

### June 30, 2011, Actuarial Valuation with October 18, 2011, Addendum

This PDF file contains SamCERA's June 30, 2011, actuarial valuation, along with an addendum dated October 18, 2011.

The purpose of the addendum is to provide employer and member contribution rates for new plans for the fiscal year beginning July 1, 2012.

The revised rates are provided because after the valuation report was completed and dated September 16, 2011, new plan provisions went into effect for newly hired employees. The addendum also outlines employer contribution rates, which the Board adopted on October 25, 2011.

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

ACTUARIAL VALUATION June 30, 2011



By

Nick J. Collier

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September 16, 2011

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, 2012.

#### 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, 2011. In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by *SamCERA*'s staff. This information includes, but is not limited to, statutory provisions, employee data and



Board of Retirement San Mateo County Employees' Retirement Association September 16, 2011 Page 2

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 Statements 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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Board of Retirement San Mateo County Employees' Retirement Association September 16, 2011 Page 3

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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,

Nie Colli

Nick J. Collier, ASA, EA, MAAA Consulting Actuary

NJC/nlo

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# Section 1: Summary of the Findings



#### 2011 Valuation Results

	June 30, 2011	June 30, 2010
Employer Contribution Rate	30.97%	31.40%
Funded Ratio	74.1%	70.3%

Overview

This report presents the results of the June 30, 2011 actuarial valuation. Several key points are summarized as follows:

- **Funding:** The Funded Ratio increased from 70.3% to 74.1%. This increase was primarily due to the required contributions made to fund the plan.
- Contribution Rates: The Employer Normal Cost rate of 11.25% decreased from 11.57% reported in the prior year. This rate was influenced in part by the new assumptions adopted as a result of the June 30, 2011 experience study. A revision was also made in the adjustment for the member contribution offset to the Gross Normal Cost for the upcoming year which reduced the Employer Normal Cost rate. Additionally, the 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 Plans 3, 4, 5 & 6, which are less expensive than Plans 1 & 2.

The employer's required contribution rate to finance the Unfunded Actuarial Accrued Liability (UAAL) over 15 years decreased from 19.83% to 19.72%. The overall result is a decrease in the required total contribution rate from the prior valuation of 0.43% (from 31.40% to 30.97% of payroll).

Investment Returns: SamCERA's investment return on the market value of assets for the prior year (23.7%, based on Milliman's estimate) was greater than the actuarial assumed rate of 7.75%. However, this was offset by the recognition of investment losses from prior years. The net result was a return on the actuarial value of assets which was slightly less than expected. This caused a small decrease in the system's funding status and a small increase in the required employer contribution rate. The increase in the employer contribution rate due to the actuarial investment return was offset by other factors, and the final result was a small decrease.

Note that currently an \$88 million net asset loss is being deferred. This is because the asset-smoothing method has not yet recognized a portion of the net asset losses from the prior four years. These deferred losses will be reflected in future valuations.

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Overview (continued)	• New Assumptions: New assumptions were recently adopted with the June 30, 2011 investigation of experience, with the most significant being a stronger mortality assumption (i.e., longer life expectancies). The overall impact of the assumption changes was a small increase in the required member and employer contribution rates and a decrease in the Funded Ratio.
	<ul> <li>New Benefits: New benefit provisions and member contributions rates have been negotiated recently for certain employees. For current members as of June 30, 2011, the only change is to members of the California Nurses Association (CNA) who have agreed to contribute 25% of the expected cost of post-retirement cost-of-living-adjustments (COLAs). This is in addition to their current member contributions and cost sharing and begins in January 2012. This change has been reflected in the current valuation report. Note that several new plans began in July 2011; however, they are not reflected in the results as the new plans do not apply to any current members as of the valuation date. Information on these new plans is contained in an addendum to the valuation report.</li> </ul>
Comparison with Prior Year	Note that for comparison purposes, the prior year employer contribution rates shown in this report are those from the June 30, 2010 actuarial valuation. The County is currently contributing at a higher level than those calculated rates.
Summary of Recommendations	The following exhibit summarizes our recommendations to the Board.

#### Exhibit 1a Summary of Recommendations

			Increase /
	June 30, 2011	June 30, 2010	(Decrease)
Fross Normal Cost	21.57%	21.28%	0.29%
lember Contributions	(10.32)%	(9.71)%	(0.61)%
Employer Normal Cost	11.25%	11.57%	(0.32)%
JAAL Amortization	19.72%	19.83%	(0.11)%
Fotal County Rate	30.97%	31.40%	(0.43)%

Notes:

1) Detailed contribution rates by plan are shown in Section 6, Exhibits 12a & 12b, and page 2 of the Addendum.

2) As of the 2011 actuarial valuation, the member contribution rates for current members of the California Nurses Association reflect 25% of the cost of COLA, in addition to previously effective member rates and cost sharing.

3) The member contribution rates this year reflect changes resulting from the 2011 Investigation of Experience and a revision to the timing adjustment.



Recommendation #2	: Adopt new m	ember contribu	ution rates for f	iscal year begin	ning July 1, 201	2
		Re	commended Ra	ates	Current	
	Entry Age	Basic	Cost Sharing	Total as a % of Pay	Total as a % of Pay	Ratio (New/Curr)
General Members - Co	ounty <sup>(1)</sup>					
Plans 1 & 2	25	6.06%	3.00%	9.06%	9.03%	100.3%
	35	7.25%	3.00%	10.25%	10.22%	100.3%
	45	8.71%	3.00%	11.71%	11.67%	100.3%
Plan 4	25	5.80%	3.00%	8.80%	8.78%	100.2%
	35	6.94%	3.00%	9.94%	9.91%	100.3%
	45	8.29%	3.00%	11.29%	11.26%	100.3%
General Members - Sl	MC M&VCD					
Plans 1 & 2	25	6.06%	0.00%	6.06%	6.03%	100.5%
	35	7.25%	0.00%	7.25%	7.22%	100.4%
	45	8.71%	0.00%	8.71%	8.67%	100.5%
Plan 4	25	5.80%	0.00%	5.80%	5.78%	100.3%
	35	6.94%	0.00%	6.94%	6.91%	100.4%
	45	8.29%	0.00%	8.29%	8.26%	100.4%
Probation Members (I	Reflects Emplo	yer Pick-up)				
Plans 1 & 2	25	6.57%	3.50%	10.07%	10.03%	100.4%
	35	7.88%	3.50%	11.38%	11.33%	100.4%
	45	9.27%	3.50%	12.77%	12.71%	100.5%
Plan 4	25	6.29%	3.50%	9.79%	9.75%	100.4%
	35	7.54%	3.50%	11.04%	10.99%	100.5%
	45	8.72%	3.50%	12.22%	12.16%	100.5%
Safety Members - Oth	er than Deputy	v Sheriff <sup>(2)</sup>				
Plans 1 & 2	25	8.21%	5.00%	13.21%	13.16%	100.4%
	35	9.85%	5.00%	14.85%	14.78%	100.5%
	45	11.59%	5.00%	16.59%	16.52%	100.4%
Plan 4	25	7.86%	5.00%	12.86%	12.81%	100.4%
	35	9.43%	5.00%	14.43%	14.37%	100.4%
	45	10.90%	5.00%	15.90%	15.83%	100.4%

#### Exhibit 1b Summary of Recommendations (continued)

(1) Does not include members of the California Nurses Association, who will also contribute 25% of the cost of the COLA beginning with the 2011 actuarial valuation. See Appendix D of this report for a full schedule of rates.

(2) Cost Sharing varies for Deputy Sheriffs as follows:

3.0% if employee is less than 45 and has less than 5 years of service.

3.5% if employee is less than 45 and has between 5 and 15 years of service.

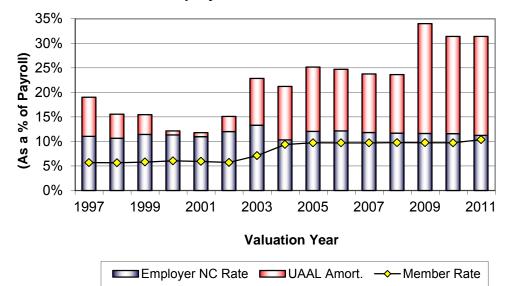
4.5% if employee is older than 45 or has at least 15 years of service.



sme0132.doc 35 003 SME 38/35.003.SME.10.2011 / NJC/nlo **Employer Contribution Rate** Under the Board's current funding objectives, the calculated employer contribution rate for the fiscal year beginning July 1, 2012 is 30.97% 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 the 30.97% is a weighted average for all *SamCERA* plans. The actual percent of payroll to be contributed by the employer varies by plan. See Exhibits 12a and 12b for the total employer contribution rates by plan.

The new rate is effective for the fiscal year beginning July 1, 2012. The 30.97% 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.



#### **Employer Contribution Rate**

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. As discussed earlier, contributions made to fund the plan were the primary reason for the increase in the Funded Ratio. There were several factors that influenced the employer contribution rate, with the overall impact being a small decrease.



#### 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. The most significant factors are shown in bold.

Sources of Change	Employer Contribution Rate	Funded Ratio
June 30, 2010 Actuarial Valuation	31.40%	70.3%
Expected Year-to-Year Change Recognized Asset Gain/Loss	0.00%	2.8%
From Current Year	-0.91%	1.3%
From Prior Years	1.18%	-1.6%
Retiree COLAs Less than Expected	-0.60%	0.6%
Salary / Payroll Variation	-0.05%	1.1%
Change in Average Entry Age and Plan	0.00%	0.0%
Assumption & Method Changes*	0.25%	-0.4%
County Rate > Required	-0.26%	0.0%
Increase in CNA Member Rate	-0.08%	0.0%
Other Experience Changes	0.04%	0.0%
Total Change	-0.43%	3.8%
June 30, 2011 Actuarial Valuation	30.97%	74.1%

\*Includes assumption changes adopted based on the 2011 Investigation of Experience and an adjustment to the methodology for member contribution rate timing.

#### **Funding Progress**

Based on the 2010 valuation, the expected UAAL as of June 30, 2011 was \$888 million. The actual UAAL for the fiscal year ending June 30, 2011 is \$842 million. This was primarily caused by smaller than assumed salary increases for active members and smaller than assumed cost-of-living adjustments for retired members. There were other factors that had a lesser impact 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 1990's, reaching almost 100% in 2001. However, due primarily to asset losses this decade, the Funded Ratio has decreased significantly since then. Currently, the Funded Ratio is 74.1%; that is, the actuarial value of assets of \$2,405 million is about 26% less than the actuarial accrued liabilities of \$3,247 million. Note that if the market value of assets was used, the Funded Ratio would be 71.4%.

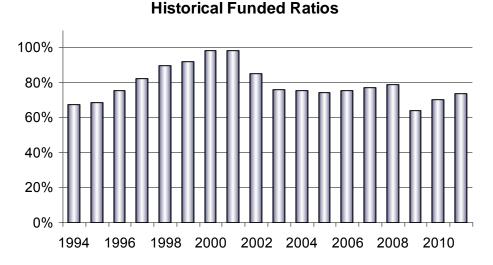


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# Funding Progress (continued)

(All dollar amounts in millions)

	Market	Actuarial Value			
	Value of Total Assets	Valuation	Non- Valuation	Actuarial Accrued Liability	Funded Ratio
2002	\$1,207	\$1,417	\$32	\$1,661	85.3%
2003	1,233	1,354	34	1,782	76.0
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	2,317	2,405	0	3,247	74.1



#### Assets

For the fiscal year ending June 30, 2011, we estimate that *SamCERA* earned 23.7%, net of investment expenses, on its market assets. Note that our return figure may be slightly different than that shown in the 2011 CAFR due to timing of contributions and benefit payments, as well as the treatment of expenses.

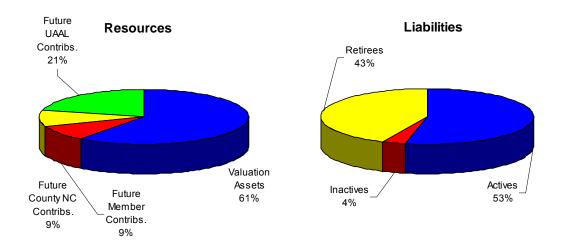
SamCERA uses an asset-smoothing method in the calculation of the UAAL contribution. Under this method, the market value returns are smoothed over a five-year period. Due to the recognition of deferred prior year asset losses, the return on actuarial valuation assets, at 7.2%, net of expenses, was less than the market return.



#### 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.



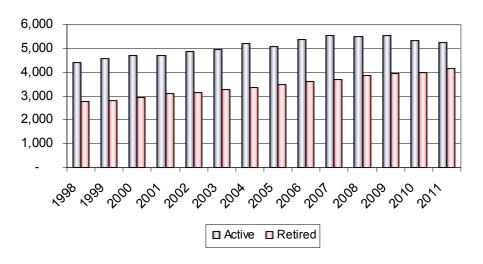


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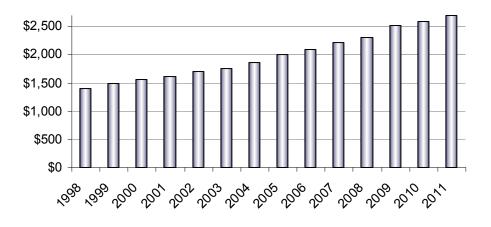
# **Member Information** The number of active members included in the valuation decreased by 1.9% from 5,347 in 2010 to 5,245 in 2011.

Retired member counts and average retirement benefit amounts continue to increase steadily. For 2011, there were 4,147 retired members and beneficiaries with an average benefit of \$2,706 per month. This represents a 3.6% increase in count (up from 4,002 in 2010), and a 4.1% increase in the average monthly benefit (up from \$2,601 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, 2010 Valuation	5,347	1,207	4,002
Termination without Refund	(173)	173	-
Termination with Refund	(106)	(21)	-
Active/Deferred Death with Annuity	(5)	(2)	7
Service Retirement	(161)	(77)	238
Disability Retirement	(3)	(5)	8
Retiree Death without Beneficiary	-	-	(108)
New Entrants	261	-	-
Rehires	85	(85)	
Total Change	(102)	(17)	145
June 30, 2011 Valuation	5,245	1,190	4,147

# Summary Valuation Results

The following Exhibit 2 presents a summary of key results from June 30, 2011 and June 30, 2010, and how they changed over the past year. 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, 2011		June 30, 2010	Relative Change
1.	Total Membership					
	A. Active Members		5,245		5,347	(1.9)%
	B. Retired Members & Beneficiaries		4,147		4,002	3.6%
	C. Vested Terminated Members		1,190		1,207	(1.4)%
	D. Total		10,582		10,556	0.2 %
2.	Pay Rate					
	A. Annual Total (\$thousands)	\$	432,542	\$	437,130	(1.0)%
	B. Monthly Average	\$	6,872	\$	6,813	0.9%
3.	Average Monthly Benefit to Current Retirees and Beneficiaries					
	A. Service Retirement	\$	2,839	\$	2,723	4.3%
	B. Disability Retirement	\$	2,797	\$	2,720	2.8%
	C. Surviving Spouse and Dependents	\$	1,836	\$	1,800	2.0%
	D. Total	\$	2,706	\$	2,601	4.1%
4.	Actuarial Accrued Liability (\$thousands)					
	A. Active Members	\$	1,380,509	\$	1,353,308	2.0%
	B. Retired Members	\$ \$ \$	1,719,251	\$	1,588,037	8.3%
	C. Vested Terminated Members	-	146,967	\$	157,108	(6.5)%
	D. Total	\$	3,246,727	\$	3,098,453	4.8%
5.	Assets					
	A. Market Value of Fund (\$thousands)	\$	2,317,493	\$	1,815,896	27.6%
	B. Return on Market Value* C. Actuarial Value (\$thousands)	\$	23.7% 2,405,140	\$	12.2% 2,179,076	10.4%
	D. Return on Actuarial Value*	Ψ	7.2%	Ψ	12.7%	10.470
	* May differ from return reported in CAFR du treatment of expenses.	e to timii	ng of contributions	and be	enefit payments ar	nd
6.	Unfunded Actuarial Accrued Liability					
	or Surplus Funding (\$thousands)	\$	841,587	\$	919,377	(8.5)%
7.	Required employer contribution rate for all plans combined as a percent of total payroll	;				
	A. Gross Normal Cost		21.57%		21.28%	1.4%
	B. Member Contributions		(10.32)%		(9.71)%	6.3%
	C. Employer Normal Cost		11.25%		11.57%	(2.8)%
	D. UAAL Amortization		19.72%		19.83%	(0.6)%
	E. Total Employer Rate		30.97%		31.40%	(1.4)%
8.	Funded Ratio (5C / 4D)		74.1%		70.3%	5.3%
9.	Results Based on Market Value (No Asset Smo	othing)	- For Informational	Purpos	ses Only	
	A. Total Employer Rate	0,	33.30%	•	38.96%	(14.5)%
	B. Funded Ratio (5A / 4D)		71.4%		58.6%	21.8%



### Section 2: Scope of the Report



This report presents the actuarial valuation of the San Mateo County Employees' Retirement Association as of June 30, 2011. 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, 2011.

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 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, 2011.
- Appendix C Schedules of valuation data classified by various categories of members by plan.
- Appendix D Member contribution rates by plan.
- Appendix E A glossary of actuarial terms used in this report.
- Addendum Contribution rates for new Plans 5 & 6.



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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, 2011. 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.

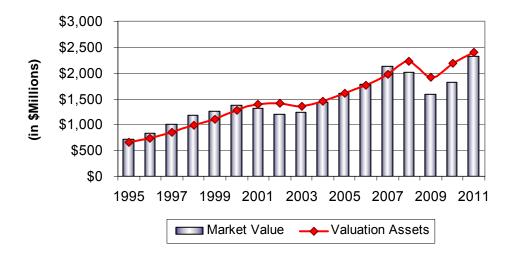
A historical summary of SamCERA's assets is presented below:

All dollar amounts in millions				
		Actuari	al Value	
	Market Value of <u>Total Assets</u>	Non- Valuation <u>Reserves</u>	Valuation <u>Assets</u>	
2000	\$ 1,381	\$49	\$ 1,271	
2001	1,308	51	1,385	
2002	1,207	32	1,417	
2003	1,233	34	1,354	
2004	1,435	31	1,453	
2005	1,599	0	1,616	
2006	1,790	0	1,769	
2007	2,132	0	1,977	
2008	2,011	0	2,219	
2009	1,591	0	1,910	
2010 2011	1,816	0	2,179	
2011	2,317	0	2,405	

On June 30, 2011, the total market value of the fund was about \$2.32 billion. The actuarial value of the fund was determined to be \$2.41 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 <i>SamCERA</i> 's assets by the various reserve values determined for accounting purposes.
	Exhibits 3-5 are taken directly from data furnished to us by <i>SamCERA</i> for their 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. The current assumed rate of return, as recommended for this valuation, is 7.75%, 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, 2011 actuarial value of assets is shown in Exhibits 6 and 7. Note the smoothing process has recognized all of the investment gains and losses from 2006 and earlier over the last few years. However, there are still portions of investment losses that have not yet been recognized by the asset smoothing method. The result is a market value of assets that is less 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.



#### Exhibit 3: Statement of Plan Net Assets for the Years Ended June 30, 2010 and 2011

	2011	2010
Assets		
Cosh and Cosh Equivalanta	050 004 047	74 000 050
Cash and Cash Equivalents	253,934,047	74,232,656
Securities Lending Cash Collateral	5,196,620	181,645,752
Total Cash	\$ 259,130,667 \$	255,878,408
Receivables		
Contributions	10,470,382	7,464,274
Due from broker for investments sold	148,074,596	83,850,705
Investment Income	5,800,573	4,654,787
Other receivables	113,735	113,787
Securities Lending Income	67,915	47,428
Total Receivables	164,527,200	96,130,980
Prepaid Expense	7,669	7,669
Investments at Fair Value		
Domestic fixed income securities	585,292,394	505,441,320
Domestic equities	932,277,233	797,467,287
International equities	398,753,172	341,048,550
Real estate	135,475,106	109,210,472
Private Equities	3,458,419	-
Risk Parity	145,620,720	-
Hedge Funds	69,986,280	-
Total Investments	2,270,863,323	1,753,167,629
Capital Assets Net of Depreciation	_	_
Total Assets	2,694,528,860	2,105,184,686
	_,,,	_,,
Liabilities		
Payables	4 000 000	4 500 440
Investment management fees	1,869,336	1,562,410
Due to broker for investments purchased	175,192,142	105,212,469
Collateral Payable for Securities Lending	196,435,881	181,645,752
Mortgage Note Payable		
Due within one year	-	-
Due in more than one year	-	-
Other Total Liabilities	3,538,208	867,600
Total Liabilities	377,035,567	289,288,231
Net Assets Held in Trust for Pension Benefits	\$ 2,317,493,293 \$	1,815,896,455



# Exhibit 4:Statement of Changes in Plan Net Assets<br/>for the Years Ended June 30, 2010 and 2011

	2011	2010
Additions		
Contributions Employer Employee Total Contributions	\$	\$ 106,265,329 50,318,477 156,583,806
Investment Income/(Loss) Interest and dividends Net appreciation/(depreciation) in Fair Value	44,187,379 407,110,954 451,298,333	42,179,828 162,137,189 204,317,017
Less investment expense Net Investment Income/(Loss)	13,926,969 437,371,363	8,905,477 195,411,540
Securities Lending Income Earnings Less securities lending expense Net Securities Lending Income	558,768 28,457 530,311	988,514 245,578 742,936
Other Additions Total Additions/(Declines)	73,305 <b>637,462,878</b>	41,474 <b>352,779,756</b>
Deductions		
Association Benefits Service retirement allowances Disability retirement allowances Medical Benefits	114,422,667 14,552,927	106,607,286 14,585,746
Death and other death benefits Total Association Benefits	858,946 129,834,541	948,059 122,141,091
Refunds of members' contributions Administrative Expense Other Expense	2,474,445 3,547,526 9,529	2,736,025 3,372,967 32,776
Total Deductions	135,866,040	128,282,859
Net Increase/(Decrease)	501,596,838	224,496,897
Net Assets Held in Trust for Pension Benefits:		
Beginning of Year	1,815,896,455	1,591,399,558
End of Year	2,317,493,293	1,815,896,455
Estimated Return, Net of Investment Expenses *	23.7%	12.2%

\* 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, 2010 and 2011

Valuation Reserves	2011	2010			
1. Member Deposit Reserve	\$ 485,125,877	\$	449,354,818		
2. County Advance Reserve	310,568,622		264,507,768		
3. Retiree Reserves	765,312,627		693,630,776		
4. Cost of Living Reserve	760,505,829		682,673,956		
5. Total Valuation Reserves	\$ 2,321,512,954	\$	2,090,167,318		
Non-Valuation Reserves	2011		2010		
1. Contingency Reserve					
a. Reserves for Deficiencies in Interest Earnings	\$ -	\$	-		
b. Unallocated Earnings / Loss Account	 83,627,120		88,908,428		
c. Total	\$ 83,627,120	\$	88,908,428		
2. Market Stabilization Account	(87,646,780)		(363,179,291)		
3. Total Non-Valuation Reserves	\$ (4,019,660)	\$	(274,270,863)		
4. Total Reserves (Market Value of Assets)	\$ 2,317,493,293	\$	1,815,896,455		

