

# **Alameda County Employees' Retirement Association**

**Actuarial Valuation and Review  
as of December 31, 2012**

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

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April 4, 2013

*Board of Retirement  
Alameda County Employees' Retirement Association  
475 14<sup>th</sup> Street, Suite 1000  
Oakland, CA 94612*

*Dear Board Members:*

*We are pleased to submit this Actuarial Valuation and Review as of December 31, 2012. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2013-2014 and analyzes the preceding year's experience.*

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

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

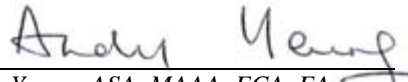
*We are Members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board are reasonably related to the experience of and the expectations for the Plan.*

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

*Sincerely,*

*THE SEGAL COMPANY*

By:   
\_\_\_\_\_  
*Paul Angelo, FSA, MAAA, FCA, EA  
Senior Vice President and Actuary*

  
\_\_\_\_\_  
*Andy Yeung, ASA, MAAA, FCA, EA  
Vice President and Associate Actuary*

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

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### Purpose

This report has been prepared by The Segal Company to present a valuation of the Alameda County Employees' Retirement Association as of December 31, 2012. The valuation was performed to determine whether the assets and contributions are sufficient to provide the prescribed benefits. The contribution requirements presented in this report are based on:

- The benefit provisions of the Retirement Association, as administered by the Board of Retirement;
- The characteristics of covered active members, inactive vested members, retired members and beneficiaries as of November 30, 2012, provided by the Retirement Association;
- The assets of the Plan as of December 31, 2012, provided by the Retirement Association;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc. that the Board has adopted for the December 31, 2012 valuation.

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

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

The contribution requirements are determined as a percentage of payroll. The Association's employer rates provide for both normal cost and a payment or credit to amortize any unfunded or overfunded actuarial accrued liabilities. In this valuation, we have reflected the Board's revised funding policy to amortize the Association's unfunded actuarial accrued liability using a layered approach. The aggregate employer contribution rate calculated on this basis is 24.16% of payroll. In this valuation, we have applied the 7.80% net investment earnings, 3.50% inflation, and 0.50% across-the-board salary increase assumptions carried over by the Board from the December 31, 2011 valuation. The 7.80% investment return assumption has been developed without taking into consideration the impact of the "excess earnings" sharing mechanism between the SRBR and the Retirement Plan. The rates calculated in this report may be adopted by the Board for the fiscal year that extends from July 1, 2013 through June 30, 2014.

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

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### Significant Issues in Valuation Year

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

- The California Public Employees' Pension Reform Act (CalPEPRA) of 2013 (AB340) was passed on September 12, 2012 and became effective on January 1, 2013. In general, it affects new members who enter the plan on or after January 1, 2013. New plan provisions include new benefit formulas, a limit on pensionable income, 3-year final average salary, and new cost sharing by members. The impact of AB340 has been addressed in this report. We understand that ACERA has created new General Tier 4 and Safety Tier 4 for members covered under AB340, and we have included in this report employee and employer rates for members who will be covered under those Tiers.

The Tier 4 contribution rates have been developed based on the same methods and assumptions used to estimate the costs in our new tier report dated November 20, 2012. In particular, as the new tier formulas are only offered to new employees, and since data for such employees is not yet available, we have assumed in this valuation that their demographic profiles (e.g., entry age, composition of male versus female, etc.) can be approximated by the data profiles of current active members hired after January 1, 2011<sup>1</sup>. With the exception of the service retirement assumptions, the elimination of a "load" on the Normal Cost to anticipate terminal pay under the new tier formulas, and the funding policy changes noted below, the Tier 4 rates in this report are based on the actuarial assumptions and methodologies adopted by the ACERA Board of Retirement for use in the December 31, 2011 valuation.

- As directed by ACERA, we have continued to assume in this valuation that the current members in the non-CalPEPRA tiers will be able to convert the same amount of terminal pay during their final average compensation period as assumed in the last valuation. It is our understanding that the Association is deferring the implementation of the compensation earnable provisions found in AB197 until some legal issues raised in a subsequent lawsuit are resolved.
- In our review of the Board's actuarial funding policy (reference: letter dated September 18, 2012), we recommended a modification to the Entry Age Normal cost method that was used by ACERA. The modification we recommended was a change in the normal cost calculation from an aggregate basis to an individual basis, and this change was adopted by the Board for use in the December 31, 2012 valuation. The results of this valuation reflect this change in the normal cost calculation, which resulted in an increase in the aggregate employee contribution rate of 0.33% of payroll and an increase

*Ref: Pg. 24 and Pg. 25*

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<sup>1</sup> Note that in preparing our original report dated November 20, 2012, we assumed that new entrants in the CalPEPRA tiers would be approximated by the data profiles of the active members hired after January 1, 2011 as reported in the December 31, 2011 valuation.

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

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in the aggregate employer contribution rate of 0.65%. For the aggregate employee rate, this increase was mainly the result of how the new method accounts for member contributions (mainly with regard to the 30-year cessation). The individual member contribution rates remain virtually unchanged.

*Ref: Pg. 49*

- In the review of the Board's actuarial funding policy mentioned above, we also recommended alternative amortization periods for use in amortizing any new unfunded actuarial accrued liability (UAAL) on or after January 1, 2012, with separate amortization periods depending on the source of the UAAL change. The Board adopted alternative #2 from our September 18, 2012 policy review, which utilizes the following amortization periods by source: 20 years for actuarial gains or losses; 20 years for assumption or method changes, 15 years for plan amendments; 5 years for Early Retirement Incentive Programs; and 30 years for actuarial surplus. The results of this valuation reflect these changes in the amortization periods. However, these changes had no immediate impact on the employer contribution rates determined as of December 31, 2012, since as of that date the remaining amortization period for any UAAL established prior to January 1, 2012 is the same 20 years that is used for actuarial gains/loss or assumption/method changes for any new UAAL established after that date.

*Ref: Pg. 56*

- In the December 31, 2011 valuation, the ratio of the valuation value of assets to actuarial accrued liabilities was 76.6%. In this December 31, 2012 valuation, the funding ratio has declined to 73.9%. The funded ratio if measured on a market value of assets basis increased from 69.0% to 75.7%.
- The Association's unfunded actuarial accrued liability (UAAL) as of December 31, 2011 was \$1,490.8 million. In this year's valuation, the UAAL has increased to \$1,729.1 million.

*Ref: Pg. 8 and Pg. 48*

- The Plan had a net actuarial experience loss of about \$220.3 million since the prior actuarial valuation. A reconciliation of the Association's UAAL is provided in Section 3, Exhibit H.
- Employer rates for ACMC/Court/First 5 are higher than the County's rates to reflect that only the County has received a reimbursement of \$7.4 million for the implicit retiree health benefit subsidy paid by the County for 2012 (note that this amount is an estimated amount provided by ACERA). The \$7.4 million and the unused credit from prior years' transfers (the balance of prior transfers was about \$28.8 million as of December 31, 2012) have been recognized over separate 20-year periods (i.e., 20 years is the remaining period as of December 31, 2012 for the unused credit from prior years' transfers).

*Ref: Pg. 24 and Pg. 96*

- The aggregate employer rate calculated in this valuation has increased from 21.32% of payroll to 24.16% of payroll. This change is due primarily to lower than expected return on investments (after smoothing), amortizing the prior year's UAAL

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

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over a smaller than expected projected total payroll, the scheduled delay in implementing last year's employer contribution rates after the date of the valuation, and the change to the individual Entry Age Normal method. These losses were partially offset by gains from lower than expected salary increases for active members. A reconciliation of the Association's aggregate employer rate is provided in Section 2, Subsection D (see Chart 15). A schedule of the projected contributions by each participating employer is provided in Appendix B.

