.80%	2.56%	2.29%
29	2.83%	2.26%	1.42%	1.31%	1.17%	5.65%	4.52%	2.85%	2.61%	2.33%
30	2.88%	2.30%	1.45%	1.33%	1.19%	5.76%	4.61%	2.90%	2.66%	2.37%
31	2.93%	2.34%	1.48%	1.35%	1.21%	5.86%	4.69%	2.95%	2.71%	2.42%
32	2.99%	2.39%	1.50%	1.38%	1.23%	5.97%	4.78%	3.01%	2.75%	2.46%
33	3.04%	2.43%	1.53%	1.40%	1.25%	6.08%	4.86%	3.06%	2.81%	2.51%
34	3.10%	2.48%	1.56%	1.43%	1.28%	6.20%	4.96%	3.12%	2.86%	2.56%
35	3.16%	2.52%	1.59%	1.46%	1.30%	6.31%	5.05%	3.18%	2.91%	2.60%
36	3.22%	2.57%	1.62%	1.48%	1.33%	6.44%	5.15%	3.24%	2.96%	2.65%
37	3.28%	2.62%	1.65%	1.51%	1.35%	6.55%	5.24%	3.29%	3.02%	2.70%
38	3.34%	2.67%	1.68%	1.54%	1.37%	6.68%	5.34%	3.35%	3.07%	2.75%
39	3.40%	2.72%	1.70%	1.56%	1.40%	6.80%	5.44%	3.41%	3.12%	2.79%
40	3.46%	2.77%	1.73%	1.59%	1.42%	6.92%	5.53%	3.46%	3.18%	2.84%
41	3.51%	2.81%	1.76%	1.61%	1.44%	7.03%	5.62%	3.52%	3.22%	2.88%
42	3.57%	2.86%	1.78%	1.63%	1.46%	7.14%	5.71%	3.56%	3.27%	2.92%
43	3.62%	2.90%	1.80%	1.65%	1.48%	7.25%	5.80%	3.61%	3.31%	2.96%
44	3.67%	2.94%	1.82%	1.67%	1.49%	7.34%	5.87%	3.65%	3.34%	2.99%
45	3.72%	2.97%	1.84%	1.68%	1.51%	7.44%	5.95%	3.67%	3.37%	3.01%
46	3.75%	3.00%	1.85%	1.69%	1.51%	7.50%	6.00%	3.69%	3.38%	3.02%
47	3.78%	3.02%	1.85%	1.69%	1.51%	7.56%	6.05%	3.69%	3.38%	3.02%
48	3.79%	3.03%	1.91%	1.75%	1.56%	7.59%	6.07%	3.82%	3.50%	3.13%
49	3.79%	3.03%	1.98%	1.81%	1.62%	7.59%	6.07%	3.95%	3.62%	3.24%
50	3.79%	3.03%	1.98%	1.81%	1.62%	7.59%	6.07%	3.95%	3.62%	3.24%

<sup>(1)</sup> For Safety members entering after age 50, the rate equals the rate at age 50.