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)
6/30/2011 \$	2,167,939,516	\$ 96,998,690	\$ 67,484,144	2,317,493,293	3.875%	\$ 85,497,449	\$ 120,039,230	\$ 34,541,781
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)
6/30/2008	2,180,911,208	37,433,714	55,033,629	2,010,738,768	3.875%	84,025,724	(152,572,525)	(236,598,249)
12/31/2007	2,131,614,629	128,017,039	52,010,887	2,180,911,208	3.875%	85,498,735	(26,709,573)	(112,208,308)
6/30/2007	2,035,751,839	29,280,037	49,671,897	2,131,614,629	3.875%	78,382,391	116,254,650	37,872,259

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

	Phase-Out of Gain / (Loss)						
Six-Month Period Ended	Percent Excluded	Unexpected Gain / (Loss)					Gain / (Loss) Excluded
6/30/2011	90%	x	\$	34,541,781	=	\$	31,087,603
12/31/2010	80%	х		242,116,312	=		193,693,050
6/30/2010	70%	х		(138,062,572)	=		(96,643,800)
12/31/2009	60%	х		195,837,576	=		117,502,546
6/30/2009	50%	х		(32,021,328)	=		(16,010,664)
12/31/2008	40%	х		(569,104,010)	=		(227,641,604)
6/30/2008	30%	х		(236,598,249)	=		(70,979,475)
12/31/2007	20%	х		(112,208,308)	=		(22,441,662)
6/30/2007	10%	х		37,872,259	=		3,787,226
Total Gain / (Loss)	) Excluded = Mar	ket S	Stab	ilization Reserve	=	\$	(87,646,780)

# **Development of Market Stabilization Reserve**

# **Development of Valuation Assets**

1.	Market Value of Assets as of June 30, 2011		\$ 2,317,493,293
2.	Preliminary Market Stabilization Reserve		 (87,646,780)
3.	Preliminary Actuarial Value of Assets (1) - (2)		2,405,140,073
4.	Corridor Around Market Value a) Minimum = 80% of Market b) Maximum = 120% of Market c) Corridor Adjustment	1,853,994,634 2,780,991,951	0
5.	Market Stabilization Reserve	(87,646,780)	
6.	Gross Actuarial Valuation of Assets (3) - (4c)		\$ 2,405,140,073
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)		\$ 2,405,140,073



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# Exhibit 8: Allocation of Valuation Assets

(Dollars in Thousands)

	(	General	Safety	Р	robation	Total
1. Prior Year UAAL	\$	630,931	\$ 230,537	\$	57,909	\$ 919,377
2. Expected UAAL Contribution for Preceding Year		(68,140)	(25,676)		(6,138)	(99,954)
3. Expected Interest at 7.75%		46,306	16,890		4,255	67,451
4 Expected UAAL Based on Prior Year Assumptions		609,097	221,751		56,026	886,874
5. Percentage of Total Expected UAAL		68.68%	25.00%		6.32%	100.00%
6. Actual UAAL Based on Prior Year Assumptions						822,133
7. Actual AAL Based on Prior Year Assumptions	\$	2,379,915	\$ 657,404	\$	189,954	\$ 3,227,273
8. Allocated UAAL Based on Prior Year Assumptions		564,634	205,563		51,936	822,133
9. Actuarial Value of Assets	\$	1,815,281	\$ 451,841	\$	138,018	\$ 2,405,140



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# Section 4: Actuarial Liabilities

A THE MAN	In the previous section, an actuarial valuation was compared with an inventory process, and an analysis was given of the inventory of <i>SamCERA</i> 's assets as of the valuation date, June 30, 2011. In this section, the discussion will focus on the commitments of <i>SamCERA</i> for retirement benefits, which are referred to as its actuarial liabilities.
	In an active system, the 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 and investment returns. 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, 2011.
	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 assumptions will next be reviewed in detail in 2014 as part of the triennial investigation.



# Exhibit 9: Actuarial Balance Sheet – June 30, 2011 (Dollars in Thousands)

Resources							
		General		Safety	Ρ	robation	Total
Valuation Assets (Actuarial)	\$	1,815,281	\$	451,841	\$	138,018	\$ 2,405,140
Present Value of Future Member Contributions	\$	290,602	\$	52,084	\$	23,595	\$ 366,281
Present Value of Future Employer Contributions to Fund:							
a) Normal Cost	\$	264,706	\$	71,889	\$	44,202	\$ 380,797
b) Unfunded Actuarial Accrued Liability	\$	579,208	\$	209,839	\$	52,540	\$ 841,587
Total Resources	\$	2,949,797	\$	785,653	\$	258,355	\$ 3,993,805

	Liabilities	5				
	General		Safety	F	Probation	Total
Present Value of Future Benefits						
1. Present Retired Members	\$ 1,232,144	\$	402,812	\$	84,295	\$ 1,719,251
2. Current Inactive Members	123,503		17,427		6,037	146,967
3. Current Active Members						
- Service Retirement	1,433,851		333,057		150,722	1,917,630
- Disability Retirement	55,822		16,385		8,355	80,562
- Death Benefits	23,588		6,741		3,321	33,650
- Deferred Vested Benefit	56,020		7,843		5,090	68,953
- Refund of Member Contributions	24,869		1,388		535	26,792
- Total Active	1,594,150		365,414		168,023	2,127,587
Total Actuarial Liabilities	\$ 2,949,797	\$	785,653	\$	258,355	\$ 3,993,805



Actuarial Balance Sheet – Resources	For the purpose of the Actuarial Balance Sheet, SamCERA's resources are equal to the sum of:
	<ul> <li>(a) Assets currently available to pay benefits and considered for funding purposes, the Valuation Assets,</li> </ul>
	<ul><li>(b) The present value of future contributions expected to be made by current active Members, and</li></ul>
	(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
	<ul> <li>Whatever amount is left over, which is used to amortize what is called the UAAL.</li> </ul>
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 member contribution rates are determined based upon requirements established in the '37 Act and the actuarial assumptions. 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 <i>SamCERA</i> for all plans are summarized below:			
	(Dollars in millions)	2011	2010	Percent Change
	A. Actuarial present value of all future benefits for contributing members, former contributing members, and their survivors	\$ 3,994	\$ 3,835	4.1%
	<ul> <li>B. Actuarial present value of total future Normal Costs for current members</li> </ul>	<u>747</u>	<u>737</u>	1.4%
	C. Actuarial accrued liability [A-B]	\$ 3,247	\$ 3,098	4.8%
	D. Valuation Assets	<u>2,405</u>	<u>2,179</u>	10.4%
	E. UAAL or Surplus Funding [C-D]	\$ 842	\$ 919	(8.5)%
	F. Funded Ratio [D/C]	74.1%	70.3%	5.3%



Unfunded Actuarial Accrued Liability/ Surplus Funding	The portion allocated to service already rendered or ac called the Actuarial Accrued Liability. The difference be Actuarial Accrued Liability and the Valuation Assets is of Unfunded Actuarial Accrued Liability (UAAL). If a UAA exists, it usually results from prior years' benefit or assu- changes and the net effect of accumulated gains and lo the employer had always contributed the current Norma- there were no prior benefit or assumption changes and experience exactly matched the actuarial assumptions, present value of all future Normal Cost contributions we sufficient to fund all benefits and there would be no UAA Exhibit 9 shows how the UAAL was derived for each classification. In the Actuarial Balance sheet, the total accrued liability for all future benefits must be equal to the and future assets.	etweer called L amo umptic osses. al Cos if actu the ould be AL. actuar	n the the ount on If t, if ual e
Funding Adequacy	A key consideration in determining the adequacy of the <i>SamCERA</i> is how the UAAL is being funded. If the UA is positive, that is, the Actuarial Accrued Liability to be figreater than the Valuation Assets, then the UAAL is am Under the current funding method, the June 30, 2008 L amortized over a fixed period ending June 30, 2023. A in the UAAL in future years will be amortized separately 15-year periods from the valuation date at which the difficultated, including the change in UAAL as of June 30, 2008 L	AL an fundeo nortize JAAL i JAAL i ny cha y over fferenc	nount d is ed. is ange new ce is
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 2011 actuarial valuation reflects a decrease in the UAAL of \$77.8 million for the fiscal year just ended.		
	Unfunded Actuarial Accrued Liability - June 30, 2010	\$	919.4
	Expected Increase / (Decrease) *		(31.5)
	Expected UAAL - June 30, 2011	\$	887.9
	Asset (Gains) and Losses Retiree COLA Less than Expected Salary Increases Less than Expected Assumption Changes Other Liability (Gain)/Loss		12.5 (27.6) (48.5) 19.4 (2.1)
	Total Changes		(46.3)
	Actual UAAL - June 30, 2011	\$	841.6
	* Based on calculated contribution.		



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### Section 5: Member Contributions



Basic Contributions For *SamCERA*, member contributions are of two types: Basic contributions and Cost Sharing contributions.

Basic contributions for each plan are defined in the following sections of the County Employees' Retirement Law:

Plan	Code Section	Contribution Provides 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
	tion	

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 on service retirement
- 4. No COLAs are assumed

The member contribution rates were recalculated as of the June 30, 2011 valuation to reflect the assumptions adopted in the June 30, 2011 investigation of experience report. The rates are shown in Appendix D.

Cost-Sharing Contributions	In addition to the basic rate, Plan 1, 2 and 4 County employees make additional cost-sharing contributions as shown in Appendix B. For valuation purposes, cost-sharing contributions are assumed to be permanent. The cost-sharing contributions are fixed and not impacted by changes in assumptions.
	are fixed and not impacted by changes in assumptions.

Cost-of-LivingBeginning in January 2012, current (as of August 6, 2011)Contributionsmembers of the California Nurses Association will contribute<br/>25% of the cost of COLA, in addition to all base and cost-sharing<br/>rates applicable. This change has been reflected in the 2011<br/>valuation.

Other current members do not contribute towards the cost-ofliving benefit.



Member Contribution Rates	A sample of the current member contribution rates (basic plus cost-sharing) can be found in Exhibit 10.
	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 pick-up for Probation members, but not other classes, due to the differing treatment of contributions for refund purposes.
	Full disclosure of the member rates, showing both the basic and the total (basic plus cost-sharing) contribution rates, can be found in Appendix D.



#### Exhibit 10: Sample Member Contribution Rates Effective July 1, 2012

		Rec	commended Rat	tes	Current	
	Entry		Cost	Total as a %	Total as a %	Ratio
	Age	Basic	Sharing	of Pay	of Pay	(New/Curr)
General Members - C	ounty <sup>(1)</sup>					
Plans 1 & 2	25	6.06%	3.00%	9.06%	9.03%	100.3%
	35	7.25%	3.00%	10.25%	10.22%	100.3%
	45	8.71%	3.00%	11.71%	11.67%	100.3%
Plan 4	25	5.80%	3.00%	8.80%	8.78%	100.2%
	35	6.94%	3.00%	9.94%	9.91%	100.3%
	45	8.29%	3.00%	11.29%	11.26%	100.3%
General Members - S	MC M&VCD					
Plans 1 & 2	25	6.06%	0.00%	6.06%	6.03%	100.5%
	35	7.25%	0.00%	7.25%	7.22%	100.4%
	45	8.71%	0.00%	8.71%	8.67%	100.5%
Plan 4	25	5.80%	0.00%	5.80%	5.78%	100.3%
	35	6.94%	0.00%	6.94%	6.91%	100.4%
	45	8.29%	0.00%	8.29%	8.26%	100.4%
Probation Members (	Reflects Empl	loyer Pick-up)				
Plans 1 & 2	25	6.57%	3.50%	10.07%	10.03%	100.4%
	35	7.88%	3.50%	11.38%	11.33%	100.4%
	45	9.27%	3.50%	12.77%	12.71%	100.5%
Plan 4	25	6.29%	3.50%	9.79%	9.75%	100.4%
	35	7.54%	3.50%	11.04%	10.99%	100.5%
	45	8.72%	3.50%	12.22%	12.16%	100.5%
Safety Members - Oth	her than Depu	ty Sheriff <sup>(2)</sup>				
Plans 1 & 2	25	8.21%	5.00%	13.21%	13.16%	100.4%
	35	9.85%	5.00%	14.85%	14.78%	100.5%
	45	11.59%	5.00%	16.59%	16.52%	100.4%
Plan 4	25	7.86%	5.00%	12.86%	12.81%	100.4%
	35	9.43%	5.00%	14.43%	14.37%	100.4%
	45	10.90%	5.00%	15.90%	15.83%	100.4%

(1) Does not include members of the California Nurses Association, who will also contribute 25% of the cost of the COLA beginning with the 2011 actuarial valuation. See Appendix D of this report for a full schedule of rates.

(2) Cost Sharing varies for Deputy Sheriffs as follows:

3.0% if employee is less than 45 and has less than 5 years of service.

3.5% if employee is less than 45 and has between 5 and 15 years of service.

4.5% if employee is older than 45 or has at least 15 years of service.



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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 11a & 11b 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 12a & 12b. These results are expressed as a percentage of payroll and annual contribution dollars. 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 31.40% for the fiscal year beginning July 1, 2011. For the fiscal year beginning in 2012, the calculated rate based on this report decreased to 30.97%. This is equal to the aggregate Employer Normal Cost contribution rate of 11.25% based on Milliman's 2011 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	11.25%
Total Amortization of UAAL	<u>19.72%</u>
Total Employer Contribution	30.97%



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 2011 valuation is paid over the remaining 14 years and is effective July 1, 2012.
	Exhibit 12c shows detail 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 3 and 4, instead of the slightly more expensive Plans 1 and 2. However, the change will be fairly gradual. This trend will continue as new members join Plans 5 and 6.
	(2) <b>Contribution Shut-Off</b> : For general members hired prior to March 7, 1973 and all Safety 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 is 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. As most general members hired prior to March 7, 1973 have now attained 30 years of service, this statement applies mainly to Safety groups.
	Additionally, this year the Normal Cost changed due to the adoption of new assumptions with the June 30, 2011 experience

Additionally, this year the Normal Cost changed due to the adoption of new assumptions with the June 30, 2011 experience study. Finally, we made a slight adjustment to the methodology for the member normal cost contribution timing, which resulted in a reduction to the Employer Normal Cost Rate.



#### Exhibit 11a: Calculated Employer Normal Cost Contribution Rates – June 30, 2011

	General - County (Excluding CNA members)						General - CNA Members**						General - SMCM&VCD*			
A. Normal Cost Contribution Rate	Plan 1	Plan 2	Plan 3	Plan 4	Total	Plan 1	<u>Plan 2</u>	Plan 3	Plan 4	Total	Plan 1	Plan 2	Plan 4	Total		
Service Retirement	15.96%	16.38%	7.23%	15.73%	15.64%	15.96%	16.38%	7.23%	15.73%	15.64%	13.74%	22.04%	14.24%	15.63%		
Disability Retirement	0.77%	0.89%	0.00%	0.99%	0.93%	0.77%	0.89%	0.00%	0.99%	0.93%	0.64%	1.20%	0.90%	0.22%		
Death while Active	0.28%	0.32%	0.00%	0.31%	0.30%	0.28%	0.32%	0.00%	0.31%	0.30%	0.29%	0.47%	0.29%	0.30%		
Termination (No Refund)	1.31%	1.22%	0.46%	1.20%	1.19%	1.31%	1.22%	0.46%	1.20%	1.19%	1.34%	1.12%	1.23%	1.23%		
Refund of Member Contributions	1.50%	1.51%	0.00%	1.56%	1.50%	1.50%	1.51%	0.00%	1.56%	1.50%	0.92%	1.20%	1.06%	1.06%		
Total	19.82%	20.32%	7.69%	19.79%	19.56%	19.82%	20.32%	7.69%	19.79%	19.56%	16.93%	26.03%	17.72%	18.44%		
B. Member Contributions	(9.27)%	(9.94)%	0.00%	(10.26)%	(9.85)%	(10.69)%	(11.12)%	0.00%	(11.10)%	(10.86)%	0.00%	(8.57)%	(6.83)%	(6.47)%		
C. Net Employer Normal Cost as of June 30, 2011 (A) - (B)	10.55%	10.38%	7.69%	9.53%	9.71%	9.13%	9.20%	7.69%	8.69%	8.70%	16.93%	17.46%	10.89%	11.97%		
D. Net Employer Normal Cost as of June 30, 2010	11.18%	10.83%	7.81%	9.79%	10.05%	11.18%	10.83%	7.81%	9.79%	10.05%	10.76%	16.52%	10.93%	11.70%		
E. Increase (Decrease) as a Percentage of Payroll (C) - (D)	(0.63)%	(0.45)%	(0.12)%	(0.26)%	(0.34)%	(2.05)%	(1.63)%	(0.12)%	(1.10)%	(1.35)%	6.17%	0.94%	(0.04)%	0.27%		

\* Normal Cost rates for Mosquito and Vector Control District reflect adoption of "enhanced" General County benefit formula beginning with 2010 actuarial valuation.

\*\* General County members belonging to the California Nurses' Association (CNA) contribute 25% of the cost of the COLA, in addition to regular member rates and cost sharing. The Gross Normal Cost Rate shown is the aggregate rate by Plan for General County and General CNA members.



#### Exhibit 11b: Calculated Employer Normal Cost Contribution Rates – June 30, 2011 (continued)

		Sat	ety			Proba	tion		All Plans
A. Normal Cost Contribution Rate	Plan 1	Plan 2	Plan 4	Total	Plan 1*	Plan 2	Plan 4	Total	
Service Retirement	33.43%	27.91%	26.35%	26.92%	28.29%	27.22%	24.57%	25.26%	17.48%
Disability Retirement	1.97%	1.97%	2.38%	2.24%	1.77%	1.89%	1.93%	1.92%	1.14%
Death while Active	1.01%	0.99%	0.91%	0.94%	1.03%	0.88%	0.84%	0.85%	0.41%
Termination (No Refund)	1.19%	1.31%	1.21%	1.24%	1.42%	1.29%	1.29%	1.29%	1.20%
Refund of Member Contributions	0.66%	0.64%	0.75%	0.71%	0.48%	0.53%	0.56%	0.55%	1.35%
Total	38.26%	32.82%	31.60%	32.05%	32.99%	31.81%	29.19%	29.87%	21.57%
B. Member Contributions	(10.57)%	(12.99)%	(13.14)%	(13.08)%	(3.50)%	(10.24)%	(10.39)%	(10.35)%	(10.32)%
C. Net Employer Normal Cost as of June 30, 2011 (A) - (B)	27.69%	19.83%	18.46%	18.97%	29.49%	21.57%	18.80%	19.52%	11.25%
D. Net Employer Normal Cost as of June 30, 2010	25.55%	20.31%	18.06%	19.01%	24.36%	22.13%	18.88%	19.85%	11.57%
E. Increase (Decrease) as a Percentage of Payroll (C) - (D)	2.14%	(0.48)%	0.40%	(0.04)%	5.13%	(0.56)%	(0.08)%	(0.33)%	(0.32)%

\* Only two active members remain in Probation Plan 1 remain. Both are assumed to retire immediately; therefore, there is no normal cost calculated for the upcoming year.

The Normal Cost Contribution Rate is set equal to the prior year's rate. The member rate is set equal to the cost-sharing rate, since the basic member rate has been "shut off."



## Exhibit 12a: Total Employer Contributions (Dollars In Thousands)

	General - County (Excludes CNA members)						General - CNA Members					General - SMCM&VCD**					
	Plan 1	Plan 2	Plan 3	Plan 4	Total	Plan	<u>1 Pla</u>	an 2	Plan 3	Plan 4	Total	Plan	<u>11</u>	Plan 2	Plan 4	Total	-
A. Basic Employer Normal Cost Rate	4.49%	5.44%	7.69%	6.09%	5.94%	3.8	3% 4	4.82%	7.69%	5.55%	5.32%	11.0	65%	11.20%	7.80%	8.44%	)
B. COLA Normal Cost Rate	6.06%	<b>4.94%</b>	0.00%	3.44%	3.77%	5.2	3% 4	4.38%	0.00%	3.14%	3.38%	5.2	28%	6.26%	3.09%	3.53%	,
C. Employer Normal Cost Rate	10.55%	i 10.38%	7.69%	9.53%	9.71%	9.1	1% 9	9.20%	7.69%	8.69%	8.70%	16.9	93%	17.46%	10.89%	11.97%	5
D. UAAL Contribution Rate	16.419	6 16.41%	16.41%	16.41%	16.41%	16.4	1% 16	6.41%	16.41%	16.41%	16.41%	16.4	41%	16.41%	16.41%	16.41%	<u>,</u>
E. Total June 30, 2011 Contribution Rate (C) + (D)	26.96	6 26.79%	24.10%	25.94%	26.12%	25.5	2% 2	25.61%	24.10%	25.10%	25.11%	33.	34%	33.87%	27.30%	28.38%	ó
F. Total June 30, 2010 Contribution Rate***	27.53%	5 27.18%	24.16%	26.14%	26.40%	27.5	3% 27	7.18%	24.16%	26.14%	26.40%	27.	11%	32.87%	27.28%	28.05%	)
G. Estimated Payroll for fiscal year beginning July 1, 2012	\$ 5,242	\$ 89,140	\$ 10,481	\$230,679	\$335,542	\$ 7	48 \$ 1 <sup>.</sup>	1,783	\$ 886	\$ 26,766	\$ 40,183	\$	127	\$ 146	\$ 1,269	\$ 1,542	_
H. Estimated Annual Contribution (E x G)*	\$ 1,413	\$ 23,876	\$ 2,525	\$ 59,827	\$ 87,628	<b>\$</b> 1	91 \$ 3	3,017	\$ 213	\$ 6,717	\$ 10,088	\$	42	\$ 49	\$ 346	\$ 438	

\* Estimated contributions shown for illustrative purposes based on monthly contributions. Actual contributions will vary depending on actual payroll and timing.

\*\*Normal Cost rates for Mosquito and Vector Control District reflect adoption of "enhanced" General County benefit formula beginning with 2010 actuarial valuation.

\*\*\*Prior year rates shown are those calculated in the June 30, 2010 actuarial valuation. The County elected to contribute higher rates than those shown.