*Ref: Pg. 25 and Pg. 76*

- The aggregate member rate calculated in this valuation has increased from 8.27% of payroll to 8.60% of payroll as a result of change to the individual Entry Age Normal method. A reconciliation of the Association's aggregate member rate is provided in Section 2, Subsection D (see Chart 16). Again, for this aggregate employee rate, this increase was mainly the result of how the new method accounts for member contributions (mainly with regard to the 30-year cessation). The individual member contribution rates remain virtually unchanged.

The individual member rates have been updated to reflect the valuation as of December 31, 2012. The detailed member rates are provided in Appendix A of this report. Note that as requested by the Association subsequent to the release of the December 31, 2011 valuation, we are now providing two tables of member rates for Safety Tier 2D members. The first table is for members with less than five years of vesting service and includes a 5.00% cost sharing contribution. The second table is for members with five or more years of vesting service and includes a 3.00% cost sharing contribution.

- Historically, a \$5,000 lump sum benefit has been paid by the Association for death after retirement. Of that amount, \$750 had been funded by the employer and the remaining \$4,250 had been funded by the Supplemental Retirees Benefit Reserve. Those benefits had been historically excluded from the valuation. As the Board of Retirement has recently decided to eliminate the portion of the \$4,250 lump sum paid from the SRBR, we will work with the Association to determine how the funding of the \$750 should be reflected in future valuations.

*Ref: Pg. 6*

- As indicated in Section 2, Subsection B (see Chart 7) of this report, the total unrecognized net investment gain as of December 31, 2012 is \$124.9 million (in the previous valuation, this amount was a \$481.8 million loss). This net investment gain will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years, and will offset any investment losses that may occur after December 31, 2012. This implies that if the Association earns the assumed net rate of investment return of 7.80% per year on a **market value** basis, it will result in investment gains on the actuarial value of assets in the next few years. So, if the actual market return is equal to the assumed 7.80% rate and all other actuarial assumptions are met, the contribution requirements would decrease in each of the next few years.

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

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The net deferred gains of \$124.9 million represent 2.2% of the market value of assets as of December 31, 2012. Unless offset by future investment losses or other unfavorable experience, the recognition of the \$124.9 million market gain is expected to have a significant impact on the Association's future funded percentage and contribution rate requirements. Under a simplified approach, this potential impact may be illustrated as follows:

- If the net deferred gains were recognized immediately and entirely in the valuation value of assets, the funded percentage would increase from 73.9% to 75.7%.
- If the net deferred gains were recognized immediately and entirely in the valuation value of assets, the aggregate employer rate would decrease from 24.16% to about 23.2% of payroll.

➤ The actuarial valuation report as of December 31, 2012 is based on financial information as of that date. Changes in the value of assets subsequent to that date are not reflected. Declines in asset values will increase the actuarial cost of the plan, while increases will decrease the actuarial cost of the plan.

*Ref: Pg. 27*

➤ In 2012, the California Actuarial Advisory Panel (CAAP) adopted a set of model disclosure elements recommended for actuarial valuation reports for public retirement systems in California. Information has been added to this valuation report consistent with the recommendations regarding basic disclosure elements. In particular, we are now including new information regarding measures of plan volatility.

➤ The Governmental Accounting Standards Board (GASB) recently approved two new Statements affecting the reporting of pension liabilities for accounting purposes. Statement 67 replaces Statement 25 and is for plan reporting. Statement 68 replaces Statement 27 and is for employer reporting. It is important to note that the new GASB rules only redefine pension expense for financial reporting purposes, and do not apply to contribution amounts for actual pension funding purposes. Employers and plans can still develop and adopt funding policies under current practices. While these new Statements are applicable for preparing the 2014 calendar year financial statement for the Plan's reporting and for the 2014/2015 fiscal year financial statement for the employer's reporting, the actual preparation of schedules in compliance with those Statements will depend upon GASB's issuance of detailed implementation guides for the Plan and the employer, anticipated around June 2013 and January 2014, respectively. As a result, we have continued to use Statements 25 and 27 in preparing the financial reporting information in this report.



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

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### Impact of Future Experience on Contribution Rates

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

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

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

**Summary of Key Valuation Results (Dollar amounts in thousands)**

	December 31, 2012		December 31, 2011	
<b>Employer Contribution Rates:</b>				
<u>County</u>	Total Rate	Estimated Annual Amount <sup>(1)</sup>	Total Rate	Estimated Annual Amount <sup>(1)</sup>
General Tier 1	19.86%	\$5,899	17.76%	\$5,275
General Tier 2	19.19	87,705	16.84	76,964
General Tier 4	17.77	0	16.18	0
Safety Tier 1	62.25	1,745	56.09	1,571
Safety Tier 2	48.91	65,349	43.58	58,227
Safety Tier 2C	51.05	1,072	44.45	934
Safety Tier 2D	46.61	2,332	42.02	2,103
Safety Tier 4	47.27	0	41.89	0
County Combined	26.04	164,102	23.02	145,074
<u>ACMC/Court/First 5</u>				
General Tier 1	20.27	2,061	18.07	1,837
General Tier 2	19.60	50,414	17.15	44,113
General Tier 4	18.18	0	16.49	0
<u>District</u>				
General Tier 1	25.38	1,337	23.11	1,217
General Tier 2	24.71	63	22.19	56
General Tier 3	30.94	1,032	29.15	972
General Tier 4 (Housing Authority, Office of Education)	23.29	0	21.53	0
General Tier 4 (LARPD Only)	24.06	0	23.08	0
<u>All Categories Combined</u>	24.16	219,009	21.32	193,269
<b>Average Member Contribution Rates:</b>				
	Total Rate	Estimated Annual Amount <sup>(1)</sup>	Total Rate <sup>(2)</sup>	Estimated Annual Amount <sup>(1)</sup>
General Tier 1	9.02%	\$4,072	9.26%	\$4,180
General Tier 2	7.32	52,302	7.04	50,301
General Tier 3	12.78	426	12.51	417
General Tier 4	8.25	0	8.25	0
Safety Tier 1	11.53	323	11.72	328
Safety Tier 2	14.77	19,734	13.99	18,692
Safety Tier 2C	12.50	263	11.77	247
Safety Tier 2D	16.43	822	15.94	798
Safety Tier 4	13.75	0	13.75	0
All Categories Combined	8.60	77,942	8.27	74,963

<sup>(1)</sup> Based on December 31, 2012 projected annual compensation.

<sup>(2)</sup> Average rates have been recalculated by applying the individual entry age based member rates determined in the December 31, 2011 valuation to the Association membership as of December 31, 2012.

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

**Summary of Key Valuation Results - continued (Dollar amounts in thousands)**

	December 31, 2012	December 31, 2011
<b>Funded Status:</b>		
Actuarial Accrued Liability (AAL) <sup>(3)</sup>	\$6,612,929	\$6,359,483
Valuation Value of Assets (VVA) <sup>(4)</sup>	4,883,872	4,868,689
Funded Percentage on VVA Basis	73.9%	76.6%
Unfunded Actuarial Accrued Liability (UAAL)	\$1,729,057	\$1,490,794
Market Value of Assets (MVA) <sup>(4)</sup>	5,008,773	4,386,844
Funded Percentage on MVA Basis	75.7%	69.0%
<b>Key Economic Assumptions:</b>		
Interest Rate	7.80%	7.80%
Inflation Rate	3.50%	3.50%
Across-the-Board Salary Increase	0.50%	0.50%

<sup>(3)</sup> Excludes liabilities held for SRBR and other non-valuation reserves.