**Exhibit D-6: Probation Member Contribution Rates** 

50% Member COLA Rates 25% Member COLA Rates - PDA 50% Member COLA Rates - PDA Probation Managers (2) Entry Age (1) Plans 1&2 Plan 4 Plan 5 Plan 6 Plans 1&2 Plan 4 Plan 5 Plan 6 Plan 5 Plan 6 16 1.79% 1.12% 1.02% 0.92% 3.58% 2.24% 2.03% 1.83% 2.06% 1.84% 17 1.82% 1.14% 3 64% 2.28% 2.07% 2.10% 1.88% 1.03% 0.93% 1.86% 18 1.86% 1.16% 1.05% 0.95% 3.71% 2.32% 2.11% 1.90% 2.14% 1.91% 19 1.89% 1.18% 1.07% 0.97% 3.78% 2.36% 2.14% 1.93% 2.18% 1.95% 20 1.92% 1.20% 1.09% 0.98% 3.85% 2.41% 2.18% 1.97% 2.22% 1.98% 21 1.96% 1.23% 1.11% 1.00% 3.92% 2.45% 2.22% 2.00% 2.26% 2.02% 22 1.99% 1.25% 1.13% 1.02% 3.99% 2.50% 2.27% 2.04% 2.30% 2.06% 23 2.03% 1.27% 1.15% 1.04% 4.06% 2.54% 2.31% 2.08% 2.34% 2.09% 24 2.07% 1 29% 1 17% 1.06% 4 14% 2.59% 2.35% 2.12% 2.38% 2.13% 25 2.11% 1.32% 1.20% 1.08% 4.21% 2.63% 2.39% 2.16% 2.43% 2.17% 26 1.34% 2.19% 2.47% 2.14% 1.22% 1.10% 4.29% 2.68% 2.43% 2.21% 27 2.18% 1.36% 1.24% 1.12% 4.37% 2.73% 2.48% 2.23% 2.52% 2.25% 28 2.22% 1.39% 1.26% 1.14% 4.44% 2.78% 2.52% 2.28% 2.56% 2.29% 29 2.26% 1.42% 1.28% 1.16% 4.52% 2.83% 2.57% 2.32% 2.61% 2.33% 30 2.30% 1.44% 1.31% 1.18% 4.61% 2.88% 2.62% 2.36% 2.66% 2.37% 31 2.35% 1.47% 1.33% 1.20% 4.69% 2.94% 2.67% 2.40% 2.71% 2.42% 32 2.39% 1.49% 1.36% 1.22% 4.78% 2.99% 2.71% 2.45% 2.75% 2.46% 33 2.43% 1.52% 1.38% 4.87% 3.05% 2.49% 2.81% 2.51% 1.25% 2.77% 34 2.48% 1.55% 1.41% 1.27% 4.96% 3.10% 2.82% 2.54% 2.86% 2.56% 35 2.53% 1.58% 1.43% 1.29% 5.06% 3.16% 2.87% 2.59% 2.91% 2.60% 36 2.57% 1.61% 1.46% 1.32% 5.15% 3.22% 2.92% 2.63% 2.96% 2.65% 37 2.62% 1.64% 1.49% 1.34% 5.25% 3.27% 2.97% 2.68% 3.02% 2.70% 38 2.67% 1.67% 1.51% 1.36% 5.34% 3.33% 3.02% 2.73% 3.07% 2.75% 39 2.72% 1.69% 1.54% 1.39% 5.44% 3.39% 3.08% 2.77% 3.12% 2.79% 40 1.72% 5.54% 2.82% 3.18% 2.77% 1.56% 1.41% 3.45% 3.13% 2.84% 41 2.82% 1.75% 1.59% 1.43% 5.63% 3.49% 3.17% 2.86% 3.22% 2.88% 42 2.86% 1.45% 5.72% 3.54% 2.90% 3.27% 2.92% 1.77% 1.61% 3.22% 43 2.90% 1.79% 1.63% 1.47% 5.80% 3.59% 3.26% 2.94% 3.31% 2.96% 44 2.94% 1.81% 1.65% 1.48% 5.88% 3.63% 3.29% 2.97% 3.34% 2.99% 45 2.98% 1.83% 1.66% 1.49% 5.95% 3.65% 3.32% 2.99% 3.37% 3.01% 46 3.00% 1.84% 1.67% 1.50% 6.01% 3.67% 3.33% 3.00% 3.38% 3.02% 47 3.03% 1.84% 1.67% 1.50% 6.05% 3 67% 3.33% 3.00% 3.38% 3.02% 48 3.03% 1.90% 1.72% 1.55% 6.07% 3.80% 3.45% 3.11% 3.50% 3.13% 49 3.03% 1.97% 1.78% 1.61% 6.07% 3.93% 3.57% 3.22% 3.62% 3.24% 50 3.03% 1.97% 1.78% 1.61% 6.07% 3.93% 3.57% 3.22% 3.62% 3.24%

<sup>(1)</sup> For Probation members entering after age 50, the rate equals the rate at age 50.

<sup>(2)</sup> Probation manager member contribution rates based on rates in corresponding Safety Plan.

### Appendix E: Glossary



The following definitions include excerpts from a list adopted by the major actuarial organizations in the United States. In some cases, the definitions have been modified for specific applicability to SamCERA and include terms used exclusively by SamCERA. Defined terms are capitalized throughout this Appendix.