## Exhibit 12b: Total Employer Contributions (continued) (Dollars In Thousands)

		Safe	ety			Proba	ition		All Plans
	Plan 1	Plan 2	Plan 4	Total	Plan 1	Plan 2	Plan 4	Total	
A. Basic Employer Normal Cost Rate	14.57%	10.89%	12.22%	11.80%	14.59%	12.92%	12.96%	12.96%	7.02%
B. COLA Normal Cost Rate	13.12%	8.94%	6.24%	7.17%	14.90%	8.65%	5.84%	6.56%	4.23%
C. Employer Normal Cost Rate	27.69%	19.83%	18.46%	18.97%	29.49%	21.57%	18.80%	19.52%	11.25%
D. UAAL Contribution Rate	40.16%	40.16%	40.16%	40.16%	21.62%	21.62%	21.62%	21.62%	19.72%
E. Total June 30, 2011 Contribution Rate (C) + (D)	67.85%	59.99%	58.62%	59.13%	51.11%	43.19%	40.42%	41.14%	30.97%
F. Total June 30, 2010 Contribution Rate**	70.05%	64.81%	62.56%	63.51%	45.98%	43.75%	40.50%	41.47%	31.40%
G. Estimated Payroll for fiscal year beginning July 1, 2012	\$ 922	\$ 18,126	\$ 36,182	\$ 55,230	<u>\$ 192</u>	\$ 7,015	\$ 18,875	\$ 26,082	\$457,037
H. Estimated Annual Contribution (E x G)*	\$ 626	\$ 10,874	\$ 21,211	\$ 32,659	\$98	\$ 3,030	\$ 7,629	\$ 10,730	\$141,544

\* Estimated contributions shown for illustrative purposes based on monthly contributions. Actual contributions will vary depending on actual payroll and timing.

\*\*Prior year rates shown are those calculated in the June 30, 2010 actuarial valuation. The County elected to contribute higher rates than those shown.



## Exhibit 12c: Supplemental Detail on UAAL Payments (Dollars in Thousands)

				Gener	al					
Date Established	Description	ance as of e 30, 2011	erest on Balance		. Payment on e 30, 2012 <sup>1</sup>		ance as of e 30, 2012 <sup>2</sup>	Remaining Period as of June 30, 2012	Am	y 1, 2012 ortization ayment
June 30, 2008	Initial UAAL	\$ 380,673	\$ 29,502	\$	41,224	\$	368,951	11 Years	\$	40,55
June 30, 2009	(Gain) / Loss	\$ 361,496	\$ 28,016	\$	36,734	\$	352,778	12 Years	\$	36,14
June 30, 2010	(Gain) / Loss	\$ (132,418)	\$ (10,262)	\$	(12,701)	\$	(129,979)	13 Years	\$	(12,49
June 30, 2011	(Gain) / Loss	\$ (30,543)	\$ (2,367)	\$	5,809 <sup>3</sup>	\$	(38,719)	14 Years	\$	(3,51
						Total	Amortization Pag	yment July 1, 2012:	\$	60,69
		 					Projected F	Payroll July 1, 2012:	\$	369,93
UAAL as o	of June 30, 2011:	\$ 579,208		UAAL	Contribution R	ate (as	a % of Payroll)	FYB July 1, 2012:		16.41
				Safet						
			 		Payment on	Del	ance as of	Remaining		y 1, 2012
Date Established	Description	ance as of e 30, 2011	erest on Balance		e 30, 2012 <sup>1</sup>		ance as of e 30, 2012 <sup>2</sup>	Period as of June 30, 2012		ortization ayment
June 30, 2008	Initial UAAL	\$ 138,914	\$ 10,766	\$	15,043	\$	134,637	11 Years	\$	14,80
June 30, 2009	(Gain) / Loss	\$ 132,576	\$ 10,275	\$	13,472	\$	129,379	12 Years	\$	13,25
June 30, 2010	(Gain) / Loss	\$ (49,532)	\$ (3,839)	\$	(4,751)	\$	(48,620)	13 Years	\$	(4,67
June 30, 2011	(Gain) / Loss	\$ (12,119)	\$ (939)	\$	4,899 <sup>3</sup>	\$	(17,957)	14 Years	\$	(1,6
						Total	Amortization Pag	yment July 1, 2012:	\$	21,75
							Projected F	Payroll July 1, 2012:	\$	54,15
UAAL as o	of June 30, 2011:	\$ 209,839		UAAL	Contribution R	ate (as	a % of Payroll)	FYB July 1, 2012:		40.1
				Probati	ion					
Date Established	Description	ance as of e 30, 2011	erest on Balance		. Payment on e 30, 2012 <sup>1</sup>		ance as of e 30, 2012 <sup>2</sup>	Remaining Period as of June 30, 2012	Am	y 1, 2012 ortizatior ayment
June 30, 2008	Initial UAAL	\$ 34,804	\$ 2,697	\$	3,769	\$	33,732	11 Years	\$	3,70
June 30, 2009	(Gain) / Loss	\$ 33,370	\$ 2,586	\$	3,392	\$	32,564	12 Years	\$	3,33
June 30, 2010	(Gain) / Loss	\$ (12,089)	\$ (937)	\$	(1,160)	\$	(11,866)	13 Years	\$	(1,14
June 30, 2011	(Gain) / Loss	\$ (3,545)	\$ (275)	\$	300 <sup>3</sup>	\$	(4,120)	14 Years	\$	(3
						Total		yment July 1, 2012:	\$	5,5
		 					,	Payroll July 1, 2012:	\$	25,57
	of June 30, 2011:	\$ 52,540			Contribution D	-+- /	- 0/ - / D II)	FYB July 1, 2012:		21.6

#### Explanatory Notes:

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

<sup>2</sup> The calculation of assets and liabilities used in the calculation of UAAL are as of June 30, 2011; whereas, the contribution rates are not effective until July 1, 2012. Therefore, the UAAL is adjusted to June 30, 2012 in the calculation of contribution rates.

<sup>3</sup> The 15-year amortization of UAAL does not begin until July 1, 2012; however, the UAAL amount is adjusted based on the July 1, 2011 contribution rate.



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



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 13, compares actuarial assets and liabilities of *SamCERA*, based on the actuarial funding method used. The required Schedule of Employer Contributions, Exhibit 14, 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 15 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).



CAFR (continued)	su	addition to the exhibits mentioned above, the following pporting information is supplied for inclusion in <i>SamCERA</i> 's AFR:
	•	Exhibit 16 – History of employer contribution rates.
	•	Exhibit 17 – Actuarial analysis of financial experience.
	1	Exhibit 18 – Summary of significant actuarial statistics and measurements.
	•	Exhibit 19 – Summary of <i>SamCERA</i> membership. For more detailed information on the valuation data, see Appendix C.
	•	Exhibit 20 – Summary of active member valuation data.
	1	Exhibit 21 – Summary of demographic activity of retirees and beneficiaries.
	•	Exhibit 22 – Average salary and active counts by employer.
	•	Exhibit 23 – Summary of retired and inactive benefits.
	1	Exhibit 24 – Summary of actuarial assumptions and cost method. For more detailed information, see Appendix A.



## Exhibit 13: Schedule of Funding Progress (Dollars In Thousands)

Actuarial Valuation Date*	(a) Actuarial Value of Valuation Assets	(b) Actuarial Accrued Liabilities	(b-a) Infunded Actuarial Accrued Iities (UAAL)	(a/b) _Funded Ratio_	Cove	(c) ered Payroll	[(b-a)/c] UAAL as a Percentage of Covered Payroll
June 30, 2002	\$ 1,416,821	\$ 1,660,566	\$ 243,745	85.3%	\$	301,891	80.74%
June 30, 2003	1,353,941	1,781,544	427,603	76.0%		323,896	132.02%
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%

\*Information for years prior to 2005 reported by prior actuaries.



## Exhibit 14: Schedule of Contributions from the Employer (All Dollars In Thousands)

Fiscal Year Ending*	Annual Required Contribution (ARC)**	Actual Employer Contributions	Percentage of ARC Contributed
6/30/2002	33,541	33,541	100%
6/30/2003	36,070	36,070	100%
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%

\*Information for years prior to 2005 reported by prior actuaries.

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



#### Exhibit 15: Solvency Test

(Dollars In Thousands)

		Acti	uarial Accrued Liabi	lities for				
		Active Member	Retirees and	Active Members (Employer Financed	Portion of Actuarial Accrued Liabilities Covered by Assets			
Actuarial Valuation Date <sup>(1)</sup>	Valuation Assets	Contributions (A)	Beneficiaries <sup>(2)</sup> (B)	Portion) (C)	(A)	<u>(B)</u>	(C)	
June 30, 2002	\$ 1,416,821	\$ 190,450	\$ 866,985	\$ 785,082	100%	100%	46%	
June 30, 2003	1,353,941	202,551	858,273	915,108	100%	100%	32%	
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%	

(1) Information for years prior to 2005 reported by prior actuaries.

(2) Includes deferred vested.



## Exhibit 16: History of Employer Contribution Rates (Dollars In Thousands)

	County Rates <sup>(1)</sup>											
Valuation	General Mer	mber (exclud	ing Nurses)	Genei	ral Member (N	urses)	Saf	ety Member	-	Probation Member		
Year	Normal	UAAL	Total	Normal	UAAL	Total	Normal	UAAL	Total	Normal	UAAL	Total
2002	9.71%	0.70%	10.41%	Same as County General			17.22%	1.50%	18.72%	16.76%	1.17%	17.93%
2003	11.00%	4.60%	15.60%	Same as County General			21.99%	12.74%	34.73%	23.45%	8.10%	31.55%
2004	9.76%	8.25%	18.01%	Same as County General			15.34%	24.82%	40.16%	16.17%	15.28%	31.45%
2005	10.36%	10.38%	20.74%	Same as County General			20.43%	32.02%	52.45%	21.10%	16.43%	37.53%
2006	10.49%	9.97%	20.46%	Same as County General			20.18%	30.52%	50.70%	21.59%	14.85%	36.44%
2007	10.19%	9.46%	19.65%	Same	e as County G	eneral	19.94%	29.32%	49.26%	20.83%	14.06%	34.89%
2008	10.16%	9.81%	19.97%	Same as County General			19.32%	27.31%	46.63%	20.05%	12.81%	32.86%
2009	10.11%	18.40%	28.51%	Same as County General			19.21%	51.83%	71.04%	19.92%	23.84%	43.76%
2010	10.05%	16.35%	26.40%	Same as County General			19.01%	44.50%	63.51%	19.85%	21.62%	41.47%
2011	9.71%	16.41%	26.12%	8.70%	16.41%	25.11%	18.87%	41.75%	60.62%	19.50%	22.30%	41.80%

Rates for Mosquito and Vector Control District <sup>(2)</sup>							
Valuation	G	eneral Membe	er				
Year	Normal	UAAL	Total				
2006	8.76%	8.18%	16.94%				
2007	8.50%	7.76%	16.26%				
2008	8.55%	8.04%	16.59%				
2009	8.25%	15.09%	23.34%				
2010	11.70%	16.35%	28.05%				
2011	11.48%	16.96%	28.44%				

- (1) Information for years prior to 2005 reported by prior actuaries.
- (2) 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).
- (3) Beginning with the 2011 actuarial valuation, members of the California Nurses Association contribute 25% of the cost of COLA, in addition to current member rates and cost sharing.



#### Exhibit 17: Actuarial Analysis of Financial Experience

Summary of (Gains) / Losses	Change In Liability							
	2011	2010	2009	2008	2007			
Unfunded Liability as of July 1	\$ 919,377,000	\$ 1,078,033,000	\$ 587,285,000	\$ 578,773,000	\$ 576,128,000			
Expected Change in UAAL	(31,508,000)	27,388,000	(11,786,000)	(31,649,000)	(16,745,000)			
Salary (Gain) / Loss	(51,831,000)	(43,598,000)	(10,081,000)	(19,946,000)	45,157,000			
Fewer Withdrawals than expected								
Retiree COLA more / (less) than expected	(27,561,000)	(41,258,000)	1,080,000	937,000	(3,380,000)			
Asset (Gain) / Loss	12,548,000	(88,485,000)	522,444,000	(20,078,000)	(22,639,000)			
Change due to Assumption Changes	19,402,000			61,011,000				
Ventura Benefits & Asset transfers								
Miscellaneous Experience	1,160,000	(12,703,000)	(10,909,000)	18,237,000	252,000			
Change Due to New Formula								
Unfunded Liability as of June 30	\$ 841,587,000	\$ 919,377,000	\$ 1,078,033,000	\$ 587,285,000	\$ 578,773,000			



## Exhibit 18: Summary of Significant Actuarial Statistics and Measures

_		 June	e 30th	of	Relative
		2011		2010	Change
I.	Active Members				
	Number of Members	5,245		5,347	(1.9)%
	Average Age	45.7		45.4	0.7%
	Average Credited Service	10.6		10.2	3.9%
	Total Active Payroll (\$thousands)	\$ 432,542	\$	437,130	(1.0)%
	Average Monthly Salary	\$ 6,872	\$	6,813	0.9%
II.	Retired Members				
	Number of Members				
	Service Retirement	3,242		3,108	4.3 %
	Disability Retirement	370		365	1.4 %
	Beneficiaries	535 71.3		529 71.3	1.1 %
	Average Age Actual Retiree Benefits Paid (\$thousands)	\$ 129,835	\$	122,141	(0.1)% 6.3 %
					4.0%
	Average Monthly Pension	\$ 2,706	\$	2,601	4.0%
III.	Inactive Vested Members	1,190		1,207	(1.4)%
IV.	Assets				
	Market Value of Fund (\$thousands)	\$ 2,317,493	\$	1,815,896	27.6%
	Return on Market Value	23.7%		12.2%	
	Valuation Assets (\$thousands)	\$ 2,405,140	\$	2,179,076	10.4%
	Return on Valuation Assets	7.2%		12.7%	
V.	Liability Values (\$thousands)				
	Actuarial Accrued Liability	\$ 3,246,727	\$	3,098,453	4.8%
	Unfunded Actuarial Accrued Liability	\$ 841,587	\$	919,377	(8.5)%
	Deferred Asset (Gains) / Losses	\$ 87,647	\$	363,179	
VI.	Funded Ratio				
	GASB 25 (based on valuation assets)	74.1%		70.3%	5.3%



## Exhibit 19: Summary of SamCERA Membership

Plan	One	Two	Three	Four	Total
Retirees and beneficiaries curre	ently receivin	a benefits:			
General	1,979	1,389	102	153	3,623
Safety	285	110	-	10	405
Probation	71	42	-	6	119
Subotal	2,335	1,541	102	169	4,147
Terminated employees entitled	to but not cu	rrently receivi	ng benefits (I	Deferred):	
General	31	458	111	481	1,081
Safety	1	32	-	31	64
Probation	-	20	-	25	45
Subotal	32	510	111	537	1,190
Current employees:					
Vested:					
General	63	1,102	77	1,957	3,199
Safety	6	132	-	195	333
Probation	2	75	-	181	258
Non-Vested:					
General	-	-	74	1,221	1,295
Safety	-	-	-	113	113
Probation	-	-	-	47	47
Subotal	71	1,309	151	3,714	5,245
Total SamCERA Membership	2,438	3,360	364	4,420	10,582



## Exhibit 20: Summary of Active Member Valuation Data

Valu	ation Date	Members	Annual Salary	Average	% Change
				Annual Salary	Average Salary
2002	General	4,159		\$60,192	6.7%
	Safety	431	\$34,405,000	\$79,824	5.1%
	Probation	282	\$17,142,000	\$60,792	6.8%
	Total	4,872	\$301,891,000	\$61,968	6.6%
2003	General	4,213		\$63,408	5.3%
	Safety	434	\$37,973,000	\$87,492	9.6%
	Probation	290	, , ,	\$64,740	6.5%
	Total	4,937		\$65,964	5.9%
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		\$110,367	2.9%
	Probation	330		\$79,608	4.6%
	Total	5,543		\$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		\$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		\$116,758	2.2%
	Probation	305		\$80,628	0.0%
I	Total	5,245		\$82,468	0.9%

\*Numbers prior to 2006 were reported on a different basis.



#### Exhibit 21: Summary of Demographic Activity of Retirees and Beneficiaries

	Add	ed to Rol	ls(1)	Remo	oved from	n Rolls	Roll	s end c	of year			
		Allo	nnual wances		Allo	nnual wances			otal Retiree Payroll	% Increase	N	verage Ionthly
Year Ended	No.	in Tr	ousands	No.		nousands	No.(2)	IN	Thousands	in Payroll	Allo	owances
June 30, 2002	194	\$	N/A	138	\$	N/A	3,309	\$	66,974	7.3 %	\$	1,627
June 30, 2003	128		N/A	115		N/A	3,322		69,451	3.7		1,676
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	209		19,539	64		2,916	4,147		135,675	14.0		2,706

(1) Amount added to rolls includes COLAs granted in year to continuing retirees and beneficiaries.

(2) 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.



#### Exhibit 22: Average Salary and Active Counts by Employer

	2011	2010	2009	2008	2007
General Plan 1	\$7,630	\$7,543	\$7,534	\$7,252	\$7,175
General Plan 2	\$7,208	\$7,193	\$7,120	\$6,872	\$6,688
General Plan 3	\$5,968	\$5,818	\$5,791	\$5,619	\$5,287
General Plan 4	\$6,398	\$6,348	\$6,212	\$5,914	\$5,714
General Plan Total	\$6,599	\$6,569	\$6,468	\$6,211	\$6,054
Safety Plan 1	\$12,073	\$11,578	\$10,889	\$11,113	\$10,212
Safety Plan 2	\$10,789	\$10,548	\$10,135	\$9,612	\$9,299
Safety Plan 4	\$9,230	\$8,931	\$8,610	\$8,349	\$7,882
Safety Plan Total	\$9,730	\$9,525	\$9,197	\$8,937	\$8,538
Probation Plan 1	\$7,533	\$8,922	\$9,751	\$9,791	\$8,522
Probation Plan 2	\$7,349	\$7,393	\$7,341	\$6,960	\$6,899
Probation Plan 4	\$6,505	\$6,456	\$6,291	\$5,978	\$5,766
Probation Plan Total	\$6,719	\$6,722	\$6,634	\$6,344	\$6,171
Grand Total	\$6,872	\$6,813	\$6,692	\$6,433	\$6,260

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

\*Numbers prior to 2006 were reported on a different basis.

#### Participating Employers and Active Members

	2011	2010	2009	2008	2007
County of San Mateo					
General Members	4,476	4,589	4,758	4,718	4,742
Safety Members	446	425	436	432	443
Probation Members	305	313	330	325	329
Total	5,227	5,327	5,524	5,475	5,514
San Mateo County Mosqui	to and Vecto	or Control D	District		
General Members Total	18	20	19	25	25
-					
Total Active Membership	5,245	5,347	5,543	5,500	5,539



## Exhibit 23: Summary of Retired and Inactive Benefits

<b>Retired Members</b>	2011	2010	2009	2008	2007
Service Retirement					
Number	3,242	3,108	3,032	2,958	2,835
Annual Allowance					
Basic Only	\$ 87,254,000	\$ 79,007,000	\$ 73,038,000	\$ 66,704,000	\$ 59,687,000
COLA	\$ 23,212,000	\$ 22,542,000	\$ 22,964,000	\$ 21,289,000	\$ 19,382,000
Total	\$ 110,466,000	\$ 101,549,000	\$ 96,002,000	\$ 87,993,000	\$ 79,069,000
Average Monthly Payment	\$ 2,839	\$ 2,723	\$ 2,639	\$ 2,479	\$ 2,324
Disability Retirement					
Number	370	365	369	361	351
Annual Allowance					
Basic Only	\$ 9,414,000	\$ 8,988,000	\$ 8,722,000	\$ 8,214,000	\$ 7,571,000
COLA	\$ 3,005,000	\$ 2,926,000	\$ 3,070,000	\$ 2,847,000	\$ 2,569,000
Total	\$ 12,419,000	\$ 11,914,000	\$ 11,792,000	\$ 11,061,000	\$ 10,140,000
Average Monthly Payment	\$ 2,797	\$ 2,720	\$ 2,663	\$ 2,553	\$ 2,407
Beneficiaries					
Number	535	529	534	523	508
Annual Allowance					
Basic Only	\$ 6,672,000	\$ 6,309,000	\$ 6,052,000	\$ 5,757,000	\$ 5,220,000
COLA	\$ 5,118,000	\$ 5,116,000	\$ 5,206,000	\$ 4,805,000	\$ 4,361,000
Total	\$ 11,790,000	\$ 11,425,000	\$ 11,258,000	\$ 10,562,000	\$ 9,581,000
Average Monthly Payment	\$ 1,836	\$ 1,800	\$ 1,757	\$ 1,683	\$ 1,572
Total Retired Members					
Number	4,147	4,002	3,935	3,842	3,694
Annual Allowance					
Basic Only	\$ 103,340,000	\$ 94,304,000	\$ 87,812,000	\$ 80,675,000	\$ 72,478,000
COLA	\$ 31,335,000	\$ 30,584,000	\$ 31,240,000	\$ 28,941,000	\$ 26,312,000
Total	\$ 134,675,000	\$ 124,888,000	\$ 119,052,000	\$ 109,616,000	\$ 98,790,000
Average Monthly Payment	\$ 2,706	\$ 2,601	\$ 2,521	\$ 2,378	\$ 2,229
Inactive Members	1,190	1,207	1,230	1,225	1,151

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



## Exhibit 24a: Summary of Assumptions

## Assumptions & Methods for Most Recent Actuarial Valuation

June 30, 2011
Entry Age
Level Percent of Payroll
Original unfunded amount (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, 2011). This is referred to as 15-year layered amortization.
5-year smoothed market with 20% corridor
7.75%
3.50%
4.00%
5.20% 4.00% 1.20% (actual rates vary by service) Shown on following page Shown in Appendix A



## Exhibit 24b: Summary of Assumptions

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

Years of	Other Tern	ninations		Disa	oility	Death wh	ile Active	Service
Service	Ordinary	Vested	Age	Ordinary	Service	Ordinary	Service	Retirement
General Plan	1, 2 & 4 Male M	embers						
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
General Plan	1, 2 & 4 Female	Members						
0	0.1200	0.0000	20	0.0002	0.0003	0.0002	0.0000	0.0000
5	0.0285	0.0348	30	0.0002	0.0004	0.0002	0.0000	0.0000
10	0.0153	0.0212	40	0.0004	0.0007	0.0006	0.0000	0.0000
15	0.0088	0.0172	50	0.0012	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
General Plan	3 Male Members							
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
General Plan	3 Female Memb							
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
	bation Male Me							
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
0.6.6			70	0.0000	0.0000	0.0000	0.0000	1.0000
	bation Female			0.0000	0.0045	0.0000	0.0040	0.0000
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 20 8 Abour	0.0016	0.0094	50	0.0000	0.0044	0.0017	0.0010	0.1500
20 & Above	0.0000	0.0000	60 70	0.0000	0.0000 0.0000	0.0039	0.0010	1.0000 1.0000
			10	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 assumptions were reviewed and changed as a result of the 2011 Investigation of Experience Study.

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:

- 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 <i>SamCERA</i> 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 <i>SamCERA</i> 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 7.75% compounded annually, net of both investment and administrative expenses. This rate was adopted June 30, 2005.