<sup>(4)</sup> Excludes Reserve for Interest Fluctuations (Contingency Reserve) if positive, Supplemental Retirees Benefit Reserve, and other non-valuation reserves (Death Benefit – Burial & 401 (h) Reserves).

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

**Summary of Key Valuation Demographic and Financial Data**

	<b>December 31, 2012</b>	<b>December 31, 2011</b>	<b>Percentage Change</b>
<b>Active Members:</b>			
Number of members	10,800	10,724	0.7%
Average age	47.6	47.7	N/A
Average service	11.8	11.8	N/A
Projected total compensation	\$906,500,000	\$892,489,000	1.6%
Average projected compensation	\$83,935	\$83,224	0.9%
<b>Retired Member and Beneficiaries:</b>			
Number of members:			
Service retired	6,234	6,000	3.9%
Disability retired	819	811	1.0%
Beneficiaries	1,122	1,095	2.5%
Total	8,175	7,906	3.4%
Average age	70.6	70.5	N/A
Average monthly benefit <sup>(1)</sup>	\$3,332	\$3,190	4.5%
<b>Vested Terminated Members:</b>			
Number of vested terminated members <sup>(2)</sup>	1,835	1,796	2.2%
Average age	48.8	48.5	N/A
<b>Summary of Financial Data (dollar amounts in thousands):</b>			
Market value of assets	\$5,668,204	\$5,074,398	11.7%
Return on market value of assets	13.91%	-1.04%	N/A
Actuarial value of assets	\$5,543,303	\$5,556,243	-0.2%
Return on actuarial value of assets	1.67%	3.03%	N/A
Valuation value of assets	\$4,883,872	\$4,868,689	0.3%
Return on valuation value of assets	1.59%	3.15%	N/A

(1) Excludes monthly benefits payable from the SRBR.

(2) Includes members who left their contributions on deposit even though they have less than five years of service.

**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

**A. MEMBER DATA**

The Actuarial Valuation and Review considers the number and demographic characteristics of covered members, including active members, vested terminated members, retired members and beneficiaries.

This section presents a summary of significant statistical data on these member groups.

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

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

**CHART 1**  
**Member Population: 2003 – 2012**

<b>Year Ended December 31</b>	<b>Active Members</b>	<b>Vested Terminated Members*</b>	<b>Retired Members and Beneficiaries</b>	<b>Ratio of Non-Actives to Actives</b>
2003	11,220	1,224	6,287	0.67
2004	10,556	1,361	6,475	0.74
2005	10,503	1,522	6,718	0.78
2006	10,662	1,722	6,936	0.81
2007	10,912	1,730	7,183	0.82
2008	11,173	1,773	7,246	0.81
2009	10,927	1,816	7,333	0.84
2010	10,879	1,785	7,558	0.86
2011	10,724	1,796	7,906	0.90
2012	10,800	1,835	8,175	0.93

\* Includes terminated members due a refund of member contributions

**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

**Active Members**

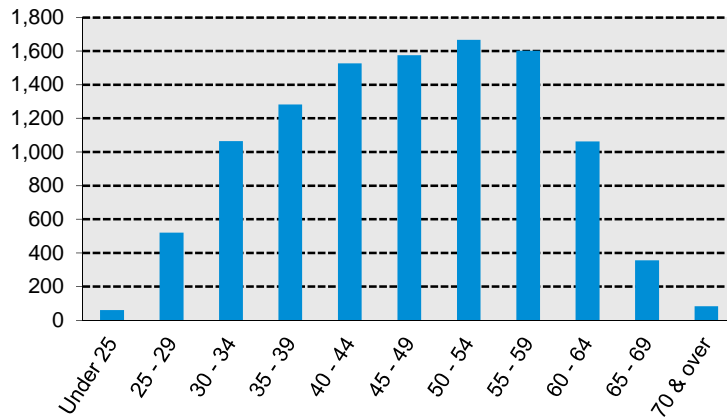
Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there were 10,800 active members with an average age of 47.6 years, average years of service of 11.8 and average compensation of \$83,935. The 10,724 active members in the prior valuation had an average age of 47.7 years, average service of 11.8 and average compensation of \$83,224.

**Inactive Members**

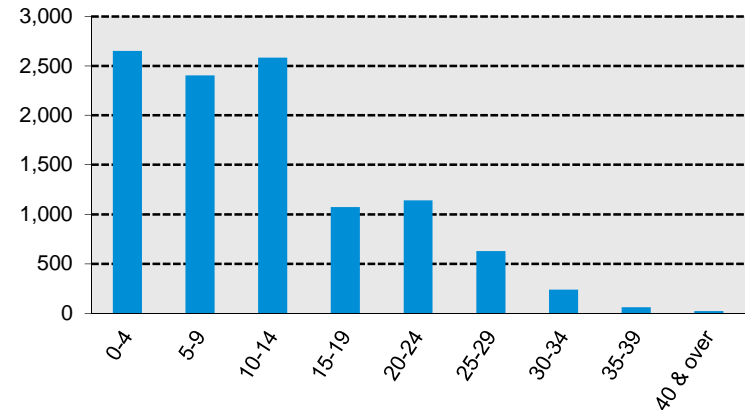
In this year's valuation, there were 1,835 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 1,796 in the prior valuation.

*These graphs show a distribution of active members by age and by years of service. Age and years of service have been projected to December 31, 2012 based on census data collected as of November 30, 2012.*

**CHART 2**  
**Distribution of Active Members by Age as of December 31, 2012**



**CHART 3**  
**Distribution of Active Members by Years of Service as of December 31, 2012**



**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

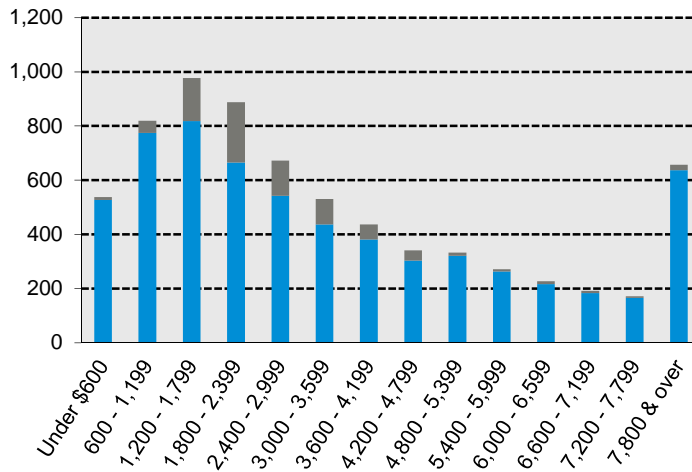
**Retired Members and Beneficiaries**

As of December 31, 2012, 7,053 retired members and 1,122 beneficiaries were receiving total monthly benefits of \$27,239,890. For comparison, in the previous valuation, there were 6,811 retired members and 1,095 beneficiaries receiving monthly benefits of \$25,221,884. These monthly benefits exclude supplemental COLA benefits payable from the Supplemental Retirees Benefit Reserve (SRBR).