#### **Accrued Benefit**

The amount of an individual's benefit (whether or not vested) as of a specific date, determined in accordance with the terms of a pension plan and based on compensation and service to that date.

### Actuarial Accrued Liability

That portion, as determined by a particular Actuarial Cost Method, of the Actuarial Present Value of pension plan benefits and expenses which is not provided for by future Normal Costs.

## Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs, such as: mortality, withdrawal, disablement, and retirement; changes in compensation; rates of investment earnings and asset appreciation or depreciation; procedures used to determine the Actuarial Value of Assets; and other relevant items.

## Actuarial Gain (Loss)

A measure of the difference between actual experience and that expected based on a set of Actuarial Assumptions during the period between two Actuarial Valuation dates, as determined in accordance with a particular Actuarial Cost Method.

### Actuarial Present Value

The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions.

## Actuarial Valuation

The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.

### Actuarial Value of Assets

The value of cash, investments and other property belonging to a pension plan, as used by the actuary for the purpose of an Actuarial Valuation.

## Actuarially Equivalent

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

## Amortization Payment

That portion of the pension plan contribution which is designed to pay interest on and to amortize the Unfunded Actuarial Accrued Liability.

### **COLA**

Cost of living adjustments to benefit payments are made each April 1. See full description in Appendix B.



### **Employer Reserve**

The accumulation of employer contributions for future retirement benefit payments. Additions include contributions from employers and related earnings. Deductions include annuity payments to retired members and survivors, lump sum death benefit payments to member survivors, and supplemental disability payments.

### Entry Age Actuarial Cost Method

A method under which the Actuarial Present Value of the Projected Benefits of each individual included in an Actuarial Valuation is allocated on a level basis over the earnings or service of the individual between entry age and assumed exit ages. The portion of this Actuarial Present Value allocated to a valuation year is called the Normal Cost. The portion of this Actuarial Present Value not provided for at a valuation date by the Actuarial Present Value of future Normal Costs is called the Actuarial Accrued Liability.

### **Funded Ratio**

A measurement of the funded status of the system. The Funded Ratio is calculated by dividing the Valuation Assets by the Actuarial Accrued Liability. For example, a Funded Ratio of 90% indicates assets are 10% less than liabilities.

#### Member Reserve

The accumulation of member contributions. Additions include member contributions and related earnings. Deductions include annuity payments to retirees and refunds to members.

### Non-Valuation Reserves

Reserves excluded from the calculation of contribution rates.

#### **Normal Cost**

That portion of the Actuarial Present Value of pension plan benefits and expenses which is allocated to a valuation year by the Actuarial Cost Method.

#### Plan Year

A 12-month period beginning July 1 and ending June 30.

### **Projected Benefits**

Those pension plan benefit amounts which are expected to be paid at various future times under a particular set of Actuarial Assumptions, taking into account such items as the effect of advancement in age and past and anticipated future compensation and service credits.

### Unfunded Actuarial Accrued Liability

The excess, if any, of the Actuarial Accrued Liability over the Actuarial Value of Assets.

### **Valuation Date**

The date upon which the Normal Cost, Actuarial Accrued Liability, and Actuarial Value of Assets are determined. Generally, the Valuation Date will coincide with the ending of a Plan Year.

## Valuation Reserves

All reserves excluding the Non-Valuation Reserves.





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February 13, 2014

Board of Retirement San Mateo County Employees' Retirement Association 100 Marine Parkway, Suite 125 Redwood Shores, CA 94065-5208

Re: June 30, 2013 Actuarial Valuation Addendum – Alternative Contribution Rates

Dear Members of the Board:

We have previously provided you an actuarial valuation report for the San Mateo County Employees' Retirement Association (SamCERA) as of June 30, 2013. There have been two recent events that could potentially affect the contribution rates calculated in that valuation.

- 1. Assembly Bill 1380 added Section 31620.5 to the Government Code which revises the provisions for the calculation of member contribution rates for members of Plan 7.
- 2. The Board of Supervisors and Board of Retirement adopted a Memorandum of Understanding (MOU) regarding retirement system funding.

The purpose of this addendum to the valuation is to provide alternate employer and member contribution rates for the fiscal year beginning July 1, 2014 reflecting these items which the Board may adopt.