Postretirement Benefit Increases	Postretirement increases are described in Appendix B. Assumed increases for valuation purposes are:				
		General	Safety	Probation	
	Plan 1	3.50%	3.50%	3.00%	
	Plan 2	2.75%	2.75%	2.75%	
	Plan 3	0.00%	N/A	N/A	
	Plan 4	2.00%	2.00%	2.00%	
	Assumed Plan 1 General and Safety COLAs are set at the inflation (CPI) assumption of 3.5% 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.			e Plan 2 does ses will be	
Interest on Member Contributions	The annual credited interest rate on member contributions is assumed to be 7.75% compounded semi-annually for an annualized rate of 7.90%. This rate was adopted June 30, 2005.				
<b>Future Salaries</b> The rates of annual salary increase assumed f the valuation are illustrated in Table A-5. In acc in salary due to promotions and longevity, this assumed 4.00% per annum rate of increase in level of the membership.			Table A-5. In addit d longevity, this sc	tion to increases ale includes an	
	Increases are assumed to occur mid-year. The mid-year timing reflects that salary increases occur throughout the year, or on average mid-year.				
	1) pensionab and 2) pensional	ble pay from the m onable pay from th y (by multiplying b	of compensation c ost recent bi-week ne prior year. We a y 26) and then use	ly pay period; annualized by	
Social Security Wage Base	Security Ben project the S Social Secur Base will incl provisions de	efit. For valuation ocial Security Ben ity provisions will o rease at the rate o	nefits offset by an a funding purposes efit. We assume t continue and the a f 3.5% per year. N npute a member's nent.	, we need to he current nnual Wage lote, statutory	



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:			
		8 years of service (General, except Plan 3) 33 years of service (Safety & Probation)		
	Deferred vested members are assumed to retire at the later of current age and:			
	<ul> <li>Age 55 (General Members, except Plan 3)</li> <li>Age 65 (General Plan 3 Members)</li> <li>Age 50 (Probation and Safety members)</li> </ul>			
	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 rate	es were adopted June 30, 2011.		
Mortality – Other Than Disabled Members	valuation for activ beneficiaries. Th Beneficiary morta members. Benef	tirement mortality rates are used in the re members, members retired for service, and ese rates are illustrated in Table A-2. Ility is assumed to be the same as for healthy iciaries are assumed to be of the opposite sex, ne mortality as General members.		
	General Males	RP-2000 Healthy Annuitant 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, 20			



Mortality – Disabled Members	For disabled members, the mortality rates used in the valuation rates are illustrated in Table A-3.			
	General Males	Average of RP-2000 Healthy Combined 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 morta	ality were adopted June 30, 2011.		
Other Employment Terminations	<ul> <li>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.</li> <li>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 <i>SamCERA</i>. 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 <i>SamCERA</i> or a reciprocal retirement system. All terminating members who are not eligible for vested benefits are assumed to withdraw their contributions immediately.</li> </ul>			
	The rates of termi	ination were adopted June 30, 2011.		
<b>Probability of Refund</b> Table A-4 gives the assumed probabilities that vested m will withdraw their contributions and elect a refund imme upon termination and the probability the remaining mem elect a deferred vested benefit. For Plan 3, 100% of me are assumed to elect a vested benefit. All non-vested r are assumed to elect a refund and withdraw their contrib The probability of refund assumptions were adopted Jur				
	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 <i>SamCERA</i> 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 <i>SamCERA</i> . For current deferred vested members, eligibility is based on the data supplied by <i>SamCERA</i> and future salaries are assumed to increase at 4.5% 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.	
	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 7.75%.	



Member Contribution Rate Assumptions (continued) 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 7.75% semiannually (7.90% annual rate).
- E. Member Rates are assumed to increase with entry age. 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 the California Nurses Association 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 2011 information and were applied as follows:

Plan 1 CNA members: 22.74% load Plan 2 CNA members: 17.00% load Plan 4 CNA members: 11.58% load

For purposes of determining cost-sharing, 85% of Safety members (excluding Probation members) were assumed to be deputy sheriffs.



#### Table A-1: Summary of Valuation Assumptions as of June 30, 2011

I.	А. В. С.	onomic assumptions General wage increases Investment earnings Growth in active members CPI inflation assumption	ship	4.00% 7.75% 0.00% 3.50%
II.	А. В. С.	mographic assumptions Salary increases due to s Retirement Disablement Mortality for active membe		Table A-5 Tables A-6 to A-11 Tables A-6 to A-11 Tables A-6 to A-11
		Basis RP-2000 Employe	ees Table with age adjustments:	
		Class of Members	Age <u>Adjustment</u>	
		General – Males General – Females	-3 years -3 years	
		Safety – Males Safety – Females	-3 years -3 years	
	E.	Mortality for active memb service retired members*	ers after termination and	Table A-2
		Basis – RP-2000 Healthy adjustment for White Coll	Combined Mortality Table with ar workers:	
		Class of Members	Age <u>Adjustment</u>	
		General – Males General – Females	-3 years -3 years	

Safety - Males-3 yearsSafety - Females-3 years



# Table A-1:Summary of Valuation Assumptions as of June 30, 2010<br/>(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 Adjustment	<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:

<u>Class of Members</u>	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.				
Η.	Other terminations of employment	Tables A-6 to A-11			
I.	Refund of contributions on vested termination	Table A-4			
	* 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%



This work product was prepared solely for *SamCERA*. It may not be appropriate to use for other purposes. A-11 Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

## Table A-3: Mortality for Members Retired for Disability

	General	General	Safety	Safety
Age	Male	Female	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<br/>(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%



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Years of	Due to Promotion	Total
Service	and Longevity	Annual Increase*
<1	6.00%	10.24%
1	4.00%	8.16%
2	3.00%	7.12%
3	2.50%	6.60%
4	2.00%	6.08%
5	1.75%	5.82%
6	1.50%	5.56%
7	1.25%	5.30%
8	1.05%	5.09%
9	0.90%	4.94%
10	0.80%	4.83%
11	0.70%	4.73%
12	0.60%	4.62%
13	0.50%	4.52%
14	0.50%	4.52%
15	0.50%	4.52%
16	0.50%	4.52%
17	0.50%	4.52%
18	0.50%	4.52%
19	0.50%	4.52%
20 or More	0.50%	4.52%

## Table A-5: Annual Increase in Salary

\* The total expected increase in salary is the increase due to promotions and longevity, adjusted for an assumed 4.00% 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 Males
	A-7:	General Plan 1, 2 & 4 Females
	A-8:	General Plan 3 Males
	A-9:	General Plan 3 Females

A-10:	Safety Plans 1, 2 & 4 Males
A 11.	Safaty Diana 1 2 9 1 Famala

A-11: Safety Plans 1, 2 & 4 Females



## Table A-6:Rate of Separation From Active Service<br/>General Plans 1, 2 & 4 – Male

18       0.0000       0.0004       0.0002       N/A       0.0003       1       0.1100         20       0.0000       0.0004       0.0002       N/A       0.0003       2       0.0900         21       0.0000       0.0004       0.0002       N/A       0.0003       3       0.0900         22       0.0000       0.0004       0.0002       N/A       0.0003       4       0.0700         23       0.0000       0.0004       0.0002       N/A       0.0004       6       0.0557         24       0.0000       0.0004       0.0002       N/A       0.0004       8       0.0470         25       0.0000       0.0004       0.0002       N/A       0.0004       8       0.0470         26       0.0000       0.0004       0.0002       N/A       0.0004       10       0.0410         28       0.0000       0.0004       0.0003       N/A       0.0004       11       0.0330         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       0.0370 <t< th=""><th>Age</th><th>Service Retirement*</th><th>Service Disability</th><th>Ordinary Disability</th><th>Service Death</th><th>Ordinary Death</th><th>Years of Service</th><th>Other Terminations</th></t<>	Age	Service Retirement*	Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations
19         0.0000         0.0004         0.0002         N/A         0.0003         1         0.1100           20         0.0000         0.0004         0.0002         N/A         0.0003         3         0.0800           21         0.0000         0.0004         0.0002         N/A         0.0003         4         0.0700           23         0.0000         0.0004         0.0002         N/A         0.0004         6         0.0567           25         0.0000         0.0004         0.0002         N/A         0.0004         8         0.0470           26         0.0000         0.0004         0.0002         N/A         0.0004         9         0.0440           27         0.0000         0.0004         0.0002         N/A         0.0004         10         0.0440           29         0.0000         0.0005         0.0003         N/A         0.0004         12         0.0330           30         0.0000         0.0005         0.0003         N/A         0.0004         13         0.0330           31         0.0000         0.0005         0.0003         N/A         0.0004         14         0.0330           32         0.0000 <td>18</td> <td>0.0000</td> <td>0.0004</td> <td>0.0002</td> <td>N/A</td> <td>0.0003</td> <td>0</td> <td>0.1300</td>	18	0.0000	0.0004	0.0002	N/A	0.0003	0	0.1300
20         0.0000         0.0004         0.0002         N/A         0.0003         3         0.0800           21         0.0000         0.0004         0.0002         N/A         0.0003         5         0.0800           23         0.0000         0.0004         0.0002         N/A         0.0004         6         0.0533           24         0.0000         0.0004         0.0002         N/A         0.0004         6         0.0567           25         0.0000         0.0004         0.0002         N/A         0.0004         8         0.0470           26         0.0000         0.0004         0.0002         N/A         0.0004         10         0.0416           28         0.0000         0.0004         0.0003         N/A         0.0004         11         0.0350           31         0.0000         0.0004         0.0003         N/A         0.0004         11         0.0350           32         0.0000         0.0005         0.0003         N/A         0.0004         13         0.0350           33         0.0000         0.0005         0.0003         N/A         0.0004         14         0.0350           34         0.0000 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
21       0.0000       0.0004       0.0002       N/A       0.0003       4       0.0700         23       0.0000       0.0004       0.0002       N/A       0.0003       5       0.0633         24       0.0000       0.0004       0.0002       N/A       0.0004       6       0.06677         25       0.0000       0.0004       0.0002       N/A       0.0004       8       0.0470         26       0.0000       0.0004       0.0002       N/A       0.0004       9       0.0440         28       0.0000       0.0004       0.0002       N/A       0.0004       11       0.0380         30       0.0000       0.0004       0.0003       N/A       0.0004       13       0.0390         31       0.0000       0.0005       0.0003       N/A       0.0004       13       0.0390         32       0.0000       0.0005       0.0004       N/A       0.0005       16       0.0290         34       0.0000       0.0006       0.0004       N/A       0.0006       17       0.0250         35       0.0000       0.0006       N/A       0.0006       18       0.0230         34 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>								
22       0.0000       0.0004       0.0002       N/A       0.0003       5       0.0633         24       0.0000       0.0004       0.0002       N/A       0.0004       6       0.0567         25       0.0000       0.0004       0.0002       N/A       0.0004       8       0.0470         26       0.0000       0.0004       0.0002       N/A       0.0004       9       0.0440         27       0.0000       0.0004       0.0002       N/A       0.0004       10       0.0410         28       0.0000       0.0004       0.0003       N/A       0.0004       12       0.0350         30       0.0000       0.0005       0.0003       N/A       0.0004       13       0.0350         31       0.0000       0.0005       0.0003       N/A       0.0004       14       0.0310         333       0.0000       0.0006       0.0004       N/A       0.0006       17       0.0250         34       0.0000       0.0006       0.0004       N/A       0.0006       18       0.0230         35       0.0000       0.0007       0.0005       N/A       0.0006       18       0.0230								
23       0.0000       0.0004       0.0002       N/A       0.0003       5       0.0633         24       0.0000       0.0004       0.0002       N/A       0.0004       7       0.0567         25       0.0000       0.0004       0.0002       N/A       0.0004       8       0.0470         27       0.0000       0.0004       0.0002       N/A       0.0004       9       0.0440         28       0.0000       0.0004       0.0003       N/A       0.0004       11       0.0380         30       0.0000       0.0004       0.0003       N/A       0.0004       13       0.0330         31       0.0000       0.0005       0.0003       N/A       0.0004       14       0.0330         32       0.0000       0.0005       0.0004       N/A       0.0005       16       0.0270         34       0.0000       0.0006       0.0004       N/A       0.0006       17       0.0250         35       0.0000       0.0006       N/A       0.0006       18       0.0210         36       0.0000       0.0006       N/A       0.0006       22       0.0170         37       0.0000 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>								
24         0.0000         0.0004         0.0002         N/A         0.0004         7         0.0500           26         0.0000         0.0004         0.0002         N/A         0.0004         9         0.0440           27         0.0000         0.0004         0.0002         N/A         0.0004         10         0.0410           28         0.0000         0.0004         0.0003         N/A         0.0004         11         0.0350           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         15         0.0270           33         0.0000         0.0005         0.0004         N/A         0.0005         16         0.0270           34         0.0000         0.0005         0.0004         N/A         0.0005         17         0.0250           35         0.0000         0.0005         N/A         0.0006         17         0.0230           36         0.0000         0.0005         N/A         0.0008         20         0.0190           38         0.0000         0.0010         0.000			0.0004				5	
25         0.0000         0.0004         0.0002         N/A         0.0004         9         0.0470           27         0.0000         0.0004         0.0002         N/A         0.0004         9         0.0440           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         13         0.0330           32         0.0000         0.0005         0.0003         N/A         0.0004         14         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         0.0006         18         0.0270           35         0.0000         0.0006         N/A         0.0008         20         0.0190           36         0.0000         0.0010         0.0006         N/A         0.0008         21         0.0190           37         0.0000         0.001		0.0000	0.0004	0.0002		0.0004	6	0.0567
26         0.0000         0.0004         0.0002         N/A         0.0004         9         0.0440           28         0.0000         0.0004         0.0002         N/A         0.0004         10         0.0440           28         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         13         0.0330           32         0.0000         0.0005         0.0004         N/A         0.0004         15         0.0270           34         0.0000         0.0006         0.0004         N/A         0.0005         17         0.0230           35         0.0000         0.0005         N/A         0.0006         17         0.0230           36         0.0000         0.0006         N/A         0.0008         20         0.0190           38         0.0000         0.0010         0.0006         N/A         0.0008         21         0.0170           41         0.0000         0.0011         0.00		0.0000	0.0004	0.0002		0.0004		0.0500
27       0.0000       0.0004       0.0002       N/A       0.0004       9       0.0440         28       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       0.0380         31       0.0000       0.0005       0.0003       N/A       0.0004       13       0.0330         32       0.0000       0.0005       0.0004       N/A       0.0004       14       0.0310         33       0.0000       0.0006       0.0004       N/A       0.0004       15       0.0220         34       0.0000       0.0006       0.0004       N/A       0.0006       17       0.0220         36       0.0000       0.0007       0.0005       N/A       0.0008       20       0.0190         39       0.0000       0.0008       0.0006       N/A       0.0008       21       0.0170         41       0.0000       0.011       0.0007       N/A       0.0010       23       0.0140         43       0.0000       0.011       0.0006       N/A       0.0012       22       0.0150	26	0.0000	0.0004	0.0002		0.0004	8	0.0470
28       0.0000       0.0004       0.0003       N/A       0.0004       10       0.0410         29       0.0000       0.0004       0.0003       N/A       0.0004       11       0.0330         31       0.0000       0.0005       0.0003       N/A       0.0004       13       0.03310         32       0.0000       0.0005       0.0004       N/A       0.0004       14       0.03310         33       0.0000       0.0005       0.0004       N/A       0.0005       16       0.02290         34       0.0000       0.0006       0.0004       N/A       0.0006       16       0.0220         35       0.0000       0.0006       0.0004       N/A       0.0006       18       0.0230         37       0.0000       0.0008       0.0006       N/A       0.0008       20       0.1190         38       0.0000       0.0010       0.0077       N/A       0.0008       21       0.01170         40       0.0000       0.011       0.0006       N/A       0.0010       24       0.0130         41       0.0000       0.011       0.0008       N/A       0.011       25       0.0120		0.0000	0.0004	0.0002	N/A	0.0004		0.0440
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       13       0.0330         32       0.0000       0.0005       0.0004       N/A       0.0004       14       0.0310         33       0.0000       0.0006       0.0004       N/A       0.0004       15       0.0220         34       0.0000       0.0006       0.0004       N/A       0.0006       17       0.0220         35       0.0000       0.0007       0.0004       N/A       0.0006       18       0.0230         36       0.0000       0.0007       0.0005       N/A       0.0006       19       0.0210         38       0.0000       0.0008       0.0006       N/A       0.0008       20       0.0119         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       0.011       0.0007       N/A       0.011       25       0.0100		0.0000	0.0004	0.0002		0.0004	10	0.0410
30       0.0000       0.0004       0.0005       0.0003       N/A       0.0004       12       0.0330         31       0.0000       0.0005       0.0003       N/A       0.0004       14       0.0310         32       0.0000       0.0005       0.0004       N/A       0.0004       15       0.0220         33       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       0.0005       N/A       0.0006       18       0.0201         37       0.0000       0.0008       0.0005       N/A       0.0008       20       0.1190         38       0.0000       0.0010       0.0006       N/A       0.0008       22       0.1140         41       0.0000       0.011       0.0007       N/A       0.0011       24       0.130         42       0.0000       0.011       0.0008       N/A       0.0011       25       0.0120         43       0.0000       0.013       0.0009       N/A       0.0011       28       0.0100		0.0000	0.0004	0.0003		0.0004	11	0.0380
32       0.0000       0.0005       0.0004       N/A       0.0004       14       0.0310         33       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       0.0005       N/A       0.0006       18       0.0230         37       0.0000       0.0007       0.0005       N/A       0.0008       20       0.0190         38       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       0.0140         41       0.0000       0.0011       0.0007       N/A       0.0011       23       0.0140         42       0.0000       0.0011       0.0008       N/A       0.0011       24       0.013         43       0.0000       0.011       0.0008       N/A       0.0011       25       0.0120         44       0.0000       0.012       0.0008       N/A       0.0011       25       0.0100	30	0.0000	0.0004	0.0003		0.0004		0.0350
33       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       0.0005       N/A       0.0006       18       0.02210         37       0.0000       0.0007       0.0005       N/A       0.0008       20       0.0190         38       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       0.0011       0.0007       N/A       0.0010       23       0.0140         42       0.0000       0.0011       0.0007       N/A       0.0011       25       0.0120         44       0.0000       0.0012       0.0008       N/A       0.0011       26       0.0100         45       0.0000       0.0014       0.0009       N/A       0.0012       27       0.0100         46       0.0000       0.0014       0.0001       N/A       0.0013       28       0.0100      1	31	0.0000	0.0005	0.0003	N/A	0.0004	13	0.0330
33       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       0.0005       N/A       0.0006       18       0.02210         37       0.0000       0.0007       0.0005       N/A       0.0008       20       0.0190         38       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       0.0011       0.0007       N/A       0.0010       23       0.0140         42       0.0000       0.0011       0.0007       N/A       0.0011       25       0.0120         44       0.0000       0.0012       0.0008       N/A       0.0011       26       0.0100         45       0.0000       0.0014       0.0009       N/A       0.0012       27       0.0100         46       0.0000       0.0014       0.0001       N/A       0.0013       28       0.0100      1		0.0000	0.0005	0.0003		0.0004	14	0.0310
34       0.0000       0.0006       0.0004       N/A       0.0005       16       0.0270         35       0.0000       0.0007       0.0004       N/A       0.0006       17       0.0250         36       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       0.0009       22       0.0140         41       0.0000       0.0011       0.0007       N/A       0.0011       23       0.0140         42       0.0000       0.0011       0.0007       N/A       0.0011       25       0.0120         43       0.0000       0.0013       0.0009       N/A       0.0011       26       0.0110         44       0.0000       0.0014       0.0009       N/A       0.0011       28       0.0110         45       0.0000       0.0015       0.0010       N/A       0.0012       27       0.0100		0.0000	0.0005	0.0004		0.0004	15	0.0290
36       0.0000       0.0007       0.0004       N/A       0.0006       18       0.0230         37       0.0000       0.0005       N/A       0.0007       19       0.0210         38       0.0000       0.0008       0.0006       N/A       0.0008       20       0.019         39       0.0000       0.0010       0.0006       N/A       0.0009       22       0.0150         41       0.0000       0.0011       0.0007       N/A       0.0010       2.3       0.0140         42       0.0000       0.0011       0.0007       N/A       0.0011       25       0.0120         43       0.0000       0.0012       0.0008       N/A       0.0011       26       0.0110         44       0.0000       0.012       0.0008       N/A       0.0011       26       0.0110         44       0.0000       0.013       0.0099       N/A       0.0012       27       0.0100         45       0.0000       0.014       0.0009       N/A       0.0012       27       0.0100         46       0.0000       0.014       0.0010       N/A       0.0013       28       0.0100         47 <td< td=""><td>34</td><td>0.0000</td><td>0.0006</td><td>0.0004</td><td></td><td>0.0005</td><td>16</td><td>0.0270</td></td<>	34	0.0000	0.0006	0.0004		0.0005	16	0.0270
36       0.0000       0.0007       0.0004       N/A       0.0006       18       0.0230         37       0.0000       0.0005       N/A       0.0007       19       0.0210         38       0.0000       0.0008       0.0006       N/A       0.0008       20       0.019         39       0.0000       0.0010       0.0006       N/A       0.0009       22       0.0150         41       0.0000       0.0011       0.0007       N/A       0.0010       2.3       0.0140         42       0.0000       0.0011       0.0007       N/A       0.0011       25       0.0120         43       0.0000       0.0012       0.0008       N/A       0.0011       26       0.0110         44       0.0000       0.012       0.0008       N/A       0.0011       26       0.0110         44       0.0000       0.013       0.0099       N/A       0.0012       27       0.0100         45       0.0000       0.014       0.0009       N/A       0.0012       27       0.0100         46       0.0000       0.014       0.0010       N/A       0.0013       28       0.0100         47 <td< td=""><td>35</td><td>0.0000</td><td>0.0006</td><td>0.0004</td><td>N/A</td><td>0.0006</td><td>17</td><td>0.0250</td></td<>	35	0.0000	0.0006	0.0004	N/A	0.0006	17	0.0250
37       0.0000       0.0007       0.0005       N/A       0.0007       19       0.0210         38       0.0000       0.0008       0.0006       N/A       0.0008       20       0.0190         39       0.0000       0.0006       N/A       0.0009       22       0.0170         40       0.0000       0.0010       0.0006       N/A       0.0009       23       0.0140         41       0.0000       0.0011       0.0007       N/A       0.0010       24       0.0130         42       0.0000       0.0011       0.0008       N/A       0.0011       26       0.0120         43       0.0000       0.0013       0.0008       N/A       0.0011       26       0.0100         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       0.0015       0.0010       N/A       0.0014       29       0.0100         47       0.0000       0.0016       0.0011       N/A       0.0017       0.0016       0.0017         50		0.0000	0.0007	0.0004		0.0006	18	0.0230
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       0.0011       0.0007       N/A       0.0010       23       0.0140         42       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       0.0013       28       0.0100         46       0.0000       0.0014       0.0009       N/A       0.0014       29       0.0100         47       0.0000       0.0016       0.0010       N/A       0.0014       29       0.0100         48       0.0000       0.0016       0.0010       N/A       0.0017       30 & Above       0.0000         49       0.0000       0.0016       0.0011       N/A       0.0017       53       0.0500       0.0016       0.0017         51       0.450       0.0017       0.0011       N/A       0.0023 <td< td=""><td></td><td>0.0000</td><td>0.0007</td><td>0.0005</td><td></td><td>0.0007</td><td>19</td><td>0.0210</td></td<>		0.0000	0.0007	0.0005		0.0007	19	0.0210
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       0.0011       0.0007       N/A       0.0010       23       0.0140         42       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       0.0013       28       0.0100         46       0.0000       0.0014       0.0009       N/A       0.0014       29       0.0100         47       0.0000       0.0016       0.0010       N/A       0.0014       29       0.0100         48       0.0000       0.0016       0.0010       N/A       0.0017       30 & Above       0.0000         49       0.0000       0.0016       0.0011       N/A       0.0017       53       0.0500       0.0016       0.0017         51       0.450       0.0017       0.0011       N/A       0.0023 <td< td=""><td>38</td><td>0.0000</td><td>0.0008</td><td>0.0005</td><td></td><td>0.0008</td><td>20</td><td>0.0190</td></td<>	38	0.0000	0.0008	0.0005		0.0008	20	0.0190
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       0.0012       27       0.0100         45       0.0000       0.0014       0.0009       N/A       0.0013       28       0.0100         46       0.0000       0.0014       0.0010       N/A       0.0014       29       0.0100         47       0.0000       0.0016       0.0010       N/A       0.0013       30 & Above       0.0000         49       0.0000       0.0016       0.0010       N/A       0.0017       50       0.0500       0.0016       0.0017         51       0.450       0.0017       0.0011       N/A       0.0021       1	39	0.0000	0.0008	0.0006		0.0008	21	0.0170
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       0.0012       27       0.0100         45       0.0000       0.0014       0.0009       N/A       0.0013       28       0.0100         46       0.0000       0.0014       0.0010       N/A       0.0014       29       0.0100         47       0.0000       0.0016       0.0010       N/A       0.0013       30 & Above       0.0000         49       0.0000       0.0016       0.0010       N/A       0.0017       50       0.0500       0.0016       0.0017         51       0.450       0.0017       0.0011       N/A       0.0021       1	40	0.0000	0.0010	0.0006	N/A	0.0009	22	0.0150
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       0.0013       28       0.0100         46       0.0000       0.0014       0.0009       N/A       0.0014       29       0.0100         47       0.0000       0.0015       0.0010       N/A       0.0014       29       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       0.0017       0.0017       0.0017       0.0017       0.0017       0.0011       N/A       0.0021       1		0.0000	0.0010	0.0007		0.0010	23	0.0140
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       0.0013       28       0.0100         46       0.0000       0.0014       0.0009       N/A       0.0014       29       0.0100         47       0.0000       0.0015       0.0010       N/A       0.0014       29       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       0.0017       0.0017       0.0017       0.0017       0.0017       0.0011       N/A       0.0021       1	42	0.0000	0.0011	0.0007	N/A	0.0010	24	0.0130
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       0.0014       29       0.0100         47       0.0000       0.0015       0.0010       N/A       0.0015       30 & Above       0.0000         48       0.0000       0.0016       0.0010       N/A       0.0016       0.0010       N/A       0.0016         50       0.0500       0.0016       0.0010       N/A       0.0017       0.0000       0.0016       0.0016       0.0017       0.0017       0.0016       0.0016       0.0019       0.0017       0.0019       0.0020       1		0.0000	0.0011	0.0008	N/A	0.0011	25	0.0120
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       0.0014       29       0.0100         48       0.0000       0.0015       0.0010       N/A       0.0016       30 & Above       0.0000         49       0.0000       0.0016       0.0010       N/A       0.0017       53       0.8 Above       0.0000         52       0.0450       0.0016       0.0011       N/A       0.0020		0.0000	0.0012	0.0008	N/A	0.0011	26	0.0110
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       50       0.0500       0.0016       0.0011       N/A       0.0017         51       0.0450       0.0017       0.0011       N/A       0.0020       1 <td>45</td> <td>0.0000</td> <td>0.0013</td> <td>0.0009</td> <td>N/A</td> <td>0.0012</td> <td></td> <td>0.0100</td>	45	0.0000	0.0013	0.0009	N/A	0.0012		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       51       0.0450       0.0016       0.0011       N/A       0.0012         52       0.0450       0.0017       0.0011       N/A       0.0021       53       0.0500       0.0018       0.0012       N/A       0.0023         54       0.0500       0.0019       0.0012       N/A       0.0026       1	46	0.0000	0.0014	0.0009		0.0013	28	0.0100
49       0.0000       0.0016       0.0010       N/A       0.0016         50       0.0500       0.0016       0.0011       N/A       0.0017         51       0.0450       0.0017       0.0011       N/A       0.0020         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       0.0024         55       0.0600       0.0019       0.0012       N/A       0.0026         57       0.0800       0.0019       0.0014       N/A       0.0028         58       0.1200       0.0021       0.0014       N/A       0.0033         60       0.1500       0.0022       0.0015       N/A       0.0040         61       0.2000       0.0024       0.0016       N/A       0.0044         63       0.2500       0.0022       0.0015       N/A       0.0036         61       0.2000       0.0024       0.0016       N/A       0.0044         63       0.2500       0.0025       0.0017       N/A       0.0044 <td< td=""><td>47</td><td>0.0000</td><td></td><td>0.0010</td><td></td><td>0.0014</td><td></td><td>0.0100</td></td<>	47	0.0000		0.0010		0.0014		0.0100
50       0.0500       0.0016       0.0011       N/A       0.0017         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       0.0024         56       0.0600       0.0019       0.0012       N/A       0.0028         57       0.0800       0.0019       0.0012       N/A       0.0038         58       0.1200       0.0020       0.0014       N/A       0.0033         60       0.1500       0.0021       0.0014       N/A       0.0033         61       0.2000       0.0022       0.0015       N/A       0.0040         62       0.3250       0.0016       N/A       0.0040         62       0.3250       0.0024       0.0018       N/A       0.0044         63       0.2500       0.0022       0.0015       N/A       0.0040         64       0.2500       0.0025       0.0017       N/A       0.0049         64       0.2	48	0.0000	0.0015	0.0010	N/A	0.0015	30 & Above	0.0000
51       0.0450       0.0016       0.0011       N/A       0.0020         52       0.0450       0.0017       0.0012       N/A       0.0021         53       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       0.0012       N/A       0.0038         58       0.1200       0.0020       0.0014       N/A       0.0038         59       0.1200       0.0021       0.0014       N/A       0.0033         60       0.1500       0.0022       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       0.0044         63       0.2500       0.0026       0.0018       N/A       0.0054         64       0.2500       0.0028       0.0018       N/A       0.0054         65       0.2500       0.0028       0.0018       N/A       0.0059 <td< td=""><td>49</td><td>0.0000</td><td>0.0016</td><td>0.0010</td><td></td><td>0.0016</td><td></td><td></td></td<>	49	0.0000	0.0016	0.0010		0.0016		
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       0.0021       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       0.0044         63       0.2500       0.0025       0.0017       N/A       0.0049         64       0.2500       0.0026       0.0018       N/A       0.0059         66       0.3500       0.0028       0.0018       N/A       0.0059         66       0.3500       0.0029       0.0019       N/A       0.0059         67       0.3500       0.0030       0.0020       N/A       0.0076 <td< td=""><td>50</td><td>0.0500</td><td>0.0016</td><td>0.0010</td><td></td><td>0.0017</td><td></td><td></td></td<>	50	0.0500	0.0016	0.0010		0.0017		
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       0.0019       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       0.0021       0.0014       N/A       0.0030         59       0.1200       0.0022       0.0014       N/A       0.0036         61       0.2000       0.0022       0.0015       N/A       0.0040         62       0.3250       0.0025       0.0017       N/A       0.0040         63       0.2500       0.0026       0.0018       N/A       0.0044         63       0.2500       0.0026       0.0018       N/A       0.0059         64       0.2500       0.0028       0.0018       N/A       0.0059         65       0.2500       0.0029       0.0019       N/A       0.0059         66       0.3500       0.0029       0.0019       N/A       0.0065 <td< td=""><td>51</td><td>0.0450</td><td>0.0016</td><td>0.0011</td><td></td><td>0.0019</td><td></td><td></td></td<>	51	0.0450	0.0016	0.0011		0.0019		
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       0.0022       0.0015       N/A       0.0036         61       0.2000       0.0023       0.0015       N/A       0.0044         63       0.2500       0.0025       0.0017       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		0.0450	0.0017	0.0011	N/A	0.0020		
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       0.0022       0.0015       N/A       0.0036         60       0.1500       0.0022       0.0015       N/A       0.0036         61       0.2000       0.0023       0.0015       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       0.0029       0.0019       N/A       0.0059         66       0.3500       0.0029       0.0019       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		0.0500	0.0017	0.0012		0.0021		
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       0.0054         64       0.2500       0.0026       0.0018       N/A       0.0059         66       0.3500       0.0029       0.0019       N/A       0.0059         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		0.0500	0.0018	0.0012		0.0023		
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       0.0025       0.0017       N/A       0.0049         63       0.2500       0.0026       0.0018       N/A       0.0054         65       0.2500       0.0028       0.0019       N/A       0.0059         66       0.3500       0.0029       0.0019       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	55	0.0600	0.0018	0.0012		0.0024		
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       0.0076         69       0.3000       0.0032       0.0022       N/A       0.0081	56	0.0600	0.0019	0.0012		0.0026		
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       0.0054         64       0.2500       0.0026       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		0.0800	0.0019	0.0013	N/A	0.0028		
600.15000.00220.0015N/A0.0036610.20000.00230.0015N/A0.0040620.32500.00240.0016N/A0.0044630.25000.00250.0017N/A0.0049640.25000.00260.0018N/A0.0054650.25000.00280.0018N/A0.0059660.35000.00290.0019N/A0.0065670.35000.00300.0020N/A0.0070680.30000.00310.0021N/A0.0076690.30000.00320.0022N/A0.0081	58	0.1200	0.0020	0.0014	N/A	0.0030		
610.20000.00230.0015N/A0.0040620.32500.00240.0016N/A0.0044630.25000.00250.0017N/A0.0049640.25000.00260.0018N/A0.0054650.25000.00280.0018N/A0.0059660.35000.00290.0019N/A0.0065670.35000.00300.0020N/A0.0070680.30000.00310.0021N/A0.0076690.30000.00320.0022N/A0.0081	59	0.1200	0.0021	0.0014	N/A	0.0033		
620.32500.00240.0016N/A0.0044630.25000.00250.0017N/A0.0049640.25000.00260.0018N/A0.0054650.25000.00280.0018N/A0.0059660.35000.00290.0019N/A0.0065670.35000.00300.0020N/A0.0070680.30000.00310.0021N/A0.0076690.30000.00320.0022N/A0.0081	60	0.1500	0.0022	0.0015	N/A	0.0036		
630.25000.00250.0017N/A0.0049640.25000.00260.0018N/A0.0054650.25000.00280.0018N/A0.0059660.35000.00290.0019N/A0.0065670.35000.00300.0020N/A0.0070680.30000.00310.0021N/A0.0076690.30000.00320.0022N/A0.0081	61	0.2000	0.0023	0.0015	N/A	0.0040		
640.25000.00260.0018N/A0.0054650.25000.00280.0018N/A0.0059660.35000.00290.0019N/A0.0065670.35000.00300.0020N/A0.0070680.30000.00310.0021N/A0.0076690.30000.00320.0022N/A0.0081	62	0.3250	0.0024	0.0016	N/A	0.0044		
650.25000.00280.0018N/A0.0059660.35000.00290.0019N/A0.0065670.35000.00300.0020N/A0.0070680.30000.00310.0021N/A0.0076690.30000.00320.0022N/A0.0081		0.2500		0.0017				
660.35000.00290.0019N/A0.0065670.35000.00300.0020N/A0.0070680.30000.00310.0021N/A0.0076690.30000.00320.0022N/A0.0081	64	0.2500	0.0026	0.0018	N/A	0.0054		
670.35000.00300.0020N/A0.0070680.30000.00310.0021N/A0.0076690.30000.00320.0022N/A0.0081		0.2500		0.0018				
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		
69 0.3000 0.0032 0.0022 N/A 0.0081	67	0.3500		0.0020		0.0070		
	68							
70 1.0000 0.0000 0.0000 N/A 0.0000				0.0022				
	70	1.0000	0.0000	0.0000	N/A	0.0000		