*These graphs show a distribution of the current retired members based on their monthly amount and age, by type of pension. Age has been projected to December 31, 2012 based on census data collected as of November 30, 2012.*

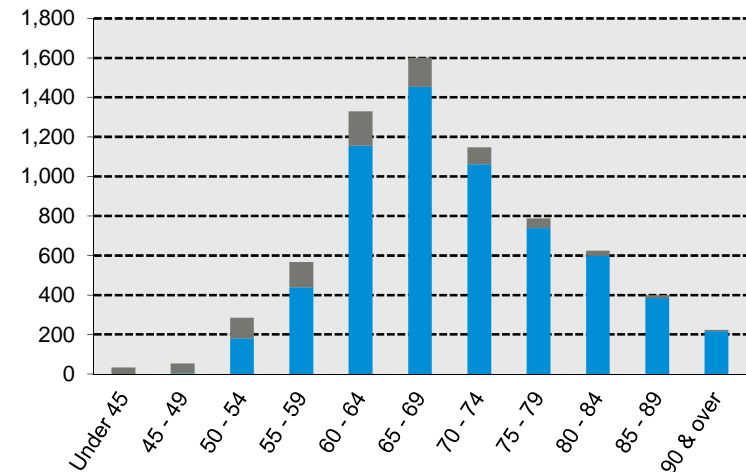
**CHART 4**

**Distribution of Retired Members (Excl. Beneficiaries) by Type and by Monthly Amount as of December 31, 2012**



**CHART 5**

**Distribution of Retired Members (Excl. Beneficiaries) by Type and by Age as of December 31, 2012**



**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

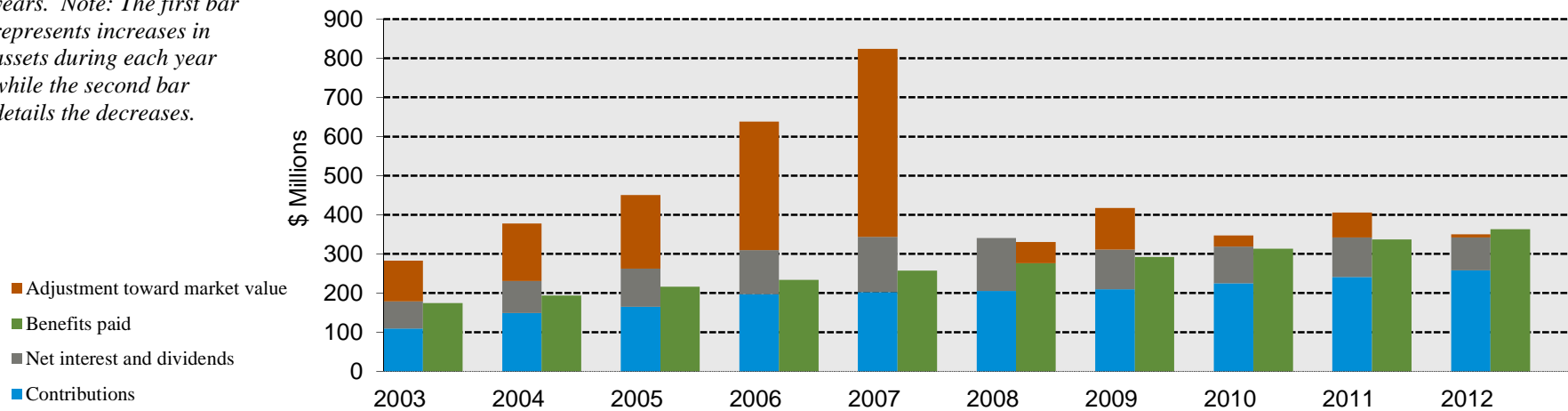
**B. FINANCIAL INFORMATION**

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

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

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

**CHART 6**  
**Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended December 31, 2003 through 2012**





## SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association

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

The amount of the adjustment to recognize market value is treated as income, which may be positive or negative. Realized and unrealized gains and losses are treated equally and, therefore, the sale of assets has no immediate effect on the actuarial value of assets.

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

**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

**CHART 7**

**Determination of Actuarial Value of Assets for Year Ended December 31, 2012**

Six Month Period		Total Actual	Expected	Investment	Deferred	Deferred
From	To	Market	Market	Gain (Loss)	Factor	Return
		Return (net)	Return (net)			
01/01/2008	06/30/2008	\$(440,360,426)	\$222,347,812	\$(662,708,239)	0.0	\$0
07/01/2008	12/31/2008	(1,257,698,668)	203,277,365	(1,460,976,033)	0.1	(146,097,603)
01/01/2009	06/30/2009	252,817,171	151,382,559	101,434,612	0.2	20,286,922
07/01/2009	12/31/2009	700,848,916	159,815,655	541,033,261	0.3	162,309,978
01/01/2010	06/30/2010	(171,083,230)	186,202,514	(357,285,743)	0.4	(142,914,297)
07/01/2010	12/31/2010	806,700,469	175,307,561	631,392,909	0.5	315,696,454
01/01/2011	06/30/2011	274,085,462	205,402,533	68,682,929	0.6	41,209,757
07/01/2011	12/31/2011	(327,895,627)	214,282,574	(542,178,201)	0.7	(379,524,741)
01/01/2012	06/30/2012	295,998,792	199,451,466	96,547,326	0.8	77,237,860
07/01/2012	12/31/2012	402,683,765	206,354,148	196,329,617	0.9	176,696,655
1. Total Deferred Return						\$124,900,987
2. Net Market Value						5,668,204,196
3. Actuarial Value of Assets (Item 2 – Item 1)						5,543,303,209
4. Actuarial Value as a Percentage of Market Value (Before Corridor; Item 3 / Item 2)						97.8%
5. Actuarial Value of Assets – Corridor Limits:						
a. Lower Limit – 60% of Net Market Value						3,400,922,518
b. Upper Limit – 140% of Net Market Value						7,935,485,874
6. Actuarial Value of Assets (within corridor)						5,543,303,209
7. Non-valuation reserves and designations:						
a. Reserve for Interest Fluctuations (Contingency Reserve), but no less than \$0						83,757,986
b. Supplemental Retirees Benefit Reserve (SRBR)						570,878,930
c. Other Non-Valuation Reserves (Death Benefit-Burial & 401(h) Reserves)						12,164,793
d. SRBR Transfer to Employer Advance Reserve**						(7,370,466)
e. Subtotal						\$659,431,243
8. Valuation Value of Assets (Item 6 – Item 7e)						\$4,883,871,966

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

*Note: Results may not add due to rounding.*

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

*12/31/13: \$1,093,738 12/31/14: \$72,801,093 12/31/15: \$27,015,625 12/31/16: \$4,357,568 12/31/17: \$19,632,962*