#### Changes reflected in the addendum

The actuarial valuation reflected fully the provisions of Section 7522.30 of the Government Code included under PEPRA. This addendum presents alternative member contribution rates that reflect changes to Section 7522.30(c) and Section 7522.30(d) that were included in AB 1380. These changes are presented as Alternative #1 and Alternative #2 in this letter and are discussed in the following section.

Additionally, under the MOU, the County intends on paying the Statutory Contribution Rate (SCR) or 38% of County payroll, whichever is higher. Since the SCR for the County for fiscal year 2014-2015 is less than 38% of payroll, this addendum provides alternative employer rates that would increase the County contribution to 38% of payroll. Note that County payroll excludes employees of the Superior Court of San Mateo (Courts) and the San Mateo County Mosquito and Vector Control District (SMCM&VCD).



For purposes of this addendum, we have defined the following alternatives:

**Alternative #1**: This alternative assumes the Board elects to continue to round member contribution rates. The only change is that it removes the provision of the original PEPRA legislation that prevented changes in member rates if the normal cost rate changed by less than 1%. This would impact the General Plan 7 contribution rates.

**Alternative #2**: This alternative is the same as Alternative #1, except that it assumes the Board does not elect to round member contribution rates. This would affect all Plan 7 contribution rates.

**Alternative #3**: This alternative is the same as Alternative #2, except that it assumes the County elects to contribute at the 38% rate pursuant to the MOU. This change would impact the County contribution rates.

#### Member Contribution Rates - Alternative #1 & #2

Member contribution rates are discussed in Section 5 and Appendix D of the actuarial valuation report. Alternative Plan 7 member contribution rates effective July 1, 2014 that reflect the changes previously discussed are shown below. The alternative rates remove the requirement of Section 7522.30(d) that rates will only be revised when the normal cost rate increases or decreases by more than 1%. It also reflects that an election to round the member contribution rates to the nearest quarter of 1% is made (Alternative #1) or is not made (Alternative #2). Note that the first change (no change in member rate if normal cost rate changes by less than 1%) is required and the second change (rounding of member rates) is at the Board's discretion. Member rates for Alternative #3 are shown on the attached exhibits.

Class	Valuation Member Contribution Rate	Alternative #1 Member Contribution Rate	Alternative #2 Member Contribution Rate
General members	7.75%	7.50%	7.58%
Safety members	14.25%	14.25%	14.28%
Probation members	13.75%	13.75%	13.78%



### Employer Contribution Rates – Alternatives #1 and #2

Employer contribution rates are discussed in detail in Section 6 of the actuarial valuation report. Under Alternatives #1 and #2, the only employer contribution rates that would change are those for Plan 7. Alternative employer contribution rates by class of member are shown as a percentage of payroll in the table below. Note that under these alternatives the total aggregate contribution rate for all employers would only change by about 0.01% of payroll, because Plan 7 members only make up only a small percentage of the aggregate payroll. Employer contribution rates under Alternative #3 are discussed later.

Class / Plan	Valuation Employer Contribution Rate	Alternative #1 Employer Contribution Rate	Alternative #2 Employer Contribution Rate
General Plan 7 (County & Courts)	29.75%	30.00%	29.92%
General Plan 7 (SMCM&VCD)	30.25%	30.50%	30.42%
Safety Plan 7	64.64%	64.64%	64.61%
Probation Plan 7	43.12%	43.12%	43.09%

The above alternative employer contribution rates also reflect changes in the Plan 7 member contribution rates previously discussed.

### **Employer Contribution Rates – Alternative #3**

We calculated alternative employer contribution rates that are expected to result in an aggregate County contribution rate of 38% of payroll in the fiscal year beginning July 1, 2014. The UAAL contribution rates for each class of County member were each increased proportionately based on the total additional contributions needed to reach the aggregate County contribution rate of 38% of payroll. Revised aggregate employer contribution rates and the additional contribution rate (as a percentage of payroll), by class of member are shown in the table below. Further breakdowns for each group are attached to this letter.