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



This work product was prepared solely for *SamCERA*. It may not be appropriate to use for other purposes. A-16 Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

## Table A-7:Rate of Separation From Active Service<br/>General Plans 1, 2 & 4 – 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	0.0000	0.0004	0.0003	N/A	0.0003	16	0.0255
35	0.0000	0.0005	0.0003	N/A	0.0003	17	0.0250
36	0.0000	0.0005	0.0003	N/A	0.0004	18	0.0230
37	0.0000	0.0005	0.0004	N/A	0.0004	19	0.0210
38	0.0000	0.0006	0.0004	N/A	0.0005	20	0.0190
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	0.0150
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	0.0036		
63	0.2500	0.0030	0.0020	N/A	0.0039		
64	0.2500	0.0030	0.0020	N/A	0.0043		
65	0.3000	0.0030	0.0020	N/A	0.0047		
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		

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



This work product was prepared solely for *SamCERA*. It may not be appropriate to use for other purposes. A-17 Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

## Table A-8:Rate of Separation From Active Service<br/>General Plan 3 – Male

	Service	Service	Ordinary	Service	Ordinary	Years of	Other
Age	Retirement	Disability	Disability	Death	Death	Service	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	0.1500	N/A	N/A	N/A	0.0044		
63	0.1000	N/A	N/A	N/A	0.0049		
64	0.1500	N/A	N/A	N/A	0.0054		
65	0.3000	N/A	N/A	N/A	0.0059		
66	0.3000	N/A	N/A	N/A	0.0065		
67	0.3000	N/A	N/A	N/A	0.0070		
68	0.3000	N/A	N/A	N/A	0.0076		
69	0.3000	N/A	N/A	N/A	0.0081		
70	1.0000	N/A	N/A	N/A	0.0000		



This work product was prepared solely for *SamCERA*. It may not be appropriate to use for other purposes. A-18 Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work.

## Table A-9:Rate of Separation From Active Service<br/>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	N/A N/A	0.0002	1	0.1000
20	0.0000	N/A	N/A	N/A	0.0002	2	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	0.0011	30 & Above	0.0100
49	0.0000	N/A	N/A	N/A	0.0012		
50	0.0000	N/A	N/A	N/A	0.0013		
51 52	0.0000 0.0000	N/A N/A	N/A N/A	N/A N/A	0.0014 0.0016		
52	0.0000	N/A N/A	N/A N/A	N/A N/A	0.0018		
53	0.0000	N/A	N/A N/A	N/A	0.0018		
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	0.0023		
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	0.0030		
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	0.0043		
65	0.3000	N/A	N/A	N/A	0.0047		
66	0.3000	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	0.0058		
69	0.3000	N/A	N/A	N/A	0.0062		
70	1.0000	N/A	N/A	N/A	0.0000		

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## Table A-10:Rate of Separation From Active Service<br/>Safety & Probation Plans – Male

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

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



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

Age	Service Retirement*	Service Disability	Ordinary Disability	Service Death	Ordinary Death	Years of Service	Other Terminations
18	0.0000	0.0015	0.0000	0.0010	0.0002	0	0.0700
19	0.0000	0.0015	0.0000	0.0010	0.0002	1	0.0650
20	0.0000	0.0015	0.0000	0.0010	0.0002	2	0.0450
21	0.0000	0.0015	0.0000	0.0010	0.0002	3	0.0300
22	0.0000	0.0015	0.0000	0.0010	0.0002	4	0.0250
23	0.0000	0.0015	0.0000	0.0010	0.0002	5	0.0233
24	0.0000	0.0015	0.0000	0.0010	0.0002	6	0.0217
25	0.0000	0.0015	0.0000	0.0010	0.0002	7	0.0200
26	0.0000	0.0015	0.0000	0.0010	0.0002	8	0.0185
27	0.0000	0.0015	0.0000	0.0010	0.0002	9	0.0170
28	0.0000	0.0016	0.0000	0.0010	0.0002	10	0.0155
29	0.0000	0.0017	0.0000	0.0010	0.0002	11	0.0140
30	0.0000	0.0018	0.0000	0.0010	0.0002	12	0.0125
31	0.0000	0.0019	0.0000	0.0010	0.0002	13	0.0120
32	0.0000	0.0020	0.0000	0.0010	0.0002	14	0.0115
33	0.0000	0.0021	0.0000	0.0010	0.0003	15	0.0110
34	0.0000	0.0022	0.0000	0.0010	0.0003	16	0.0105
35	0.0000	0.0023	0.0000	0.0010	0.0003	17	0.0100
36	0.0000	0.0024	0.0000	0.0010	0.0004	18	0.0080
37	0.0000	0.0025	0.0000	0.0010	0.0004	19	0.0060
38	0.0000	0.0026	0.0000	0.0010	0.0005	20 & Above	0.0000
39	0.0000	0.0027	0.0000	0.0010	0.0005		
40	0.0000	0.0028	0.0000	0.0010	0.0006		
41	0.0000	0.0029	0.0000	0.0010	0.0006		
42	0.0000	0.0030	0.0000	0.0010	0.0006		
43	0.0000	0.0031	0.0000	0.0010	0.0007		
44	0.0000	0.0032	0.0000	0.0010	0.0008		
45	0.0000	0.0033	0.0000	0.0010	0.0009		
46	0.0000	0.0034	0.0000	0.0010	0.0009		
47	0.0000	0.0035	0.0000	0.0010	0.0010		
48	0.0000	0.0038	0.0000	0.0010	0.0011		
49	0.0000	0.0041	0.0000	0.0010	0.0012		
50	0.1500	0.0044	0.0000	0.0010	0.0013		
51	0.1500	0.0047	0.0000	0.0010	0.0014		
52	0.1500	0.0050	0.0000	0.0010	0.0016		
53	0.2000	0.0064	0.0000	0.0010	0.0017		
54	0.1300	0.0078	0.0000	0.0010	0.0018		
55	0.3000	0.0092	0.0000	0.0010	0.0020		
56	0.2500	0.0106	0.0000	0.0010	0.0021		
57	0.2000	0.0120	0.0000	0.0010	0.0023		
58	0.2500	0.0108	0.0000	0.0010	0.0025		
59	0.2500	0.0096	0.0000	0.0010	0.0028		
60	1.0000	0.0000	0.0000	0.0000	0.0000		

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



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## 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 State Code. This summary does not attempt to cover all the detailed provisions of the law.

Government Code Section

## **MEMBERSHIP IN RETIREMENT PLANS**

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

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 July 6, 1980 and earlier.
- Plan 2: Employees hired after July 6, 1980, but on or before July 12, 1997.
- Plan 3:General members may elect to participate in Plan 3. After five<br/>years of service, Plan 3 members can elect membership under<br/>the open contributory plan. Members currently working in a<br/>contributory plan with Plan 3 service may purchase an upgrade of<br/>their Plan 3 service.(31496)
- Plan 4: Employees hired after July 12, 1997 (if Plan 3 not elected).



## **MEMBER CONTRIBUTIONS**

<u>Basic:</u> All Plans Except 3:	Contributions are based on the entry age and each member and are required of all member except Plan 3. See section 5 for details on th calculation. Current member rates are shown Appendix D.	rs in all plans iis	
	Contributions cease when general members with 30 years of service in a contributory plan they were members of <i>SamCERA</i> or a recipro on March 7, 1973, and continuously thereafter members are eligible for the 30-year cessation contributions. This provision does not apply to sharing contributions.	(31625.2, 31664.1)	
	Interest is credited to contributions semiannu- 30 and December 31 at an interest rate set b of Retirement on amounts that have been on at least six months.	y the Board	(31591, 31700)
Plan 3:	No member contributions are required under	Plan 3.	
<u>Cost-of-Living:</u> Plans 1, 2 & 4:	Members of the California Nurses Association 25% of the cost of the COLA, in addition to ot member rates and cost sharing.		
	No other Plan 1, 2 & 4 members contribute to cost-of-living benefit.	wards the	
<u>Cost-Sharing:</u> Plans 1, 2 & 4:	<b>General County members:</b> Members contribute basic rate plus 3.0%.		(31678.2)
	Safety members (except Deputy Sheriffs): Members contribute basic rate plus 5.0%.		
	Safety members (Deputy Sheriffs only): Members contribute basic rate plus varying c rates based on age and service:	ost-sharing	
	If age 45 or older If age is less than 45 • Service is less than 5 years: • Service between 5 & 15 years: • Service is more than 15 years	4.5% 3.0% 3.5% 4.5%	
	Probation members:		

Members contribute basic rate plus 3.5%.



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## Appendix B (continued)

## **MEMBER CONTRIBUTIONS** (Continued)

<u>Employer Pick-Up:</u> General members:	The County provides a variety of refundable service- based employer pick-up of contribution programs for members in several of its unions.	(31581.2)
	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.	
Safety members:	The County provides a variety of refundable service- based employer pick-up of contribution programs for members in several of its unions.	(31678.2)
	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.	(31639.85)
	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)



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## SERVICE RETIREMENT ALLOWANCE

<u>Eligibility:</u> Plans 1, 2 & 4*	<b>General members:</b> Age 50 with 10 years of service; Any age with 30 years of service; or Age 70 regardless of service.	(31672)
	All Safety & Probation members: Age 50 with 10 years of service; Any age with 20 years of service.	(31663.25)
	* For part-time employees, age 50 is replaced with age 55.	(31672.1)
Plan 3:	Age 65 with 10 years of service. A reduced benefit is also payable at age 55 with 10 years of service.	(31496)
Final Compensation: Plans 1 & 2:	Monthly average of a member's highest 12 consecutive months of compensation.	(31462.1)
Plans 3 & 4:	Monthly average of a member's highest compensation during any three years. Years do not have to be consecutive.	[31462, 31496.3(d)]
Compensation Limit: All Plans:	The amount of compensation that is taken into account in computing benefits payable to any person who first becomes a member on or after July 1, 1996, shall not exceed the dollar limitations in Section 401(a)(17) of Title 26 of the US Code.	(31671)
<u>Monthly Allowance</u> : Plans 1, 2 & 4:	<b>General members:</b> 1/60 x Final Compensation x General age factor x years of service.	(31676.14)
	All Safety & Probation members: 3% x Final Compensation x Safety age factor x years of service.	(31664.1)



SERVICE RETIREME	NT 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
	<ul><li>(b) 1 % x Final Compensation x Years of Service in excess of 35 (up to 10)</li></ul>
	(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 A	Average Compensation at Sample Ages:
Plan	Age 50 Age 55 Age 60 Age 65 & Up

<u>Plan</u>	<u>Age 50</u>	<u>Age 55</u>	<u>Age 60</u>	<u>Age 65 &amp; Up</u>	
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)
Safety & Probation	3.000%	3.000%	3.000%	3.000%	(31664.1)

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

\*\* Prior to reduction for PIA benefit. Actual percentage will be less.