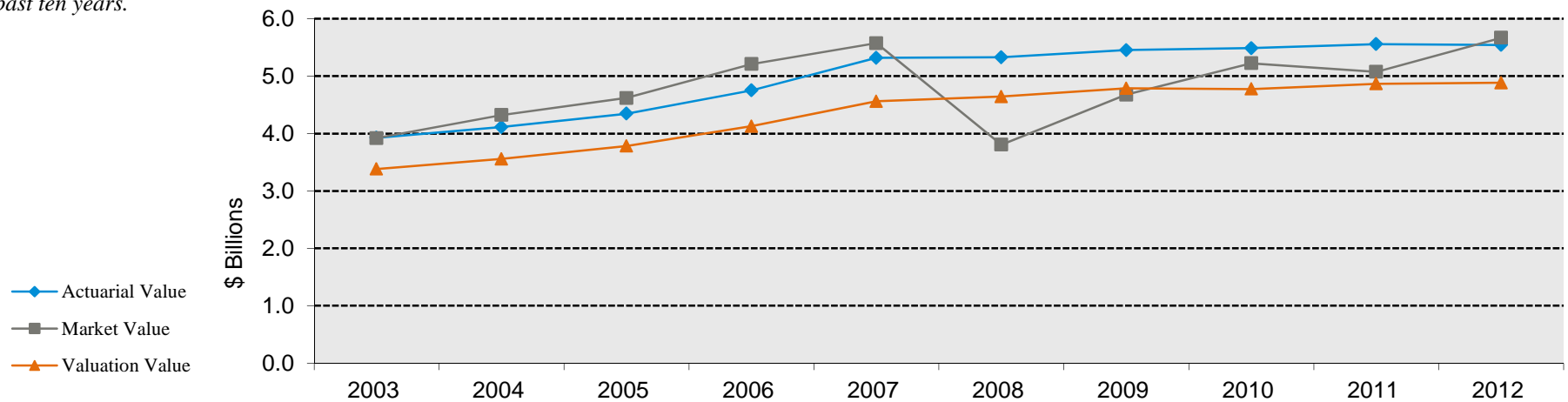
\*\* *Estimate provided by ACERA.*

**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

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

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

**CHART 8**  
**Market Value, Actuarial Value and Valuation Value of Assets as of December 31, 2003 – 2012**



**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

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**C. ACTUARIAL EXPERIENCE**

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

Taking account of experience gains or losses in one year without making a change in assumptions reflects the belief that the single year's experience was a short-term development and that, over the long term, experience will return to the original assumptions. For contribution

requirements to remain stable, assumptions should approximate experience.

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

The total experience loss was \$220.3 million, a net loss of \$300.3 million from investments and a gain of \$80.0 million from all other sources. The net experience variation from individual sources other than investments was 1.2% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

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

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**CHART 9**  
**Actuarial Experience for Year Ended December 31, 2012**

1. Net loss from investments <sup>(1)</sup>	\$300,350,000
2. Net gain from other experience <sup>(2)</sup>	<u>(80,011,000)</u>
3. Net experience loss <sup>(3)</sup> : (1) + (2)	\$220,339,000

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

<sup>(2)</sup> See Section 3, Exhibit H.

<sup>(3)</sup> Excludes loss from contributions less than anticipated due to scheduled one-year delay in implementing the higher contribution rate calculated in the December 31, 2011 valuation.

**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

**Investment Rate of Return**

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on ACERA's investment policy. For valuation purposes, the assumed rate of return on the valuation value of assets was 7.80%. The actual rate of return on a valuation value of assets basis for the 2012 plan year was 1.59%.

Since the actual return for the year was less than the assumed return, ACERA experienced an actuarial loss during the year ended December 31, 2012 with regard to its investments.

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

**CHART 10**  
**Investment Experience for Year Ended December 31, 2012 –**  
**Valuation Value, Actuarial Value, and Market Value of Assets**

	<b>Valuation Value</b>	<b>Actuarial Value</b>	<b>Market Value</b>
1. Actual return	\$76,720,113	\$91,936,980	\$698,682,557
2. Average value of assets	4,834,235,177	5,503,804,501	5,021,959,911
3. Actual rate of return: (1) ÷ (2)	1.59%	1.67%	13.91%
4. Assumed rate of return	7.80%	7.80%	7.80%
5. Expected return: (2) x (4)	377,070,344	429,296,751	391,712,873
6. Actuarial gain/(loss): (1) - (5)	<u>\$(300,350,231)</u>	<u>\$(337,359,771)</u>	<u>\$306,969,684</u>

**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

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

Based on recommendations previously adopted by the Board, we have maintained the assumed long-term rate of return of 7.80% for the December 31, 2012 valuation.

**CHART 11**

**Investment Return – Valuation Value, Actuarial Value and Market Value: 2003 – 2012**

Year Ended December 31	Valuation Value Investment Return		Actuarial Value Investment Return		Market Value Investment Return	
	Amount	Percent	Amount	Percent	Amount	Percent
2003	\$128,596,301	3.93%	\$173,434,404	4.58%	\$802,017,260	25.46%
2004	195,406,503	5.79%	229,088,351	5.87%	447,795,887	11.49%
2005	247,067,988	6.97%	285,732,957	6.99%	347,722,582	8.09%
2006	355,019,495	9.40%	440,937,597	10.19%	627,526,993	13.64%
2007	454,105,997	11.03%	621,715,716	13.16%	419,578,805	8.10%
2008	118,705,974	2.61%	81,465,408	1.54%	-1,698,059,095	-30.65%
2009	190,184,291	4.12%	208,175,576	3.94%	953,666,087	25.33%
2010	36,890,575	0.77%	122,091,092	2.26%	635,617,239	13.72%
2011	149,447,325	3.15%	164,671,046	3.03%	-53,810,165	-1.04%
2012	76,720,113	1.59%	91,936,980	1.67%	698,682,557	13.91%
Ten-Year Average Return		4.89%		5.26%		7.54%

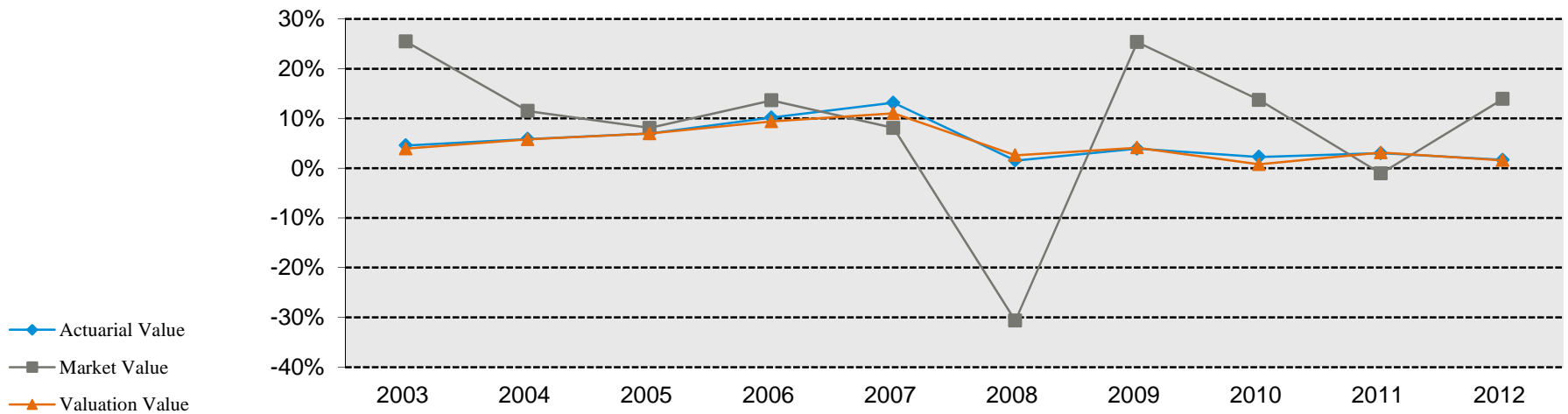
**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

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

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**CHART 12**  
**Market, Actuarial and Valuation Value Rates of Return for Years Ended December 31, 2003 - 2012**



## SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association

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### **Other Experience**

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

- actual turnover among the participants,
- retirement experience (earlier or later than expected),
- mortality (more or fewer deaths than expected),

- the number of disability retirements, and
- salary increases different than assumed.