Class / Bargaining Unit	Valuation Employer Contribution Rate	Revised Employer Contribution Rate	Change in Employer Contribution Rate
General (CNA, UAPD)	31.27%	31.44%	0.17%
General (Courts)	32.09%	32.09%	0.00%
General (Other)	32.09%	32.26%	0.17%
SMCM&VCD	34.05%	34.05%	0.00%
Safety	68.84%	69.20%	0.36%
Probation Managers	47.17%	47.43%	0.26%
Probation non-Managers	47.65%	47.91%	0.26%

The above alternative employer contribution rates also reflect changes in Plan 7 member contribution rates, with no rounding, discussed earlier in this letter (Alternative #2).



#### Certification

This addendum is based on our valuation report dated September 18, 2013, and all caveats disclosed in that valuation continue to apply. All plan provisions, assumptions and methods are the same as that valuation, except as described in this letter.

Milliman's work is prepared solely for the internal business use of SamCERA. To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release.

No third party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

On the basis of the foregoing, we hereby certify that, to the best of our knowledge and belief, this letter is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices. We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Sincerely,

Nick J. Collier, ASA, EA, MAAA

Vin Celli

**Consulting Actuary** 

NJC/CJG/nlo

**Enclosures** 

Craig J. Glyde, ASA, EA, MAAA Consulting Actuary

Exhibit 11a: Calculated Employer Contribution Rates – June 30, 2013 (Alternative #3)

### All Plans

			Employer Rates						
	Gross Normal Cost	Member Contributions	Basic Normal Cost	COLA Normal Cost	Total Normal Cost	UAAL Contribution Rate	Total Contribution Rate	Prior Year Total Contribution Rate	
General Members									
County	19.59%	(9.85)%	6.19%	3.55%	9.74%	22.52%	32.26%	30.15%	
Courts	19.59%	(9.85)%	6.19%	3.55%	9.74%	22.35%	32.09%	30.15%	
CNA	19.59%	(10.67)%	5.67%	3.25%	8.92%	22.52%	31.44%	29.13%	
UAPD	19.59%	(10.67)%	5.67%	3.25%	8.92%	22.52%	31.44%	29.13%	
Total	19.59%	(9.98)%	6.11%	3.50%	9.61%	22.51%	32.12%	30.03%	
SMCM&VCD Members Total	18.80%	(7.10)%	8.33%	3.37%	11.70%	22.35%	34.05%	31.85%	
Safety Members Total	32.22%	(13.72)%	11.68%	6.82%	18.50%	50.70%	69.20%	67.56%	
Probation Members									
PDA	30.48%	(12.15)%	11.89%	6.44%	18.33%	29.58%	47.91%	46.70%	
Managers	30.48%	(12.63)%	11.57%	6.28%	17.85%	29.58%	47.43%	46.70%	
Total	30.48%	(12.22)%	11.84%	6.42%	18.26%	29.58%	47.84%	46.70%	
All Plans Total	21.74%	(10.55)%	7.12%	4.07%	11.19%	26.52%	37.71%	35.49%	
County Only Total	21.84%	(10.60)%	7.16%	4.08%	11.24%	26.76%	38.00%	N/A	



Exhibit 11b: Calculated Employer Contribution Rates – General (Alternative #3)