<u>Maximum</u> <u>Allowance:</u> Plans 1, 2 & 4:	Allowance may not exceed 100% of final compensation.	
Plan 3:	The sum of the normal retirement allowance and the estimated PIA cannot exceed 70% of Final Compensation for a member with 35 or less years of service, and cannot exceed 80% of Final Compensation if service exceeds 35 years.	(31496)



SERVICE RETIREMENT ALLOWANCE (Continued)			
Unmodified Retiremer	nt Allowance (Normal Form):		
Plans 1, 2 & 4:	Life Annuity payable to retired member with 60% continuance to an eligible survivor (or eligible children).	(31760.1)	
Plan 3:	Life Annuity payable to retired member with 50% continuance to an eligible survivor (or eligible children).	(31497.71)	
Eligible survivor include	es certain domestic partners.	(31780.2)	
retirement allowance ap	<b>Allowance:</b> have the actuarial equivalent of the service or disability oplied to a lesser retirement allowance during the retired o provide an optional survivor allowance.		
Option 1:	Member's allowance is reduced to pay a cash refund of any unpaid annuity payments (up to the amount of the member's contributions at retirement) to the member's estate or to a beneficiary having an insurable interest in the life of the member.	(31761)	
Option 2:	100% of member's reduced allowance is payable to an eligible survivor or beneficiary having an insurable interest in the life of the member.	(31762)	
Option 3:	50% of member's reduced allowance is payable to an eligible survivor or beneficiary having an insurable interest in the life of the member.	(31763)	
Option 4:	Other % of member's reduced allowance is payable to an eligible survivor or beneficiary(ies) having an insurable interest in the life of the member.	(31764)	
For Options 2, 3 or 4, the election and names and	(31782)		
All Allowances:	All allowances are made on a pro rata basis (based on the number of days in that month) if not in effect for the entire month of retirement. For deaths that occur mid-month, the full month's payment is made.	(31600)	



## SERVICE-CONNECTED DISABILITY RETIREMENT ALLOWANCE

<u>Eligibility:</u> Plans 1, 2 & 4:	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, 31720.5, 31720.6, 31720.7, 31720.9)
Plan 3:	Not available under Plan 3.	(31487)
Monthly Allowance:	Greater of (1) 50% of final compensation, and (2) the service retirement allowance, if eligible to retire.	(31727.4)
<u>Normal Form Of</u> Payment:	Life Annuity with 100% continuance to a surviving spouse (or eligible children).	(31760, 31786)

## RECIPROCAL SERVICE-CONNECTED DISABILITY ALLOWANCE

<u>Eligibility:</u> Plans 1, 2 & 4:	Any member regardless of age or years of service who leaves their accumulated contributions on deposit and receives a disability retirement allowance from CaIPERS or another '37 Act system. The member must be eligible for a reciprocal benefit and the disability must be service- connected.	(31837)
Plan 3:	Not available under Plan 3.	
Monthly Allowance:	Same as nonservice-connected disability, but in no case shall the allowance be greater than if all service was with one entity.	(31837, 31838.5)
<u>Normal Form of</u> <u>Payment:</u>	Life Annuity with 100% continuance to a surviving spouse (or eligible children).	(31760, 31786)



## NONSERVICE-CONNECTED DISABILITY RETIREMENT ALLOWANCE

<u>Eligibility:</u> Plans 1, 2 & 4:	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 allowance equals (a) or (b) where:	(31726, 31726.5)
General Members:	(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 Compensation.	(31727(b))
Safety Members:	1/60 is replaced by 1/50 and age 65 is replaced by age 55 in (a) and (b) above.	(31727.2)
<u>Normal Form Of</u> <u>Payment:</u>	Life Annuity with 60% continuance to a surviving spouse (or eligible children).	(31760.1)

## SERVICE-CONNECTED DEATH BENEFITS

<u>Eligibility</u> Plans 1, 2 & 4:	Active members who die in service as a result of injury or disease arising out of and in the course of employment.	(31787)
Plan 3:	Not available under Plan 3.	(31487)
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.	(31787)



# Appendix B (continued)

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.									
<b>Death Benefit (Lump Sum):</b> 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).	(31781)								
Additional Allowance for Children: 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.	(31787.5)								
Additional Amount for Spouse of Safety Member: 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.	(31787.6)								
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

<u>Eligibility:</u> Plans 1, 2 & 4						
	duty.					
Plan 3:	Not available under Plan 3.					
<b>Death Benefit (Lump Sum):</b> 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 Benefin Iieu of the lump-sum to provide flexibility to s	n death benefit, several optional death benefits are available					
<b>First Optional Death Benefit:</b> 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: 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 An eligible survivor of a combined benefit equa	a member who dies after five years of service may elect a					
months x the numb	to 1/12 of the compensation earnable in the preceding 12 per of completed years of service (benefit not to exceed hths' compensation), plus	(31781.3)				
which the member retired for a nonser	t equal to 60% of the monthly retirement allowance to would have been entitled if the member retired or had been rvice-connected disability as of the date of death, reduced int which is the actuarial equivalent of (a) above based on ble survivor.	(31781.1)				



### NONSERVICE-CONNECTED DEATH BENEFITS (Continued)

#### Fourth Optional Death Benefit:

If a member dies while eligible for a service retirement and the eligible survivor is (31765.1) 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.

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.

**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**

<u>Eligibility:</u> Plans 1, 2 & 4:	Age 50 with 10 years of membership. 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.	(31700)
Plan 3:	Age 55 with 10 years of service.	(31496)
<u>Monthly Allowance:</u> Plans 1, 2 & 4:	Same as service retirement allowance; payable anytime after the member would have been eligible for service retirement.	(31703, 31704, 31705)
	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.	(31702)
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.	(31496)
	No benefit is paid for death while deferred.	



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

Cost-of-living increases (or decreases) are applied to all retirement allowances (service and disability), optional death allowances, and annual death allowances effective April 1, based on changes in the Consumer Price Index (CPI) from the previous January 1 to the current January 1, to the nearest ½ of 1%.						
Plan 1:	<b>General &amp; Safety</b> Members (and their beneficiaries) are limited to a maximum 5% cost-of-living increase.	(31870.2)				
	<b>Probation</b> Members (and their beneficiaries) are limited to a maximum 3% cost-of-living increase.	(31870.1)				
Plan 2:	<b>All members</b> Members (and their beneficiaries) are limited to a maximum 3% cost-of-living increase.	(31870.1)				
Plan 3:	Plan 3 does not have a COLA.	(31487)				
Plan 4:	<b>All members</b> Members (and their beneficiaries) are limited to a maximum 2% cost-of-living increase.	(31870)				
COLA Bank Plan 1:	When the CPI exceeds the applicable percentage (3% or 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.	(31870.1, 31870.2)				
Plans 2 & 4:	Plans 2 & 4 do not have a COLA bank.	(31874.4)				



## Appendix C: Valuation Data and Schedules



Data on *SamCERA* membership as of June 30, 2011 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, 2010 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.



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	Tot Num		Annu	al Salary	Average Age	Μ	verage onthly Salary	Average Credited Service	
Gene	ral Members								
Plan 1		63	\$	5,768,418	59.8	\$	7,630	32.3	
Plan 2	2 1,1	02	9	5,315,230	53.0		7,208	20.6	
Plan 3	3 1	51	1	0,814,486	44.4		5,968	8.6	
Plan 4	ا <u>3</u> ,1	78	24	3,978,581	43.7		6,398	6.7	

355,876,715

46.2 \$ 6,599

\$

6,719

40.6

10.5

11.2

#### Exhibit C-1: SamCERA Membership – Active Members as of June 30, 2011

4,494

\$

\$

305

Total

Total

Plan 1 Plan 2 Plan 4 Total	6 132 <u>308</u> 446	\$	869,223 17,090,191 34,114,527 52,073,940	60.7 49.7 41.6 44.2	\$	12,073 10,789 9,230 9,730	32.4 20.8 7.0 11.4		
Probation Members									
Plan 1	2	\$	180,793	62.0	\$	7,533	34.9		
Plan 2	75		6,613,847	46.8		7,349	19.0		
Plan 4	228		17,796,752	38.4		6,505	8.4		

Grand Total	5,245	\$ 432,542,046	45.7	\$ 6,872	10.6

24,591,392



## Exhibit C-2: SamCERA Membership – Deferred Vested Members as of June 30, 2011

	Number	Average Age
General Meml	bers	
Plan 1 Plan 2 Plan 3 Plan 4 Total	31 458 111 481 1,081	59.3 50.6 52.7 44.8 48.5
Safety Membe	ers	
Plan 1 Plan 2 Plan 4	1 32 31	60.0 46.3 43.9
Total	64	45.4
Probation Me	mbers	
Plan 1 Plan 2 Plan 4	- 20 25	44.2
Total	45	43.5
Grand Total	1,190	48.1



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	Number	Average Age	Monthly Allowance	erage Iy Benefit
-				2
General Memb	pers			
Plan 1	1,979	77.3	\$ 5,233,176	\$ 2,644
Plan 2	1,389	66.1	2,867,344	2,064
Plan 3	102	69.3	91,178	894
Plan 4	153	62.4	221,954	1,451
Total	3,623	72.2	\$ 8,413,653	\$ 2,322
Safety Membe	rs			
Plan 1	285	69.2	\$ 1,682,816	\$ 5,905
Plan 2	110	57.8	590,330	5,367
Plan 4	10	49.8	31,785	3,178
Total	405	65.6	\$ 2,304,931	\$ 5,691
Probation Mer	nbers			
Plan 1	71	67.5	\$ 339,673	\$ 4,784
Plan 2	42	59.8	149,288	3,554
Plan 4	6	64.8	15,333	2,556
Total	119	64.7	\$ 504,294	\$ 4,238
Grand Total	4,147	71.3	\$ 11,222,878	\$ 2,706

## Exhibit C-3a: SamCERA Membership – Retired Members as of June 30, 2011



Plan	Retirement Type	Number		Monthly Benefit	_	Average Monthly Benefit
General Plans:						
	Healthy	2,874	\$	7,058,197	\$	2,456
	Disabled	276		604,616		2,191
	Beneficiaries	473		750,840		1,587
	Total	3,623	\$	8,413,653	\$	2,322
Safety Plans:						
	Healthy	256	\$	1,668,775	\$	6,519
	Disabled	91		424,453		4,664
	Beneficiaries	58		211,703	_	3,650
	Total	405	\$	2,304,931	\$	5,691
Probation Plans:						
	Healthy	112	\$	478,438	\$	4,272
	Disabled	3		5,872		1,957
	Beneficiaries	4		19,985	_	4,996
	Total	119	\$	504,294	\$	4,238
Grand Totals						
	Healthy	3,242	\$	9,205,410	\$	2,839
	Disabled	370		1,034,941		2,797
	Beneficiaries	535	_	982,527	_	1,836
	Total	4,147	\$	11,222,878	\$	2,706

## Exhibit C-3b: SamCERA Membership – Retired Members as of June 30, 2011 Subtotaled by Class and Retirement Type



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#### Exhibit C-4: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2011 **All Members**

Count										
-				Ye	ears of Servic	e				Total
Age	0-1	1-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Count
Under 25	11	17	0	0	0	0	0	0	0	28
25-29	46	167	62	3	0	0	0	0	0	278
30-34	57	272	238	48	1	0	0	0	0	616
35-39	30	196	302	192	20	0	0	0	0	740
40-44	33	183	238	246	99	24	1	0	0	824
45-49	23	113	171	193	100	120	29	0	0	749
50-54	21	108	171	156	99	126	69	17	1	768
55-59	12	97	151	115	74	97	73	30	9	658
60-64	2	53	108	92	49	49	37	31	14	435
65 & Over	1	13	38	33	19	24	12	4	5	149
Total Count	236	1,219	1,479	1,078	461	440	221	82	29	5,245

Compensation										
				Ye	ars of Servic	e				Average
Age	0-1	1-2	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Comp.
Under 25	54,459	66,214	-	-	-	-	-	-	-	61,596
25-29	58,772	67,036	65,702	63,249	-	-	-	-	-	65,331
30-34	69,908	75,268	74,632	72,839	93,113	-	-	-	-	74,366
35-39	69,242	80,146	83,551	83,099	83,319	-	-	-	-	81,945
40-44	83,746	81,215	81,964	87,845	88,177	96,461	74,620	-	-	84,784
45-49	84,010	85,174	79,746	84,839	89,247	95,257	86,324	-	-	86,017
50-54	97,976	79,912	82,761	83,219	85,097	96,303	88,805	92,099	111,717	86,180
55-59	73,192	82,035	80,648	86,629	86,787	96,006	93,657	96,207	77,778	86,830
60-64	100,870	84,101	79,702	85,810	91,664	89,025	87,681	88,454	81,666	85,390
65 & Over	95,742	69,736	65,913	77,614	77,692	78,490	91,337	69,966	129,783	76,866
Avg. Annual Compensation	73,278	77,884	79,550	84,439	87,263	94,179	89,967	91,144	89,792	82,468



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#### Exhibit C-4a: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2011 **General Members**

Count										
				Ye	ears of Servio	e				Total
Age	0-1	1-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Count
Under 25	11	12	0	0	0	0	0	0	0	23
25-29	44	138	55	3	0	0	0	0	0	240
30-34	51	231	195	38	1	0	0	0	0	516
35-39	26	183	242	126	17	0	0	0	0	594
40-44	23	173	198	177	68	17	1	0	0	657
45-49	15	110	155	151	82	87	23	0	0	623
50-54	14	97	157	145	89	105	56	16	1	680
55-59	10	89	140	110	71	84	65	29	9	607
60-64	2	52	101	90	47	46	33	28	13	412
65 & Over	1	13	34	32	19	24	12	4	3	142
Total Count	197	1,098	1,277	872	394	363	190	77	26	4,494

Compensation										
	-			Ye	ars of Servic	e				Average
Age	0-1	1-2	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Comp.
Under 25	54,459	58,476	-	-	-	-	-	-	-	56,555
25-29	56,503	63,674	62,812	63,249	-	-	-	-	-	62,156
30-34	65,477	74,407	71,723	66,043	93,113	-	-	-	-	71,931
35-39	62,331	79,643	81,081	76,961	78,715	-	-	-	-	78,875
40-44	69,855	80,369	78,869	83,882	79,427	83,654	74,620	-	-	80,474
45-49	69,078	84,767	78,348	80,425	82,979	86,326	75,533	-	-	81,381
50-54	81,309	75,891	80,300	81,963	82,801	90,984	80,228	89,812	111,717	82,288
55-59	65,188	78,455	78,384	84,942	86,221	91,437	90,150	95,544	77,778	84,159
60-64	100,870	83,541	77,934	84,841	91,027	88,249	81,743	82,201	80,136	83,572
65 & Over	95,742	69,736	62,225	75,650	77,692	78,490	91,337	69,966	123,924	74,974
Avg. Annual Compensation	64,851	76,570	77,048	81,046	83,457	88,457	83,989	88,172	85,587	79,189



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#### Exhibit C-4b: Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2011 Safety Members

Count										
				Ye	ears of Servio	e				Total
Age	0-1	1-5	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Count
Under 25	0	4	0	0	0	0	0	0	0	1
25-29	2	14	5	0	0	0	0	0	0	21
30-34	6	18	16	7	0	0	0	0	0	47
35-39	4	8	28	28	2	0	0	0	0	70
40-44	10	7	22	33	16	5	0	0	0	93
45-49	8	3	7	25	13	19	4	0	0	79
50-54	7	11	9	6	8	19	9	1	0	70
55-59	2	8	8	4	1	10	5	1	0	39
60-64	0	1	6	1	2	2	3	2	0	17
65 & Over	0	0	3	1	0	0	0	0	2	6
Total Count	39	74	104	105	42	55	21	4	2	446

Compensation	]									
	-			Ye	ears of Servio	e				Average
Age	0-1	1-2	5-9	10-14	15-19	20-24	25-29	30-34	35&Over	Comp.
Under 25	-	89,096	-	-	-	-	-	-	-	89,096
25-29	108,683	99,040	96,676	-	-	-	-	-	-	99,396
30-34	107,567	98,572	105,261	105,213	-	-	-	-	-	102,987
35-39	114,168	95,357	113,349	111,064	123,209	-	-	-	-	110,707
40-44	115,694	108,414	114,249	114,601	128,369	141,932	-	-	-	118,008
45-49	112,009	100,128	110,482	113,294	128,418	136,077	146,443	-	-	122,062
50-54	131,310	115,370	129,201	108,390	109,491	126,292	137,181	128,690	-	123,431
55-59	113,210	121,867	121,082	129,389	113,276	136,789	135,613	115,434	-	127,237
60-64	-	113,210	109,038	141,358	106,637	108,515	155,817	139,850	-	122,721
65 & Over	-	-	105,517	140,454	-	-	-	-	138,571	122,358
Avg. Annual Compensation	115,847	104,008	112,793	113,430	123,149	132,356	141,234	130,956	138,571	116,758



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Exhibit C-4c:	Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2011
	Probation 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	0	1	0	0	0	0	0	0	0	1			
25-29	0	15	2	0	0	0	0	0	0	17			
30-34	0	23	27	3	0	0	0	0	0	53			
35-39	0	5	32	38	1	0	0	0	0	76			
40-44	0	3	18	36	15	2	0	0	0	74			
45-49	0	0	9	17	5	14	2	0	0	47			
50-54	0	0	5	5	2	2	4	0	0	18			
55-59	0	0	3	1	2	3	3	0	0	12			
60-64	0	0	1	1	0	1	1	1	1	6			
65 & Over	0	0	1	0	0	0	0	0	0	1			
Total Count	0	47	98	101	25	22	10	1	1	305			

Compensation												
Age	Years of Service           0-1         1-2         5-9         10-14         15-19         20-24         25-29         30-34         35&Over									Average Comp.		
	<u> </u>											
Under 25	-	67,543	-	-	-	-	-	-	-	67,543		
25-29	-	68,105	67,764	-	-	-	-	-	-	68,065		
30-34	-	65,679	77,491	83,386	-	-	-	-	-	72,699		
35-39	-	74,210	76,157	82,847	81,814	-	-	-	-	79,449		
40-44	-	66,506	76,547	82,800	84,974	91,638	-	-	-	81,298		
45-49	-	-	79,904	82,200	90,200	95,362	90,174	-	-	86,871		
50-54	-	-	76,437	89,451	89,661	90,676	100,031	-	-	88,347		
55-59	-	-	78,473	101,112	93,646	87,995	99,707	-	-	90,577		
60-64	-	-	82,182	117,471	-	85,758	79,239	160,763	101,553	104,494		
65 & Over	-	-	72,494	-	-	-	-	-	-	72,494		
Avg. Annual Compensation	-	67,454	76,878	83,588	86,961	93,156	95,883	160,763	101,553	80,628		



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		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	-	-	-	-	4	2	-	-	6	\$ 1,324		
35-39	-	-	-	1	-	2	5	-	8	1,474		
40-44	-	-	1	-	1	5	6	-	13	2,449		
45-49	-	-	1	2	8	7	15	2	35	2,654		
50-54	1	-	1	1	9	19	50	55	136	2,792		
55-59	-	-	2	8	12	64	180	75	341	3,006		
60-64	1	3	5	24	61	161	310	95	660	3,412		
65-69	2	5	15	47	146	212	331	65	823	3,418		
70-74	7	3	36	130	158	185	93	10	622	2,580		
75-79	15	35	62	108	151	66	23	3	463	2,206		
80-84	20	72	92	148	62	12	3	2	411	2,071		
85-89	66	94	141	50	9	3	2	-	365	1,848		
90-94	70	87	46	6	2	-	-	-	211	1,789		
95-99	34	14	1	-	-	-	-	-	49	1,290		
100 & Over	3	-	-	-	-	-	1	-	4	1,242		
Total Count	219	313	403	525	623	738	1,019	307	4,147			
Avg Monthly Benefit	\$ 1,678	\$ 1,556	\$ 1,981	\$ 2,079	\$ 2,243	\$ 2,904	\$ 3,743	\$ 3,660		\$ 2,706		

#### Exhibit C-5: Distribution of Retired Members by Age and Retirement Year as of June 30, 2011 All Plans Combined



Age	Pre-1979	1980-84	1985-89	<b>Retire</b> 1990-94	<b>ment Year</b> 1995-99	2000-04	2005-09	2010-14	Total Count	Average Monthly Benefit
Under 35	-	-	-	-	4	2	-	-	6	\$ 1,324
35-39	-	-	-	1	-	2	3	-	6	1,965
40-44	-	-	1	-	-	3	5	-	9	1,981
45-49	-	-	1	1	6	3	8	1	20	1,803
50-54	1	-	1	1	8	13	36	37	97	1,544
55-59	-	-	1	5	10	58	142	64	280	2,231
60-64	1	2	2	15	53	122	271	88	554	2,883
65-69	1	3	8	35	101	155	314	61	678	3,051
70-74	2	2	25	105	125	167	91	9	526	2,180
75-79	12	33	56	104	148	62	23	3	441	2,097
80-84	17	68	86	147	61	12	3	2	396	1,986
85-89	56	90	141	50	9	3	2	-	351	1,749
90-94	66	87	46	6	2	-	-	-	207	1,743
95-99	33	14	1	-	-	-	-	-	48	1,288
100 & Over	3	-	-	-	-	-	1	-	4	1,242
Total Count	192	299	369	470	527	602	899	265	3,623	
Avg Monthly Benefit	\$ 1,413	\$ 1,478	\$ 1,828	\$ 1,814	\$ 1,779	\$ 2,345	\$ 3,323	\$ 3,155		\$ 2,322

### Exhibit C-5a: Distribution of Retired Members by Age and Retirement Year as of June 30, 2011 General Plans Combined



Age	Pre-1979	1980-84	1985-89	<b>Retire</b> 1990-94	<b>ment Year</b> 1995-99	2000-04	2005-09	2010-14	Total Count	Average Monthly Benefit
Under 35	-	-	-	-	-	-	-	-	-	\$-
35-39	-	-	-	-	-	-	2	-	2	-
40-44	-	-	-	-	1	2	1	-	4	3,501
45-49	-	-	-	1	2	3	7	-	13	3,819
50-54	-	-	-	-	1	4	11	12	28	6,844
55-59	-	-	1	3	2	5	29	5	45	7,125
60-64	-	1	3	9	6	36	27	5	87	6,536
65-69	1	2	7	12	35	41	7	1	106	5,452
70-74	5	1	11	23	25	6	1	-	72	5,043
75-79	3	2	6	4	-	-	-	-	15	4,553
80-84	3	4	6	1	-	-	-	-	14	4,354
85-89	10	4	-	-	-	-	-	-	14	4,343
90-94	4	-	-	-	-	-	-	-	4	4,194
95-99	1	-	-	-	-	-	-	-	1	1,350
100 & Over	-	-	-	-	-	-	-	-	-	-
Total Count	27	14	34	53	72	97	85	23	405	
Avg Monthly Benefit	\$ 3,560	\$ 3,209	\$ 3,648	\$ 4,219	\$ 4,873	\$ 6,208	\$ 7,979	\$ 8,044		\$ 5,691

### Exhibit C-5b: Distribution of Retired Members by Age and Retirement Year as of June 30, 2011 Safety Plans Combined



				Retire	ment Year				Total	Average Monthly
Age	Pre-1979	1980-84	1985-89	1990-94	1995-99	2000-04	2005-09	2010-14	Count	Benefit
Under 35	-	-	-	-	-	-	-	-	-	\$-
35-39	-	-	-	-	-	-	-	-	-	-
40-44	-	-	-	-	-	-	-	-	-	-
45-49	-	-	-	-	-	1	-	1	2	3,590
50-54	-	-	-	-	-	2	3	6	11	3,482
55-59	-	-	-	-	-	1	9	6	16	4,983
60-64	-	-	-	-	2	3	12	2	19	4,540
65-69	-	-	-	-	10	16	10	3	39	4,267
70-74	-	-	-	2	8	12	1	1	24	3,944
75-79	-	-	-	-	3	4	-	-	7	3,997
80-84	-	-	-	-	1	-	-	-	1	3,817
85-89	-	-	-	-	-	-	-	-	-	-
90-94	-	-	-	-	-	-	-	-	-	-
95-99	-	-	-	-	-	-	-	-	-	-
100 & Over	-	-	-	-	-	-	-	-	-	-
Total Count	-	-	-	2	24	39	35	19	119	
Avg Monthly Benefit	\$-	\$-	\$-	\$ 7,587	\$ 4,531	\$ 3,312	\$ 4,241	\$ 5,409		\$ 4,238

### Exhibit C-5c: Distribution of Retired Members by Age and Retirement Year as of June 30, 2011 Probation Plans Combined



# Appendix D: Member Contribution Rates



This section illustrates the member basic contribution rates and the basic plus cost-sharing contribution rates by entry age.