The net gain from this other experience for the year ended December 31, 2012 amounted to \$80.0 million which is 1.2% of the actuarial accrued liability. See Exhibit H for a detailed development of the Unfunded Actuarial Accrued Liability.



**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

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**D. EMPLOYER AND MEMBER CONTRIBUTIONS**

Employer contributions consist of two components:

*Normal Cost*

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

*Contribution to the Unfunded Actuarial Accrued Liability (UAAL)*

The annual contribution rate that, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution (or rate credit in the case of a negative UAAL) is calculated to remain as a level percentage of future active member payroll (including payroll for new members as they enter the Association) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments (credits) are scheduled to increase at the annual rate of 4.00% (i.e., 3.50% inflation plus 0.50% across-the-board salary increase).

Prior to January 1, 2012, the total UAAL was amortized on a 30-year decreasing period, with 21 years remaining as of December 31, 2011 (and 20 years remaining as of December 31, 2012). On or after January 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 20-year periods; and experience gains/losses are also amortized over separate decreasing 20-year periods.

The recommended employer contributions are provided on Chart 13.

**Member Contributions**

*Non-Tier 4 Members*

Articles 6 and 6.8 of the 1937 Act define the methodology to be used in the calculation of member basic contribution rates for non-Tier 4 General and Safety members, respectively. The basic contribution rate is determined so that the accumulation of a

## SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association

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member's basic contributions made in a given year until a certain age will be sufficient to fund an annuity at that age that is equal to 1/100 of Final Average Salary for General Tier 1, General Tier 3, and all Safety non-Tier 4 members and 1/120 of Final Average Salary for General Tier 2 members. That age is 60 for General Tier 1 and Tier 2, 55 for General Tier 3, and 50 for all Safety non-Tier 4 members. It is assumed that contributions are made annually at the same rate, starting at entry age. In addition to the basic contributions, members pay one-half of the total normal cost necessary to fund cost-of-living benefits. As instructed by ACERA, we have also included a 3% cost-sharing contribution that we understand will be paid by Safety Tier 1 and Tier 2 members even after they attain 30 years of service. For Safety Tier 2C members, there are no cost-sharing contributions. For Safety Tier 2D members, the cost-sharing contribution rate is 5% of salary for the first 5 years of employment and 3% of salary for each subsequent year of employment (even after the member attains 30 years of service).

Accumulation includes semi-annual crediting of interest at the assumed investment earnings rate. Following the procedure established by the Board, basic member rates have been adjusted to anticipate conversion of terminal pay at retirement.

### *Tier 4 Members*

Pursuant to Section 7522.30(a) of the Government Code, Tier 4 members are required to contribute at least 50% of the Normal Cost rate. In addition, there are certain additional requirements that would have to be met such as requiring the employee rates be rounded to the nearest one quarter of one percent and requiring the new employees to pay the contribution rate of "similarly situated employees", if it is greater. (reference: Section 7522.30(c)). We further understand that different rules may have to be applied for collectively bargained employees, non-represented, managerial or other supervisory employees. (reference: section 7522.30(e)). In preparing the Normal Cost rates in this report, we have assumed that exactly 50% of the Normal Cost would be paid by the new members and we have taken into account in this valuation only the requirements of Section 7522.30(c), but not requirements of Section 7522.30(e). We have also compared the total Normal Cost rates between the current and the prior valuations so that a rate increase of less than 1% of payroll would result in no change to the member's rate (reference: Section 7522.30(d)).

The member contribution rates are provided in Appendix A.

**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

**CHART 13**

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

County Only	December 31, 2012						December 31, 2011	
	BASIC		COLA		TOTAL		BASIC AND COLA COMBINED	
	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>
<b>General Tier 1 Members</b>								
Normal Cost	7.72%	\$2,293	2.36%	\$701	10.08%	\$2,994	9.63%	\$2,860
UAAL (Before POB Credit)	12.18%	3,618	3.12%	927	15.30%	4,545	13.48%	4,004
Pension Obligation Bond Credit	-3.52%	-1,046	-1.59%	-472	-5.11%	-1,518	-5.04%	-1,497
Implicit Retiree Health Benefit Subsidy	<u>-0.41%</u>	<u>-122</u>	<u>0.00%</u>	<u>0</u>	<u>-0.41%</u>	<u>-122</u>	<u>-0.31%</u>	<u>-92</u>
Total Contribution	15.97%	\$4,743	3.89%	\$1,156	19.86%	\$5,899	17.76%	\$5,275
<b>General Tier 2 Members</b>								
Normal Cost	7.98%	\$36,471	1.43%	\$6,536	9.41%	\$43,007	8.71%	\$39,808
UAAL (Before POB Credit)	12.18%	55,667	3.12%	14,260	15.30%	69,927	13.48%	61,608
Pension Obligation Bond Credit	-3.52%	-16,088	-1.59%	-7,267	-5.11%	-23,355	-5.04%	-23,035
Implicit Retiree Health Benefit Subsidy	<u>-0.41%</u>	<u>-1,874</u>	<u>0.00%</u>	<u>0</u>	<u>-0.41%</u>	<u>-1,874</u>	<u>-0.31%</u>	<u>-1,417</u>
Total Contribution	16.23%	\$74,176	2.96%	\$13,529	19.19%	\$87,705	16.84%	\$76,964
<b>General Tier 4 Members</b>								
Normal Cost	6.68%	\$0	1.31%	\$0	7.99%	\$0	8.05%	\$0
UAAL (Before POB Credit)	12.18%	0	3.12%	0	15.30%	0	13.48%	0
Pension Obligation Bond Credit	-3.52%	0	-1.59%	0	-5.11%	0	-5.04%	0
Implicit Retiree Health Benefit Subsidy	<u>-0.41%</u>	<u>0</u>	<u>0.00%</u>	<u>0</u>	<u>-0.41%</u>	<u>0</u>	<u>-0.31%</u>	<u>0</u>
Total Contribution	14.93%	\$0	2.84%	\$0	17.77%	\$0	16.18%	\$0

**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

**CHART 13 (continued)**

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

County Only	December 31, 2012				December 31, 2011			
	BASIC		COLA		TOTAL		BASIC AND COLA COMBINED	
	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>
<b>Safety Tier 1 Members</b>								
Normal Cost	23.34%	\$654	8.67%	\$243	32.01%	\$897	30.85%	\$864
Member Cost Sharing Contributions (Adjusted for Refunds)	-3.00%	-84	0.00%	0	-3.00%	-84	-3.00%	-84
UAAL (Before POB Credit)	30.71%	860	7.97%	224	38.68%	1,084	33.26%	932
Pension Obligation Bond Credit	-3.09%	-87	-1.94%	-54	-5.03%	-141	-4.71%	-132
Implicit Retiree Health Benefit Subsidy	<u>-0.41%</u>	<u>-11</u>	<u>0.00%</u>	<u>0</u>	<u>-0.41%</u>	<u>-11</u>	<u>-0.31%</u>	<u>-9</u>
Total Contribution	47.55%	\$1,332	14.70%	\$413	62.25%	\$1,745	56.09%	\$1,571
<b>Safety Tier 2 Members</b>								
Normal Cost	15.71%	\$20,990	2.91%	\$3,888	18.62%	\$24,878	18.29%	\$24,437
Member Cost Sharing Contributions (Adjusted for Refunds)	-2.95%	-3,941	0.00%	0	-2.95%	-3,941	-2.95%	-3,941
UAAL (Before POB Credit)	30.71%	41,031	7.97%	10,649	38.68%	51,680	33.26%	44,438
Pension Obligation Bond Credit	-3.09%	-4,128	-1.94%	-2,592	-5.03%	-6,720	-4.71%	-6,293
Implicit Retiree Health Benefit Subsidy	<u>-0.41%</u>	<u>-548</u>	<u>0.00%</u>	<u>0</u>	<u>-0.41%</u>	<u>-548</u>	<u>-0.31%</u>	<u>-414</u>
Total Contribution	39.97%	\$53,404	8.94%	\$11,945	48.91%	\$65,349	43.58%	\$58,227