General Members								
	Gross Normal Cost	Member Contributions	Basic Normal Cost	COLA Normal Cost	Total Normal Cost	UAAL Contribution Rate	Total Contribution Rate	Prior Year Total Contribution Rate
Plan 1								
County	21.14%	(9.89)%	5.23%	6.02%	11.25%	22.52%	33.77%	30.92%
Courts	21.14%	(9.89)%	5.23%	6.02%	11.25%	22.35%	33.60%	30.92%
CNA	21.14%	(11.33)%	4.56%	5.25%	9.81%	22.52%	32.33%	29.49%
UAPD	21.14%	(11.33)%	4.56%	5.25%	9.81%	22.52%	32.33%	29.49%
Total	21.14%	(10.05)%	5.16%	5.93%	11.09%	22.51%	33.60%	30.79%
Plan 2								
County	20.72%	(10.20)%	5.65%	4.87%	10.52%	22.52%	33.04%	30.82%
Courts	20.72%	(10.20)%	5.65%	4.87%	10.52%	22.35%	32.87%	30.82%
CNA	20.72%	(11.37)%	5.02%	4.33%	9.35%	22.52%	31.87%	29.63%
UAPD	20.72%	(11.37)%	5.02%	4.33%	9.35%	22.52%	31.87%	29.63%
Total	20.72%	(10.37)%	5.56%	4.79%	10.35%	22.51%	32.86%	30.68%
Plan 3								
County	7.83%	0.00%	7.83%	0.00%	7.83%	22.52%	30.35%	28.11%
Courts	7.83%	0.00%	7.83%	0.00%	7.83%	22.35%	30.18%	28.11%
CNA	7.83%	0.00%	7.83%	0.00%	7.83%	22.52%	30.35%	28.11%
UAPD	7.83%	0.00%	7.83%	0.00%	7.83%	22.52%	30.35%	28.11%
Total	7.83%	0.00%	7.83%	0.00%	7.83%	22.51%	30.34%	28.11%
Plan 4								
County	20.14%	(10.41)%	6.38%	3.35%	9.73%	22.52%	32.25%	30.01%
Courts	20.14%	(10.41)%	6.38%	3.35%	9.73%	22.35%	32.08%	30.01%
CNA	20.14%	(11.23)%	5.84%	3.07%	8.91%	22.52%	31.43%	29.18%
UAPD	20.14%	(11.23)%	5.84%	3.07%	8.91%	22.52%	31.43%	29.18%
Total	20.14%	(10.54)%	6.29%	3.31%	9.60%	22.51%	32.11%	29.92%
Plan 5								
County	17.07%	(7.99)%	6.30%	2.78%	9.08%	22.52%	31.60%	29.52%
Courts	17.07%	(7.99)%	6.30%	2.78%	9.08%	22.35%	31.43%	29.52%
CNA	17.07%	(7.99)%	6.30%	2.78%	9.08%	22.52%	31.60%	29.52%
UAPD	17.07%	(7.99)%	6.30%	2.78%	9.08%	22.52%	31.60%	29.52%
Total	17.07%	(7.99)%	6.30%	2.78%	9.08%	22.51%	31.59%	29.52%
Plan 7								
County	15.15%	(7.58)%	5.06%	2.51%	7.57%	22.52%	30.09%	27.82%
Courts	15.15%	(7.58)%	5.06%	2.51%	7.57%	22.35%	29.92%	27.82%
CNA	15.15%	(7.58)%	5.06%	2.51%	7.57%	22.52%	30.09%	27.82%
UAPD	15.15%	(7.58)%	5.06%	2.51%	7.57%	22.52%	30.09%	27.82%
Total	15.15%	(7.58)%	5.06%	2.51%	7.57%	22.51%	30.08%	27.82%
All Plans								
County	19.59%	(9.85)%	6.19%	3.55%	9.74%	22.52%	32.26%	30.15%
Courts	19.59%	(9.85)%	6.19%	3.55%	9.74%	22.35%	32.09%	30.15%
CNA	19.59%	(10.67)%	5.67%	3.25%	8.92%	22.52%	31.44%	29.13%
UAPD	19.59%	(10.67)%	5.67%	3.25%	8.92%	22.52%	31.44%	29.13%
Total	19.59%	(9.98)%	6.11%	3.50%	9.61%	22.51%	32.12%	30.03%

This work product was prepared solely for SAMCERA for the purposes described herein and may not be appropriate to use for other purposes.

Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.



Exhibit 11c: Calculated Employer Contribution Rates – June 30, 2013 (Alternative #3)

#### SMCM&VCD Members **Employer Rates Prior Year** Gross Basic COLA Total UAAL Total Total Normal Member Normal Normal Normal Contribution Contribution Contribution Contributions Cost Cost Cost Cost Rate Rate Rate Plan 1 Total N/A N/A N/A N/A N/A N/A N/A N/A Plan 2 Total 26.47% (8.78)% 11.46% 6.23% 17.69% 22.35% 40.04% 37.87% Plan 4 Total 17.98% (6.93)% 7.99% 3.06% 11.05% 22.35% 33.40% 31.07% Plan 7 15.65% (7.58)% 6.74% 22.35% 28.07% Total 1.33% 8.07% 30.42%