#### Exhibit D-1: Basic Member Contribution Rates

	General (County)		General (SMCM&VCD)		Probation		Safety	
Entry Age *	Plans 1&2	Plan 4	Plans 1&2	Plan 4	Plans 1&2	Plan 4	Plans 1&2	Plan 4
16	5.14%	4.92%	5.14%	4.92%	5.58%	5.34%	6.98%	6.68%
17	5.23%	5.01%	5.23%	5.01%	5.69%	5.44%	7.11%	6.80%
18	5.33%	5.10%	5.33%	5.10%	5.79%	5.54%	7.24%	6.93%
19	5.43%	5.20%	5.43%	5.20%	5.90%	5.64%	7.37%	7.06%
20	5.53%	5.29%	5.53%	5.29%	6.00%	5.75%	7.50%	7.18%
21	5.63%	5.39%	5.63%	5.39%	6.11%	5.85%	7.64%	7.31%
22	5.74%	5.49%	5.74%	5.49%	6.22%	5.96%	7.78%	7.45%
23	5.84%	5.59%	5.84%	5.59%	6.34%	6.07%	7.92%	7.58%
24	5.95%	5.69%	5.95%	5.69%	6.45%	6.18%	8.06%	7.72%
25	6.06%	5.80%	6.06%	5.80%	6.57%	6.29%	8.21%	7.86%
26	6.17%	5.90%	6.17%	5.90%	6.69%	6.40%	8.36%	8.00%
27	6.28%	6.01%	6.28%	6.01%	6.81%	6.52%	8.51%	8.15%
28	6.39%	6.12%	6.39%	6.12%	6.93%	6.64%	8.67%	8.30%
29	6.51%	6.23%	6.51%	6.23%	7.06%	6.76%	8.82%	8.45%
30	6.63%	6.34%	6.63%	6.34%	7.19%	6.88%	8.98%	8.60%
31	6.75%	6.46%	6.75%	6.46%	7.32%	7.01%	9.15%	8.76%
32	6.87%	6.58%	6.87%	6.58%	7.45%	7.14%	9.32%	8.92%
33	6.99%	6.70%	6.99%	6.70%	7.59%	7.27%	9.49%	9.08%
34	7.12%	6.82%	7.12%	6.82%	7.73%	7.40%	9.67%	9.25%
35	7.25%	6.94%	7.25%	6.94%	7.88%	7.54%	9.85%	9.43%
36	7.38%	7.07%	7.38%	7.07%	8.03%	7.68%	10.04%	9.60%
37	7.52%	7.20%	7.52%	7.20%	8.18%	7.82%	10.23%	9.77%
38	7.66%	7.33%	7.66%	7.33%	8.33%	7.96%	10.42%	9.95%
39	7.80%	7.47%	7.80%	7.47%	8.48%	8.09%	10.60%	10.11%
40	7.95%	7.61%	7.95%	7.61%	8.63%	8.22%	10.79%	10.27%
41	8.10%	7.75%	8.10%	7.75%	8.78%	8.34%	10.97%	10.43%
42	8.26%	7.89%	8.26%	7.89%	8.91%	8.46%	11.14%	10.57%
43	8.41%	8.03%	8.41%	8.03%	9.04%	8.56%	11.31%	10.70%
44	8.56%	8.16%	8.56%	8.16%	9.16%	8.65%	11.45%	10.81%
45	8.71%	8.29%	8.71%	8.29%	9.27%	8.72%	11.59%	10.90%
46	8.85%	8.42%	8.85%	8.42%	9.37%	8.76%	11.71%	10.95%
47	8.99%	8.53%	8.99%	8.53%	9.43%	8.76%	11.79%	10.95%
48	9.12%	8.64%	9.12%	8.64%	9.46%	9.07%	11.83%	11.33%
49	9.25%	8.73%	9.25%	8.73%	9.46%	9.40%	11.83%	11.75%
50	9.36%	8.80%	9.36%	8.80%	9.46%	9.40%	11.83%	11.75%
51	9.45%	8.84%	9.45%	8.84%	9.46%	9.40%	11.83%	11.75%
52	9.52%	8.84%	9.52%	8.84%	9.46%	9.40%	11.83%	11.75%
53	9.55%	9.15%	9.55%	9.15%	9.46%	9.40%	11.83%	11.75%
54	9.55%	9.49%	9.55%	9.49%	9.46%	9.40%	11.83%	11.75%
55	9.55%	9.49%	9.55%	9.49%	9.46%	9.40%	11.83%	11.75%
56	9.55%	9.49%	9.55%	9.49%	9.46%	9.40%	11.83%	11.75%
57	9.55%	9.49%	9.55%	9.49%	9.46%	9.40%	11.83%	11.75%
58	9.55%	9.49%	9.55%	9.49%	9.46%	9.40%	11.83%	11.75%
59	9.55%	9.49%	9.55%	9.49%	9.46%	9.40%	11.83%	11.75%
60	9.55%	9.49%	9.55%	9.49%	9.46%	9.40%	11.83%	11.75%

\* For County General members entering after age 55, the rate equals the rate at age 55. Likewise for Safey and Probation members entering after age 50, the rate equals the rate at age 50. Only Probation rates reflect employer pick-up.



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#### Exhibit D-2: Basic Plus Cost-Sharing Member Contribution Rates

	General (	County)	General (SM	CM&VCD)***	Proba	tion	Safe	t <b>v</b> **
Entry Age *	Plans 1&2	Plan 4	Plans 1&2	Plan 4	Plans 1&2	Plan 4	Plans 1&2	Plan 4
16	8.14%	7.92%	5.14%	4.92%	9.08%	8.84%	11.98%	11.68%
17	8.23%	8.01%	5.23%	4.92 <i>%</i> 5.01%	9.19%	8.94%	12.11%	11.80%
18	8.33%	8.10%	5.33%	5.10%	9.29%	9.04%	12.24%	11.93%
19	8.43%	8.20%	5.43%	5.20%	9.40%	9.14%	12.37%	12.06%
20	8.53%	8.29%	5.53%	5.29%	9.50%	9.25%	12.50%	12.18%
20	8.63%	8.39%	5.63%	5.39%	9.61%	9.35%	12.64%	12.10%
22	8.74%	8.49%	5.74%	5.49%	9.72%	9.46%	12.78%	12.45%
23	8.84%	8.59%	5.84%	5.59%	9.84%	9.57%	12.92%	12.58%
23	8.95%	8.69%	5.95%	5.69%	9.95%	9.68%	13.06%	12.72%
25	9.06%	8.80%	6.06%	5.80%	10.07%	9.79%	13.21%	12.86%
26	9.17%	8.90%	6.17%	5.90%	10.19%	9.90%	13.36%	13.00%
27	9.28%	9.01%	6.28%	6.01%	10.31%	10.02%	13.51%	13.15%
28	9.39%	9.12%	6.39%	6.12%	10.43%	10.14%	13.67%	13.30%
29	9.51%	9.23%	6.51%	6.23%	10.56%	10.26%	13.82%	13.45%
30	9.63%	9.34%	6.63%	6.34%	10.69%	10.38%	13.98%	13.60%
31	9.75%	9.46%	6.75%	6.46%	10.82%	10.51%	14.15%	13.76%
32	9.87%	9.58%	6.87%	6.58%	10.95%	10.64%	14.32%	13.92%
33	9.99%	9.70%	6.99%	6.70%	11.09%	10.77%	14.49%	14.08%
34	10.12%	9.82%	7.12%	6.82%	11.23%	10.90%	14.67%	14.25%
35	10.25%	9.94%	7.25%	6.94%	11.38%	11.04%	14.85%	14.43%
36	10.38%	10.07%	7.38%	7.07%	11.53%	11.18%	15.04%	14.60%
37	10.52%	10.20%	7.52%	7.20%	11.68%	11.32%	15.23%	14.77%
38	10.66%	10.33%	7.66%	7.33%	11.83%	11.46%	15.42%	14.95%
39	10.80%	10.47%	7.80%	7.47%	11.98%	11.59%	15.60%	15.11%
40	10.95%	10.61%	7.95%	7.61%	12.13%	11.72%	15.79%	15.27%
41	11.10%	10.75%	8.10%	7.75%	12.28%	11.84%	15.97%	15.43%
42	11.26%	10.89%	8.26%	7.89%	12.41%	11.96%	16.14%	15.57%
43	11.41%	11.03%	8.41%	8.03%	12.54%	12.06%	16.31%	15.70%
44	11.56%	11.16%	8.56%	8.16%	12.66%	12.15%	16.45%	15.81%
45	11.71%	11.29%	8.71%	8.29%	12.77%	12.22%	16.59%	15.90%
46	11.85%	11.42%	8.85%	8.42%	12.87%	12.26%	16.71%	15.95%
47	11.99%	11.53%	8.99%	8.53%	12.93%	12.26%	16.79%	15.95%
48	12.12%	11.64%	9.12%	8.64%	12.96%	12.57%	16.83%	16.33%
49	12.25%	11.73%	9.25%	8.73%	12.96%	12.90%	16.83%	16.75%
50	12.36%	11.80%	9.36%	8.80%	12.96%	12.90%	16.83%	16.75%
51	12.45%	11.84%	9.45%	8.84%	12.96%	12.90%	16.83%	16.75%
52	12.52%	11.84%	9.52%	8.84%	12.96%	12.90%	16.83%	16.75%
53	12.55%	12.15%	9.55%	9.15%	12.96%	12.90%	16.83%	16.75%
54	12.55%	12.49%	9.55%	9.49%	12.96%	12.90%	16.83%	16.75%
55	12.55%	12.49%	9.55%	9.49%	12.96%	12.90%	16.83%	16.75%
56	12.55%	12.49%	9.55%	9.49%	12.96%	12.90%	16.83%	16.75%
57	12.55%	12.49%	9.55%	9.49%	12.96%	12.90%	16.83%	16.75%
58	12.55%	12.49%	9.55%	9.49%	12.96%	12.90%	16.83%	16.75%
59	12.55%	12.49%	9.55%	9.49%	12.96%	12.90%	16.83%	16.75%
60	12.55%	12.49%	9.55%	9.49%	12.96%	12.90%	16.83%	16.75%

\* For County General members entering after age 55, the rate equals the rate at age 55. Likewise for Safey and Probation members entering after age 50, the rate equals the rate at age 50. Only Probation rates reflect employer pick-up.

\*\* Cost sharing is less for deputy sheriffs

\*\*\*Mosquito and Vector Control District does not participate in cost sharing.



Californ	ia Nurses Asso	ociation
Plan 1	Plan 2	Plan 4
9.31%	9.01%	8.74%
		8.84%
9.54%	9.24%	8.95%
9.66%	9.35%	9.06%
9.79%	9.47%	9.17%
9.91%	9.59%	9.28%
10.05%	9.72%	9.40%
10.17%	9.83%	9.52%
10.30%	9.96%	9.64%
10.44%	10.09%	9.76%
10.57%	10.22%	9.88%
10.71%	10.35%	10.01%
10.84%	10.48%	10.13%
10.99%	10.62%	10.26%
11.14%	10.76%	10.40%
11.28%	10.90%	10.53%
11.43%	11.04%	10.67%
11.58%	11.18%	10.80%
11.74%	11.33%	10.94%
11.90%	11.48%	11.09%
12.06%	11.63%	11.23%
12.23%	11.80%	11.39%
12.40%	11.96%	11.55%
12.57%	12.13%	11.70%
12.76%	12.30%	11.87%
12.94%	12.48%	12.04%
13.14%	12.66%	12.22%
13.32%	12.84%	12.38%
13.51%	13.02%	12.55%
13.69%	13.19%	12.72%
13.86%	13.35%	12.87%
14.03%	13.52%	13.03%
14.19%	13.67%	13.18%
14.35%	13.82%	13.32%
14.49%	13.95%	13.44%
14.60%	14.06%	13.54%
14.68%	14.14%	13.62%
14.72%	14.17%	13.66%
14.72%	14.17%	13.66%
14.72%	14.17%	13.66%
	14.17%	13.66%
14.72%	14.17%	13.66%
14.72%	14.17%	13.66%
14.72%	14.17%	13.66%
14.72%	14.17%	13.66%
	Plan 1 9.31% 9.42% 9.54% 9.66% 9.79% 9.91% 10.05% 10.17% 10.30% 10.44% 10.57% 10.71% 10.84% 10.99% 11.14% 11.28% 11.43% 11.58% 11.74% 11.90% 12.06% 12.23% 12.40% 12.57% 12.76% 12.76% 12.57% 12.76% 12.57% 13.14% 13.32% 13.51% 13.69% 13.86% 14.03% 14.19% 14.49% 14.68% 14.72% 14.72% 14.72% 14.72% 14.72% 14.72%	9.31% $9.01%$ $9.42%$ $9.12%$ $9.54%$ $9.24%$ $9.66%$ $9.35%$ $9.79%$ $9.47%$ $9.91%$ $9.59%$ $10.05%$ $9.72%$ $10.17%$ $9.83%$ $10.30%$ $9.96%$ $10.44%$ $10.09%$ $10.57%$ $10.22%$ $10.71%$ $10.35%$ $10.44%$ $10.09%$ $10.57%$ $10.22%$ $11.71%$ $10.35%$ $10.84%$ $10.48%$ $10.99%$ $10.62%$ $11.14%$ $10.76%$ $11.28%$ $10.90%$ $11.43%$ $11.04%$ $11.58%$ $11.18%$ $11.74%$ $11.33%$ $11.90%$ $11.48%$ $12.06%$ $11.63%$ $12.23%$ $11.80%$ $12.40%$ $11.96%$ $12.57%$ $12.30%$ $12.40%$ $11.96%$ $12.57%$ $12.30%$ $12.94%$ $12.48%$ $13.14%$ $12.66%$ $13.32%$ $12.84%$ $13.51%$ $13.02%$ $13.69%$ $13.19%$ $13.69%$ $13.19%$ $13.69%$ $13.35%$ $14.03%$ $13.52%$ $14.19%$ $13.67%$ $14.49%$ $13.95%$ $14.60%$ $14.06%$ $14.60%$ $14.17%$ $14.72%$ $14.17%$ $14.72%$ $14.17%$ $14.72%$ $14.17%$ $14.72%$ $14.17%$ $14.72%$ $14.17%$ $14.72%$ $14.17%$

#### Exhibit D-3: Basic Plus Cost-Sharing Member Contribution Rates, with 25% COLA share\*\*

\* For County General members entering after age 55, the rate equals the rate at age 55.

\*\* Beginning with the 2011 valuation, current members of the California Nurses Association will contribute 25% of the cost of COLA, in addition to the current member rates and cost sharing for General members. To reflect this cost, the basic rates for current General members are multiplied by the following factors (prior to the addition of cost-sharing): 1.2274 for Plan 1 CNA members, 1.170 for Plan 2 CNA members, and 1.1158 for Plan 4 CNA members. These loads are based on 25% of the calculated cost of COLA.



Appendix E:	Glossary
hav- dictionary, s. Alexan dictionary, s. Alexan dictionary of section dictionary of sectionary of sectionary of section dictionary of sectionary of section dictionary of secti	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 <i>SamCERA</i> and include terms used exclusively by <i>SamCERA</i> . 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 Actuarial Cost Method Actuarial Cost Method Actuarial Cost 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 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.

- UnfundedThe excess, if any, of the Actuarial Accrued Liability over the ActuarialActuarial AccruedValue of Assets.LiabilityValue 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 All reserves excluding the Non-Valuation Reserves.

Reserves

Reserves





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October 18, 2011

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

Re: June 30, 2011 Actuarial Valuation Addendum -- New Plans

Dear Members of the Board:

We have performed an actuarial valuation for the San Mateo County Employees' Retirement Association (*SamCERA*) as of June 30, 2011. Our valuation report covers only members of the system as of that date. Subsequent to that date, new plan provisions are in effect for newly hired employees. The purpose of this addendum to the valuation is to recommend the employer and member contribution rates for the fiscal year beginning July 1, 2012 for members subject to the new plan provisions.

Additionally, it is our understanding the Board will elect to adopt employer contribution rates that are the same as the rates the employer is currently paying for Plans 1-4. We are also providing employer contribution rates under that alternative.

### Plan Design for New General Employees

The following is our understanding of the new plan that will be offered to General members hired on or after August 7, 2011, as communicated to us by the County. New employees may choose one of the following plan options:

- 1. Current General Plan 3 noncontributory plan (Section 31497.3 of the '37 Act)
- 2. Plan 5 (Pre-enhancement Formula) 1.725% at age 58 (Section 31676.1 of the '37 Act)

Employees who choose the pre-enhancement formula will have the option to transfer into the current Plan 4 - 2.0% at age 55.5 (Section 31676.14) – after earning 10 years of service. Employees choosing this option will be required to pay the total actuarial equivalent cost of the increase in benefits between the pre-enhancement formula and the current Plan 4 related to past service at the date of purchase.

Normal member contributions under the pre-enhancement formula are based on Section 31621 of the '37 Act  $- 1/120^{\text{th}}$  at age 60. Members who transfer to the current Plan 4 will then pay normal member contributions under Section 31621.9  $- 1/120^{\text{th}}$  at age 55 - the same as current Plan 4 members. In addition, transferring members will pay the 3% cost sharing contributions paid by current Plan 4 members.

This DRAFT 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.



All new employees under the pre-enhancement formula and those who transfer to the Plan 4 formula will pay 50% of the COLA cost under Section 31873 of the '37 Act.

The current Plan 3 is noncontributory.

### Plan Design for New Safety / Probation Employees

The following is our understanding of the new plan that will be offered to different Safety member groups hired on or after January 8, 2012, as communicated to us by the County. Several of these plan designs may require legislation to first be enacted. We have not explored any legal issues related to these plan design options.

	Plan 5	Plan 6
Bargaining Units	Choice (PDA, OSS & Mgmt.) Mandatory (DSA)	Choice (PDA, OSS & Mgmt.)
Effective Date	January 8, 2012	January 8, 2012
'37 Act Section	31664.2	31664
Benefit formula:	3% at age 55	2% at age 50
Member contribution formula:	1/100 <sup>th</sup> at age 50	1/100 <sup>th</sup> at age 50
COLA contributions:	member pays 50%	member pays 50%
Cost sharing contributions:	4.0% (OSS & Mgmt) 3.5% (PDA), Current (DSA)	0.00%

Additional Notes:

1) Employer picks up 20% of basic member contributions for PDA.

### **Results – Calculated Employer Contribution Rates Effective July 1, 2012**

Employer contribution rates are shown in the following table for each class of member and plan, as well as separately by bargaining unit where there is a difference. In addition to the members paying a portion of the COLA cost, members participating in some of the new plans may pay some cost sharing.



Class / Plan	Employer Normal Cost Rate	UAAL Rate	Total Employer Rate
General Plan 5	8.70%	16.41%	25.11%
Safety Plan 5	15.21%	40.16%	55.37%
Probation Plan 5	13.97%	21.62%	35.59%
Safety Plan 6 (OSS & Mgmt. Only)	14.75%	40.16%	54.91%
Probation Plan 6	14.45%	21.62%	36.07%

### **Member Contribution Rates**

Member contribution rates are shown in the attached Exhibits 1-5. The exhibits show the basic member rate, the COLA portion, and the cost-sharing piece (if applicable). Note that it is our understanding that the cost-sharing piece for Plan 5 requires legislation. It is also our understanding that this enabling legislation (AB 89) was recently passed.

### Results – Adjusted Employer Contribution Rates Effective July 1, 2012

As previously discussed, it is our understanding that the Board will adopt higher employer contribution rates than required under the current funding policy. These contribution rates will be consistent with the employer rates currently being paid. Under this alternative, the employer rates would be as follows:

Class / Plan	Employer Normal Cost Rate	UAAL Rate	Total Employer Rate
General Plan 5	8.70%	18.68%	27.38%
Safety Plan 5	15.21%	52.28%	67.49%
Probation Plan 5	13.97%	24.05%	38.02%
Safety Plan 6 (OSS & Mgmt. Only)	14.75%	52.19%	66.94%
Probation Plan 6	14.45%	23.97%	38.42%



#### **Assumptions & Methods**

The rates shown here are based on prior studies completed for the County. Specifically, the employer rates reflect the data, methods and assumptions used for the June 30, 2008, actuarial valuation report of *SamCERA* dated September 15, 2008, except where noted. Adjustments have been made to account for the new assumptions adopted with the 2011 Investigation of Experience as follows:

- The gross normal cost rate has been increased by a relative 0.7%. That is, the gross normal cost from our study has been multiplied by 100.7%.
- The average member rate used in the calculation of the employer normal cost rate has been increased by a relative 0.3%.
- All member rates shown in Exhibits 1 -5 have been recalculated using the new mortality assumptions.

The ultimate cost of each plan will depend on several factors, including the demographic makeup (primarily number of new hires at each entry age) of the group that selects each plan. Since it is not known what the new hire demography will be, we have assumed it will be the same as that of the existing Plan 4 population. To the extent that new hires selecting each plan are demographically different from that population, the employer Normal Cost rate will change.

In addition, we expect that over the next several years the demography of new hires will evolve until a somewhat stable population demographic is reached. Until that time, we expect that the aggregate employer Normal Cost may be subject to fluctuations from year to year that are greater than those of the current *SamCERA* plans.

Alternate retirement rates were used for Plans 5 and 6 due to the reduced benefit levels as shown in Exhibit 6. These adjustments to the retirement rates are based on an estimate of how the proposed change in benefits may impact members' behaviors. They are subjective assumptions, although we have looked at the rates used by other systems with similar formulas. Also, since the new benefit plans will only apply to new employees, it will be many years before employees actually retire under the new plans. It will be at least 10 to 20 years before hard evidence will emerge regarding the various retirement patterns. During that period of time, other factors may also impact employees' retirement patterns, such as retiree health coverage, longer life expectations, the national economy, etc.