**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

**CHART 13 (continued)**

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

County Only	December 31, 2012						December 31, 2011	
	BASIC		COLA		TOTAL		BASIC AND COLA COMBINED	
	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>
<b>Safety Tier 2C Members</b>								
Normal Cost	14.90%	\$313	2.91%	\$61	17.81%	\$374	16.21%	\$341
Member Cost Sharing Contributions (Adjusted for Refunds)	0.00%	0	0.00%	0	0.00%	0	0.00%	0
UAAL (Before POB Credit)	30.71%	645	7.97%	168	38.68%	813	33.26%	699
Pension Obligation Bond Credit	-3.09%	-65	-1.94%	-41	-5.03%	-106	-4.71%	-99
Implicit Retiree Health Benefit Subsidy	<u>-0.41%</u>	<u>-9</u>	<u>0.00%</u>	<u>0</u>	<u>-0.41%</u>	<u>-9</u>	<u>-0.31%</u>	<u>-7</u>
Total Contribution	42.11%	\$884	8.94%	\$188	51.05%	\$1,072	44.45%	\$934
<b>Safety Tier 2D Members</b>								
Normal Cost	14.98%	\$750	2.90%	\$145	17.88%	\$895	18.50%	\$926
Member Cost Sharing Contributions (Adjusted for Refunds)	-4.51%	-226	0.00%	0	-4.51%	-226	-4.72%	-236
UAAL (Before POB Credit)	30.71%	1,537	7.97%	399	38.68%	1,936	33.26%	1,665
Pension Obligation Bond Credit	-3.09%	-155	-1.94%	-97	-5.03%	-252	-4.71%	-236
Implicit Retiree Health Benefit Subsidy	<u>-0.41%</u>	<u>-21</u>	<u>0.00%</u>	<u>0</u>	<u>-0.41%</u>	<u>-21</u>	<u>-0.31%</u>	<u>-16</u>
Total Contribution	37.68%	\$1,885	8.93%	\$447	46.61%	\$2,332	42.02%	\$2,103

**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

**CHART 13 (continued)**

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

County Only	December 31, 2012						December 31, 2011	
	BASIC		COLA		TOTAL		BASIC AND COLA COMBINED	
	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>
<b>Safety Tier 4 Members</b>								
Normal Cost	11.37%	\$0	2.66%	\$0	14.03%	\$0	13.65%	\$0
Member Cost Sharing Contributions (Adjusted for Refunds)	0.00%	0	0.00%	0	0.00%	0	0.00%	0
UAAL (Before POB Credit)	30.71%	0	7.97%	0	38.68%	0	33.26%	0
Pension Obligation Bond Credit	-3.09%	0	-1.94%	0	-5.03%	0	-4.71%	0
Implicit Retiree Health Benefit Subsidy	<u>-0.41%</u>	<u>0</u>	<u>0.00%</u>	<u>0</u>	<u>-0.41%</u>	<u>0</u>	<u>-0.31%</u>	<u>0</u>
Total Contribution	38.58%	\$0	8.69%	\$0	47.27%	\$0	41.89%	\$0
<b>All County Categories Combined</b>								
Normal Cost	9.75%	\$61,471	1.84%	\$11,574	11.59%	\$73,045	10.99%	\$69,236
Member Cost Sharing Contributions (Adjusted for Refunds)	-0.67%	-4,251	0.00%	0	-0.67%	-4,251	-0.68%	-4,261
UAAL (Before POB Credit)	16.40%	103,358	4.22%	26,627	20.62%	129,985	17.98%	113,346
Pension Obligation Bond Credit	-3.42%	-21,569	-1.67%	-10,523	-5.09%	-32,092	-4.96%	-31,292
Implicit Retiree Health Benefit Subsidy	<u>-0.41%</u>	<u>-2,585</u>	<u>0.00%</u>	<u>0</u>	<u>-0.41%</u>	<u>-2,585</u>	<u>-0.31%</u>	<u>-1,955</u>
Total Contribution	21.65%	\$136,424	4.39%	\$27,678	26.04%	\$164,102	23.02%	\$145,074

**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

**CHART 13 (continued)**

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

ACMC, Court & First 5 Only	December 31, 2012						December 31, 2011	
	BASIC		COLA		TOTAL		BASIC AND COLA COMBINED	
	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>
<b>General Tier 1 Members</b>								
Normal Cost	7.72%	\$785	2.36%	\$240	10.08%	\$1,025	9.63%	\$979
UAAL (Before POB Credit)	12.18%	1,239	3.12%	317	15.30%	1,556	13.48%	1,371
Pension Obligation Bond Credit	<u>-3.52%</u>	<u>-358</u>	<u>-1.59%</u>	<u>-162</u>	<u>-5.11%</u>	<u>-520</u>	<u>-5.04%</u>	<u>-513</u>
Total Contribution	16.38%	\$1,666	3.89%	\$395	20.27%	\$2,061	18.07%	\$1,837
<b>General Tier 2 Members</b>								
Normal Cost	7.98%	\$20,526	1.43%	\$3,678	9.41%	\$24,204	8.71%	\$22,404
UAAL (Before POB Credit)	12.18%	31,329	3.12%	8,025	15.30%	39,354	13.48%	34,673
Pension Obligation Bond Credit	<u>-3.52%</u>	<u>-9,054</u>	<u>-1.59%</u>	<u>-4,090</u>	<u>-5.11%</u>	<u>-13,144</u>	<u>-5.04%</u>	<u>-12,964</u>
Total Contribution	16.64%	\$42,801	2.96%	\$7,613	19.60%	\$50,414	17.15%	\$44,113
<b>General Tier 4 Members</b>								
Normal Cost	6.68%	\$0	1.31%	\$0	7.99%	\$0	8.05%	\$0
UAAL (Before POB Credit)	12.18%	0	3.12%	0	15.30%	0	13.48%	0
Pension Obligation Bond Credit	<u>-3.52%</u>	<u>0</u>	<u>-1.59%</u>	<u>0</u>	<u>-5.11%</u>	<u>0</u>	<u>-5.04%</u>	<u>0</u>
Total Contribution	15.34%	\$0	2.84%	\$0	18.18%	\$0	16.49%	\$0