3.37%

11.70%

22.35%

34.05%

31.85%



All Plans Total

18.80%

(7.10)%

8.33%

**Exhibit 11d: Calculated Employer Contribution Rates** 

			Saf	ety Membe	ers					
		Employer Rates								
	Gross Normal Cost	Member Contributions	Basic Normal Cost	COLA Normal Cost	Total Normal Cost	UAAL Contribution Rate	Total Contribution Rate	Prior Year Total Contribution Rate		
Plan 1										
Total	41.08%	(15.92)%	12.00%	13.16%	25.16%	50.70%	75.86%	75.20%		
Plan 2										
Total	33.13%	(13.47)%	10.79%	8.87%	19.66%	50.70%	70.36%	68.59%		
Plan 4										
Total	31.90%	(13.40)%	12.38%	6.12%	18.50%	50.70%	69.20%	67.16%		
Plan 5										
Total	32.45%	(16.38)%	10.03%	6.04%	16.07%	50.70%	66.77%	64.99%		
Plan 6										
Total	32.25%	(13.99)%	12.20%	6.06%	18.26%	50.70%	68.96%	64.49%		
Plan 7										
Total	28.56%	(14.28)%	8.99%	5.29%	14.28%	50.70%	64.98%	61.73%		
All Plans										
Total	32.22%	(13.72)%	11.68%	6.82%	18.50%	50.70%	69.20%	67.56%		



**Exhibit 11e: Calculated Employer Contribution Rates** 

			Probati	on Membe	rs				
			Employer Rates						
	Gross Normal Cost	Member Contributions	Basic Normal Cost	COLA Normal Cost	Total Normal Cost	UAAL Contribution Rate	Total Contribution Rate	Prior Year Total Contribution Rate	
Plan 1									
PDA Members	33.70%	(3.50)%	14.59%	15.61%	30.20%	29.58%	59.78%	56.91%	
Managers	33.70%	(12.11)%	10.43%	11.16%	21.59%	29.58%	51.17%	56.91%	
Total	33.70%	(3.50)%	14.59%	15.61%	30.20%	29.58%	59.78%	56.91%	
<u>Plan 2</u>									
PDA Members	32.63%	(12.77)%	11.27%	8.59%	19.86%	29.58%	49.44%	49.19%	
Managers	32.63%	(12.11)%	11.64%	8.88%	20.52%	29.58%	50.10%	49.19%	
Total	32.63%	(12.57)%	11.38%	8.68%	20.06%	29.58%	49.64%	49.19%	
Plan 4									
PDA Members	29.95%	(11.97)%	12.17%	5.81%	17.98%	29.58%	47.56%	45.93%	
Managers	29.95%	(13.08)%	11.42%	5.45%	16.87%	29.58%	46.45%	45.93%	
Total	29.95%	(12.08)%	12.10%	5.77%	17.87%	29.58%	47.45%	45.93%	
<u>Plan 5</u>									
PDA Members	26.64%	(12.85)%	8.73%	5.06%	13.79%	29.58%	43.37%	41.63%	
Managers	26.64%	(15.32)%	7.24%	4.08%	11.32%	29.58%	40.90%	41.63%	
Total	26.64%	(12.85)%	8.73%	5.06%	13.79%	29.58%	43.37%	41.63%	
<u>Plan 6</u>									
PDA Members	23.99%	(9.27)%	10.10%	4.62%	14.72%	29.58%	44.30%	42.75%	
Managers	23.99%	(11.87)%	8.35%	3.77%	12.12%	29.58%	41.70%	42.75%	
Total	23.99%	(9.27)%	10.10%	4.62%	14.72%	29.58%	44.30%	42.75%	
<u>Plan 7</u>									
PDA Members	27.55%	(13.78)%	8.59%	5.18%	13.77%	29.58%	43.35%	39.02%	
Managers	27.55%	(13.78)%	8.59%	5.18%	13.77%	29.58%	43.35%	39.02%	
Total	27.55%	(13.78)%	8.59%	5.18%	13.77%	29.58%	43.35%	39.02%	
All Plans									
PDA Members	30.48%	(12.15)%	11.89%	6.44%	18.33%	29.58%	47.91%	46.70%	
Managers	30.48%	(12.63)%	11.57%	6.28%	17.85%	29.58%	47.43%	46.70%	
Total	30.48%	(12.22)%	11.84%	6.42%	18.26%	29.58%	47.84%	46.70%	

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