### Certification

In preparing this analysis and the June 30, 2008 and 2011 valuations, we relied, without audit, on information (some oral and some in writing) supplied by the *SamCERA* and County staff. This information includes, but is not limited to, asset information, statutory provisions, and employee data. In our examination of these data, we have found them to be reasonably consistent and comparable with data used for other purposes. Since these results are dependent on the integrity of the information supplied, the results can be expected to differ if the



underlying information is incomplete or missing. It should be noted that if any data or other information is inaccurate or incomplete, 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.

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 Statements 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 exception(s):

- (a) The System may provide a copy of Milliman's work, in its entirety, to the System's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the System.
- (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.

Sincerely,

Nich Colli-

Nick J. Collier, ASA, EA, MAAA Consulting Actuary

NJC/nlo

Enclosures

#### San Mateo County Employees' Retirement Association General Member Rates Plan 5, 1.725% @ 58 Effective July 1, 2012

#### Exhibit 1

	Basic Member	COLA Member	Total Member
Entry Age	Rates	Rates	Rates
16	4.24%	0.92%	5.16%
17	4.32%	0.94%	5.26%
18	4.40%	0.95%	5.35%
19	4.48%	0.97%	5.45%
20	4.57%	0.99%	5.56%
21	4.65%	1.01%	5.66%
22	4.74%	1.03%	5.77%
23	4.83%	1.05%	5.88%
24	4.92%	1.07%	5.99%
25	5.01%	1.09%	6.10%
26	5.10%	1.11%	6.21%
27	5.19%	1.12%	6.31%
28	5.29%	1.15%	6.44%
29	5.39%	1.17%	6.56%
30	5.48%	1.19%	6.67%
31	5.58%	1.21%	6.79%
32	5.69%	1.23%	6.92%
33	5.79%	1.25%	7.04%
34	5.89%	1.28%	7.17%
35	6.00%	1.30%	7.30%
36	6.11%	1.32%	7.43%
37	6.22%	1.35%	7.57%
38	6.33%	1.37%	7.70%
39	6.45%	1.40%	7.85%
40	6.57%	1.42%	7.99%
41	6.69%	1.45%	8.14%
42	6.81%	1.48%	8.29%
43	6.94%	1.50%	8.44%
44	7.06%	1.53%	8.59%
45	7.20%	1.56%	8.76%
46	7.33%	1.59%	8.92%
47	7.46%	1.62%	9.08%
48	7.59%	1.64%	9.23%
49	7.72%	1.67%	9.39%
50	7.84%	1.70%	9.54%
51	7.96%	1.72%	9.68%
52	8.07%	1.75%	9.82%
53	8.17%	1.77%	9.94%
54	8.25%	1.79%	10.04%
55	8.32%	1.80%	10.12%
56	8.36%	1.81%	10.17%
57	8.36%	1.81%	10.17%
58	8.65%	1.87%	10.52%
59	8.97%	1.94%	10.91%



#### San Mateo County Employees' Retirement Association Safety Member Rates Plan 5, 3% @ 55 Effective July 1, 2012

Exhibit 2

Entry AgeRatesRates(w/o cost share)*166.68%2.04%8.72%176.80%2.07%8.87%186.93%2.11%9.04%197.06%2.15%9.21%207.18%2.19%9.37%217.31%2.23%9.54%227.45%2.27%9.72%237.58%2.31%9.89%247.72%2.35%10.07%257.86%2.40%10.26%268.00%2.44%10.44%278.15%2.63%11.03%308.60%2.62%11.22%318.76%2.67%11.43%328.92%2.72%11.64%339.08%2.77%11.85%349.25%2.82%12.07%359.43%2.88%12.31%369.60%2.93%12.53%379.77%2.98%12.75%389.95%3.03%12.98%3910.11%3.08%13.19%4010.27%3.13%13.61%4410.81%3.30%14.11%4510.90%3.32%14.22%4610.95%3.34%14.29%4710.95%3.34%14.29%4811.33%3.46%14.79%4911.75%3.58%15.33%5011.75%3.58%15.33%5111.75%3.58%15.33% <t< th=""><th></th><th>Basic Member</th><th>COLA Member</th><th>Total Member Rates</th></t<>		Basic Member	COLA Member	Total Member Rates
16         6.68%         2.04%         8.72%           17         6.80%         2.07%         8.87%           18         6.93%         2.11%         9.04%           19         7.06%         2.15%         9.21%           20         7.18%         2.19%         9.37%           21         7.31%         2.23%         9.54%           22         7.45%         2.27%         9.72%           23         7.58%         2.31%         9.89%           24         7.72%         2.35%         10.07%           25         7.86%         2.40%         10.26%           26         8.00%         2.44%         10.44%           27         8.15%         2.49%         10.64%           28         8.30%         2.53%         10.83%           29         8.45%         2.58%         11.03%           30         8.60%         2.62%         11.22%           31         8.76%         2.67%         11.43%           32         8.92%         2.77%         11.64%           33         9.08%         2.77%         11.85%           34         9.25%         2.82%         12.	Entry Age		Rates	(w/o cost share) *
18 $6.93\%$ $2.11\%$ $9.04\%$ 19 $7.06\%$ $2.15\%$ $9.21\%$ 20 $7.18\%$ $2.19\%$ $9.37\%$ 21 $7.31\%$ $2.23\%$ $9.54\%$ 22 $7.45\%$ $2.27\%$ $9.72\%$ 23 $7.58\%$ $2.31\%$ $9.89\%$ 24 $7.72\%$ $2.35\%$ $10.07\%$ 25 $7.86\%$ $2.40\%$ $10.26\%$ 26 $8.00\%$ $2.44\%$ $10.44\%$ 27 $8.15\%$ $2.49\%$ $10.64\%$ 28 $8.30\%$ $2.53\%$ $10.83\%$ 29 $8.45\%$ $2.58\%$ $11.03\%$ 30 $8.60\%$ $2.62\%$ $11.22\%$ 31 $8.76\%$ $2.67\%$ $11.43\%$ 32 $8.92\%$ $2.72\%$ $11.64\%$ 33 $9.08\%$ $2.77\%$ $11.85\%$ 34 $9.25\%$ $2.82\%$ $12.07\%$ 35 $9.43\%$ $2.88\%$ $12.31\%$ 36 $9.60\%$ $2.93\%$ $12.53\%$ 37 $9.77\%$ $2.98\%$ $12.75\%$ 38 $9.95\%$ $3.03\%$ $12.98\%$ 39 $10.11\%$ $3.08\%$ $13.19\%$ 40 $10.27\%$ $3.13\%$ $13.40\%$ 41 $10.43\%$ $3.18\%$ $13.61\%$ 42 $10.57\%$ $3.22\%$ $13.79\%$ 43 $10.70\%$ $3.26\%$ $13.96\%$ 44 $10.81\%$ $3.00\%$ $14.11\%$ 45 $10.90\%$ $3.24\%$ $14.29\%$ 46 $10.95\%$ $3.34\%$ $14.29\%$ 47 $10.95\%$ <t< td=""><td>16</td><td>6.68%</td><td>2.04%</td><td>8.72%</td></t<>	16	6.68%	2.04%	8.72%
19         7.06%         2.15%         9.21%           20         7.18%         2.19%         9.37%           21         7.31%         2.23%         9.54%           22         7.45%         2.27%         9.72%           23         7.58%         2.31%         9.89%           24         7.72%         2.35%         10.07%           25         7.86%         2.40%         10.26%           26         8.00%         2.44%         10.44%           27         8.15%         2.49%         10.64%           28         8.30%         2.53%         10.83%           29         8.45%         2.58%         11.03%           30         8.60%         2.62%         11.22%           31         8.76%         2.67%         11.43%           32         8.92%         2.77%         11.85%           34         9.25%         2.82%         12.07%           35         9.43%         2.88%         12.31%           36         9.60%         2.93%         12.53%           37         9.77%         2.98%         12.75%           38         9.95%         3.03%	17	6.80%	2.07%	8.87%
20         7.18%         2.19%         9.37%           21         7.31%         2.23%         9.54%           22         7.45%         2.27%         9.72%           23         7.58%         2.31%         9.89%           24         7.72%         2.35%         10.07%           25         7.86%         2.40%         10.26%           26         8.00%         2.44%         10.44%           27         8.15%         2.49%         10.64%           28         8.30%         2.53%         10.83%           29         8.45%         2.58%         11.03%           30         8.60%         2.62%         11.22%           31         8.76%         2.67%         11.43%           32         8.92%         2.77%         11.85%           34         9.25%         2.82%         12.07%           33         9.08%         2.77%         11.85%           34         9.25%         2.82%         12.07%           35         9.43%         2.88%         12.31%           36         9.60%         2.93%         12.53%           37         9.77%         2.98% <td< td=""><td>18</td><td>6.93%</td><td>2.11%</td><td>9.04%</td></td<>	18	6.93%	2.11%	9.04%
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23       7.58%       2.31%       9.89%         24       7.72%       2.35%       10.07%         25       7.86%       2.40%       10.26%         26       8.00%       2.44%       10.44%         27       8.15%       2.49%       10.64%         28       8.30%       2.53%       10.83%         29       8.45%       2.58%       11.03%         30       8.60%       2.62%       11.22%         31       8.76%       2.67%       11.43%         32       8.92%       2.72%       11.64%         33       9.08%       2.77%       11.85%         34       9.25%       2.82%       12.07%         35       9.43%       2.88%       12.31%         36       9.60%       2.93%       12.53%         37       9.77%       2.98%       12.75%         38       9.95%       3.03%       12.98%         39       10.11%       3.08%       13.19%         40       10.27%       3.13%       13.40%         41       10.43%       3.18%       13.61%         42       10.57%       3.22%       13.96%	21	7.31%	2.23%	9.54%
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26       8.00%       2.44%       10.44%         27       8.15%       2.49%       10.64%         28       8.30%       2.53%       10.83%         29       8.45%       2.58%       11.03%         30       8.60%       2.62%       11.22%         31       8.76%       2.67%       11.43%         32       8.92%       2.72%       11.64%         33       9.08%       2.77%       11.85%         34       9.25%       2.82%       12.07%         35       9.43%       2.88%       12.31%         36       9.60%       2.93%       12.53%         37       9.77%       2.98%       12.75%         38       9.95%       3.03%       12.98%         39       10.11%       3.08%       13.19%         40       10.27%       3.13%       13.40%         41       10.43%       3.18%       13.61%         42       10.57%       3.22%       13.79%         43       10.70%       3.26%       13.96%         44       10.81%       3.30%       14.11%         45       10.90%       3.32%       14.22% <tr< td=""><td>24</td><td>7.72%</td><td>2.35%</td><td>10.07%</td></tr<>	24	7.72%	2.35%	10.07%
278.15%2.49%10.64%288.30%2.53%10.83%298.45%2.58%11.03%308.60%2.62%11.22%318.76%2.67%11.43%328.92%2.72%11.64%339.08%2.77%11.85%349.25%2.82%12.07%359.43%2.88%12.31%369.60%2.93%12.53%379.77%2.98%12.75%389.95%3.03%12.98%3910.11%3.08%13.19%4010.27%3.13%13.40%4110.43%3.18%13.61%4210.57%3.22%13.79%4310.70%3.26%13.96%4410.81%3.30%14.11%4510.90%3.32%14.22%4610.95%3.34%14.29%4710.95%3.34%14.29%4811.33%3.46%14.79%4911.75%3.58%15.33%5011.75%3.58%15.33%5111.75%3.58%15.33%5211.75%3.58%15.33%5311.75%3.58%15.33%	25	7.86%	2.40%	10.26%
288.30%2.53%10.83%298.45%2.58%11.03%308.60%2.62%11.22%318.76%2.67%11.43%328.92%2.72%11.64%339.08%2.77%11.85%349.25%2.82%12.07%359.43%2.88%12.31%369.60%2.93%12.53%379.77%2.98%12.75%389.95%3.03%12.98%3910.11%3.08%13.19%4010.27%3.13%13.40%4110.43%3.18%13.61%4210.57%3.22%13.79%4310.70%3.26%13.96%4410.81%3.30%14.11%4510.90%3.32%14.22%4610.95%3.34%14.29%4710.95%3.34%14.29%4811.33%3.46%14.79%4911.75%3.58%15.33%5011.75%3.58%15.33%5111.75%3.58%15.33%5211.75%3.58%15.33%5311.75%3.58%15.33%	26	8.00%	2.44%	10.44%
298.45%2.58%11.03%308.60%2.62%11.22%318.76%2.67%11.43%328.92%2.72%11.64%339.08%2.77%11.85%349.25%2.82%12.07%359.43%2.88%12.31%369.60%2.93%12.53%379.77%2.98%12.75%389.95%3.03%12.98%3910.11%3.08%13.19%4010.27%3.13%13.40%4110.43%3.18%13.61%4210.57%3.22%13.79%4310.70%3.26%13.96%4410.81%3.30%14.11%4510.90%3.32%14.22%4610.95%3.34%14.29%4710.95%3.34%14.29%4811.33%3.46%14.79%4911.75%3.58%15.33%5011.75%3.58%15.33%5111.75%3.58%15.33%5211.75%3.58%15.33%5311.75%3.58%15.33%	27	8.15%	2.49%	10.64%
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4410.81%3.30%14.11%4510.90%3.32%14.22%4610.95%3.34%14.29%4710.95%3.34%14.29%4811.33%3.46%14.79%4911.75%3.58%15.33%5011.75%3.58%15.33%5111.75%3.58%15.33%5211.75%3.58%15.33%5311.75%3.58%15.33%	42	10.57%	3.22%	13.79%
4510.90%3.32%14.22%4610.95%3.34%14.29%4710.95%3.34%14.29%4811.33%3.46%14.79%4911.75%3.58%15.33%5011.75%3.58%15.33%5111.75%3.58%15.33%5211.75%3.58%15.33%5311.75%3.58%15.33%	43	10.70%	3.26%	13.96%
4610.95%3.34%14.29%4710.95%3.34%14.29%4811.33%3.46%14.79%4911.75%3.58%15.33%5011.75%3.58%15.33%5111.75%3.58%15.33%5211.75%3.58%15.33%5311.75%3.58%15.33%	44	10.81%	3.30%	14.11%
4710.95%3.34%14.29%4811.33%3.46%14.79%4911.75%3.58%15.33%5011.75%3.58%15.33%5111.75%3.58%15.33%5211.75%3.58%15.33%5311.75%3.58%15.33%	45	10.90%	3.32%	14.22%
4811.33%3.46%14.79%4911.75%3.58%15.33%5011.75%3.58%15.33%5111.75%3.58%15.33%5211.75%3.58%15.33%5311.75%3.58%15.33%	46	10.95%	3.34%	14.29%
4911.75%3.58%15.33%5011.75%3.58%15.33%5111.75%3.58%15.33%5211.75%3.58%15.33%5311.75%3.58%15.33%	47	10.95%	3.34%	14.29%
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5211.75%3.58%15.33%5311.75%3.58%15.33%	50	11.75%	3.58%	15.33%
53 11.75% 3.58% 15.33%		11.75%	3.58%	15.33%
	52	11.75%	3.58%	15.33%
54 11.75% 3.58% 15.33%	53	11.75%	3.58%	15.33%
	54	11.75%	3.58%	15.33%

\* Cost share varies by bargaining group, and age and service of members.

Members (except Deputy Sheriffs) contribute 4.0% cost sharing.

Deputy Sheriffs contribute the following cost sharing:

4.5% if age 45 or older

3.0% if less than age 45 and service is less than 5 years

3.5% if less than age 45 and service is between 5 and 15 years

4.5% if less than age 45 and service is more than 15 years



#### San Mateo County Employees' Retirement Association Probation Member Rates Plan 5, 3% @ 55, 20% employer pick-up reflected in basic member rates Effective July 1, 2012

#### Exhibit 3

			Total Member		
	Basic Member	COLA Member	Rates		Total Member
Entry Age	Rates	Rates	(w/o cost share)	Cost Share	Rates
16	5.34%	2.01%	7.35%	3.50%	10.85%
17	5.44%	2.05%	7.49%	3.50%	10.99%
18	5.54%	2.09%	7.63%	3.50%	11.13%
19	5.64%	2.13%	7.77%	3.50%	11.27%
20	5.75%	2.17%	7.92%	3.50%	11.42%
21	5.85%	2.21%	8.06%	3.50%	11.56%
22	5.96%	2.25%	8.21%	3.50%	11.71%
23	6.07%	2.29%	8.36%	3.50%	11.86%
24	6.18%	2.33%	8.51%	3.50%	12.01%
25	6.29%	2.37%	8.66%	3.50%	12.16%
26	6.40%	2.41%	8.81%	3.50%	12.31%
27	6.52%	2.46%	8.98%	3.50%	12.48%
28	6.64%	2.50%	9.14%	3.50%	12.64%
29	6.76%	2.55%	9.31%	3.50%	12.81%
30	6.88%	2.59%	9.47%	3.50%	12.97%
31	7.01%	2.64%	9.65%	3.50%	13.15%
32	7.14%	2.69%	9.83%	3.50%	13.33%
33	7.27%	2.74%	10.01%	3.50%	13.51%
34	7.40%	2.79%	10.19%	3.50%	13.69%
35	7.54%	2.84%	10.38%	3.50%	13.88%
36	7.68%	2.90%	10.58%	3.50%	14.08%
37	7.82%	2.95%	10.77%	3.50%	14.27%
38	7.96%	3.00%	10.96%	3.50%	14.46%
39	8.09%	3.05%	11.14%	3.50%	14.64%
40	8.22%	3.10%	11.32%	3.50%	14.82%
41	8.34%	3.14%	11.48%	3.50%	14.98%
42	8.46%	3.19%	11.65%	3.50%	15.15%
43	8.56%	3.23%	11.79%	3.50%	15.29%
44	8.65%	3.26%	11.91%	3.50%	15.41%
45	8.72%	3.29%	12.01%	3.50%	15.51%
46	8.76%	3.30%	12.06%	3.50%	15.56%
47	8.76%	3.30%	12.06%	3.50%	15.56%
48	9.07%	3.42%	12.49%	3.50%	15.99%
49	9.40%	3.54%	12.94%	3.50%	16.44%
50	9.40%	3.54%	12.94%	3.50%	16.44%
51	9.40%	3.54%	12.94%	3.50%	16.44%
52	9.40%	3.54%	12.94%	3.50%	16.44%
53	9.40%	3.54%	12.94%	3.50%	16.44%
54	9.40%	3.54%	12.94%	3.50%	16.44%



### San Mateo County Employees' Retirement Association Safety Member Rates Plan 6, 2% @ 50 Effective July 1, 2012

#### Exhibit 4

	Basic Member	COLA Member	Total Member
Entry Age	Rates	Rates	Rates
16	6.68%	1.80%	8.48%
17	6.80%	1.83%	8.63%
18	6.93%	1.86%	8.79%
19	7.06%	1.90%	8.96%
20	7.18%	1.93%	9.11%
21	7.31%	1.96%	9.27%
22	7.45%	2.00%	9.45%
23	7.58%	2.04%	9.62%
24	7.72%	2.08%	9.80%
25	7.86%	2.11%	9.97%
26	8.00%	2.15%	10.15%
27	8.15%	2.19%	10.34%
28	8.30%	2.23%	10.53%
29	8.45%	2.27%	10.72%
30	8.60%	2.31%	10.91%
31	8.76%	2.35%	11.11%
32	8.92%	2.40%	11.32%
33	9.08%	2.44%	11.52%
34	9.25%	2.49%	11.74%
35	9.43%	2.53%	11.96%
36	9.60%	2.58%	12.18%
37	9.77%	2.63%	12.40%
38	9.95%	2.67%	12.62%
39	10.11%	2.72%	12.83%
40	10.27%	2.76%	13.03%
41	10.43%	2.80%	13.23%
42	10.57%	2.84%	13.41%
43	10.70%	2.88%	13.58%
44	10.81%	2.91%	13.72%
45	10.90%	2.93%	13.83%
46	10.95%	2.94%	13.89%
47	10.95%	2.94%	13.89%
48	11.33%	3.05%	14.38%
49	11.75%	3.16%	14.91%



### San Mateo County Employees' Retirement Association Probation Member Rates Plan 6, 2% @ 50, 20% employer pick-up reflected in basic member rates Effective July 1, 2012

#### Exhibit 5

	Basic Member	COLA Member	Total Member
Entry Age	Rates	Rates	Rates
16	5.34%	1.77%	7.11%
17	5.44%	1.80%	7.24%
18	5.54%	1.84%	7.38%
19	5.64%	1.87%	7.51%
20	5.75%	1.91%	7.66%
21	5.85%	1.94%	7.79%
22	5.96%	1.98%	7.94%
23	6.07%	2.01%	8.08%
24	6.18%	2.05%	8.23%
25	6.29%	2.09%	8.38%
26	6.40%	2.12%	8.52%
27	6.52%	2.16%	8.68%
28	6.64%	2.20%	8.84%
29	6.76%	2.24%	9.00%
30	6.88%	2.28%	9.16%
31	7.01%	2.33%	9.34%
32	7.14%	2.37%	9.51%
33	7.27%	2.41%	9.68%
34	7.40%	2.46%	9.86%
35	7.54%	2.50%	10.04%
36	7.68%	2.55%	10.23%
37	7.82%	2.59%	10.41%
38	7.96%	2.64%	10.60%
39	8.09%	2.68%	10.77%
40	8.22%	2.73%	10.95%
41	8.34%	2.77%	11.11%
42	8.46%	2.81%	11.27%
43	8.56%	2.84%	11.40%
44	8.65%	2.87%	11.52%
45	8.72%	2.89%	11.61%
46	8.76%	2.91%	11.67%
47	8.76%	2.91%	11.67%
48	9.07%	3.01%	12.08%
49	9.40%	3.12%	12.52%



# San Mateo County Employees' Retirement Association June 30, 2011 Actuarial Valuation

# Exhibit 6 Retirement Rates

Age*	General	Probation and Safety
45	0.000	0.000
46	0.000	0.000
47	0.000	0.000
48	0.000	0.000
49	0.000	0.000
50	0.030	0.030
51	0.030	0.030
52	0.030	0.030
53	0.030	0.030
54	0.030	0.030
55	0.050	0.050
56	0.060	0.060
57	0.080	0.080
58	0.100	0.100
59	0.100	0.100
60	0.120	0.120
61	0.150	0.150
62	0.250	0.250
63	0.200	0.200
64	0.200	0.200
65	0.400	0.400
66	0.250	0.250
67	0.250	0.250
68	0.250	0.250
69	0.250	0.250
70 & Up	1.000	1.000

\* 100% probability is assumed when member reaches following age/svc combinations:

	General		Probation and Safety	
	Age	Service	Age	Service
Plan 5	62	38	50	33
Plan 6	n/a	n/a	55	38