**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

**CHART 13 (continued)**

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

Other Districts	December 31, 2012						December 31, 2011	
	BASIC		COLA		TOTAL		BASIC AND COLA COMBINED	
	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>
<b>General Tier 1 Members</b>								
Normal Cost	7.72%	\$407	2.36%	\$124	10.08%	\$531	9.63%	\$507
UAAL	<u>12.18%</u>	<u>642</u>	<u>3.12%</u>	<u>164</u>	<u>15.30%</u>	<u>806</u>	<u>13.48%</u>	<u>710</u>
Total Contribution	19.90%	\$1,049	5.48%	\$288	25.38%	\$1,337	23.11%	\$1,217
<b>General Tier 2 Members</b>								
Normal Cost	7.98%	\$20	1.43%	\$4	9.41%	\$24	8.71%	\$22
UAAL	<u>12.18%</u>	<u>31</u>	<u>3.12%</u>	<u>8</u>	<u>15.30%</u>	<u>39</u>	<u>13.48%</u>	<u>34</u>
Total Contribution	20.16%	\$51	4.55%	\$12	24.71%	\$63	22.19%	\$56
<b>General Tier 3 Members</b>								
Normal Cost	11.18%	\$373	3.69%	\$123	14.87%	\$496	14.12%	\$471
UAAL	<u>12.53%</u>	<u>418</u>	<u>3.54%</u>	<u>118</u>	<u>16.07%</u>	<u>536</u>	<u>15.03%</u>	<u>501</u>
Total Contribution	23.71%	\$791	7.23%	\$241	30.94%	\$1,032	29.15%	\$972
<b>General Tier 4 Members (Housing Authority, Office of Education)</b>								
Normal Cost	6.68%	\$0	1.31%	\$0	7.99%	\$0	8.05%	\$0
UAAL	<u>12.18%</u>	<u>0</u>	<u>3.12%</u>	<u>0</u>	<u>15.30%</u>	<u>0</u>	<u>13.48%</u>	<u>0</u>
Total Contribution	18.86%	\$0	4.43%	\$0	23.29%	\$0	21.53%	\$0



**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

**CHART 13 (continued)**

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

Other Districts	December 31, 2012						December 31, 2011	
	BASIC		COLA		TOTAL		BASIC AND COLA COMBINED	
	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>	<u>Rate</u>	<u>Estimated Annual Amount*</u>
<b>General Tier 4 Members (LARPD Only)</b>								
Normal Cost	6.68%	\$0	1.31%	\$0	7.99%	\$0	8.05%	\$0
UAAL	<u>12.53%</u>	<u>0</u>	<u>3.54%</u>	<u>0</u>	<u>16.07%</u>	<u>0</u>	<u>15.03%</u>	<u>0</u>
Total Contribution	19.21%	\$0	4.85%	\$0	24.06%	\$0	23.08%	\$0
<b>All Categories Combined</b>								
<b>All Categories Combined</b>								
Normal Cost (Net)	8.75%	\$79,331	1.74%	\$15,743	10.49%	\$95,074	9.86%	\$89,358
UAAL (Net)	<u>11.41%</u>	<u>103,451</u>	<u>2.26%</u>	<u>20,484</u>	<u>13.67%</u>	<u>123,935</u>	<u>11.46%</u>	<u>103,911</u>
Total Contribution	20.16%	\$182,782	4.00%	\$36,227	24.16%	\$219,009	21.32%	\$193,269

\* Amounts are in thousands and are based on the December 31, 2012 annual payroll (also in thousands) shown on the following page.

**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

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**CHART 13 (continued)**

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

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**Payroll Breakdown**

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	<u>County Only</u>	<u>ACMC, Court &amp; First 5</u>	<u>Other Districts</u>	<u>Total</u>
General Tier 1	\$29,703	\$10,170	\$5,269	\$45,142
General Tier 2	457,036	257,217	253	714,506
General Tier 3			3,335	3,335
General Tier 4				0
Safety Tier 1	2,802			2,802
Safety Tier 2	133,608			133,608
Safety Tier 2C	2,101			2,101
Safety Tier 2D	5,006			5,006
Safety Tier 4				0
Total	\$630,256	\$267,387	\$8,857	\$906,500

**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

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**CHART 14**

**Breakdown of Employer Contribution Rate by Types of Benefit (For information purposes only)**

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A breakdown of the approximate portion of the employer contribution rate by the various types of benefit is as follows:

	<b>General</b>	<b>Safety</b>
Service and non-service connected disability benefits	11%	20%
Service retirement and other benefits	<u>89%</u>	<u>80%</u>
	100%	100%

*Note: In developing these percentages, we made the simplifying assumption that the liability for active and inactive members (including members who have already retired) can be approximated by the proportion of the normal cost required to fund disability and non-disability benefits.*

## SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association

The employer contribution rates as of December 31, 2012 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

### Reconciliation of Recommended Employer Contribution

The chart below details the changes in the recommended employer contribution from the prior valuation to the current year's valuation.

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

#### CHART 15

#### Reconciliation of Recommended Employer Contribution from December 31, 2011 to December 31, 2012 (Dollars in Thousands)

	Contribution Rate	Estimated Amount*
Recommended Contribution Rate as of December 31, 2011	21.32%	\$193,269
Effect of actuarial experience during 2012		
1. Effect of investment loss	2.38%	\$21,575
2. Effect of lower than expected salary increases for actives	-0.73	-6,617
3. Effect of amortizing prior year's UAAL over a smaller than expected projected total payroll	0.40	3,626
4. Effect of other experience (gain)/loss (including scheduled delay in implementing contribution rates after date of valuation)	0.14	1,264
5. Effect of change to individual Entry Age Normal method	0.65	5,892
Subtotal	2.84%	\$25,740
Recommended Contribution Rate as of December 31, 2012	24.16%	\$219,009

\* Based on December 31, 2012 projected compensation.

**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

The member contribution rates as of December 31, 2012 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

**Reconciliation of Recommended Member Contribution Rate**

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

**CHART 16**  
**Reconciliation of Recommended Member Contribution from December 31, 2011 to December 31, 2012**  
**(Dollar Amounts in Thousands)**

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

	Contribution Rate	Estimated Amount*
Average Contribution Rate as of December 31, 2011	8.27%	\$74,963
1. Effect of change in membership demographics	0.00%	-4
2. Effect of change to individual Entry Age Normal method	0.33%	2,983
Average Contribution Rate as of December 31, 2012	8.60%	\$77,942

\* Based on December 31, 2012 projected compensation.

## SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association

### E. INFORMATION REQUIRED BY GASB

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

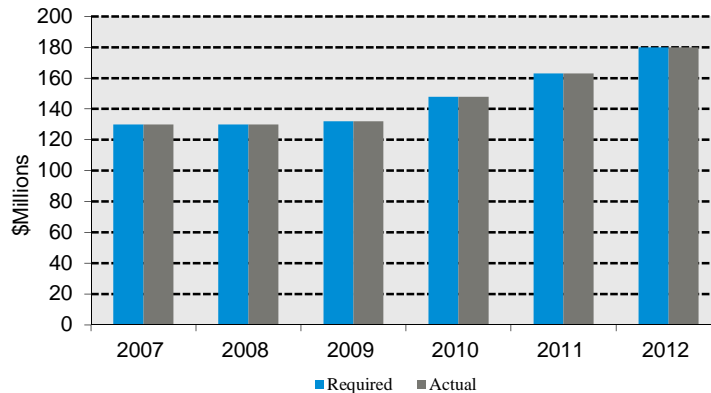
Critical information to the GASB is the historical comparison of the GASB required contributions to the actual contributions. This comparison demonstrates whether a plan is being funded on an actuarially sound basis and in accordance with GASB funding requirements. Chart 17 below presents a graphical representation of this information for the Plan.

The other critical piece of information regarding the Plan's financial status is the funded ratio. This ratio compares the valuation value of assets to the actuarial accrued liabilities of the plan as calculated under the GASB. High ratios indicate a well-funded plan with assets sufficient to pay most benefits. Lower ratios may indicate recent changes to benefit structures, funding of the plan below actuarial requirements, poor asset performance, or a variety of other changes. The funded ratio as of December 31, 2011 was 76.6%. This year's funded ratio decreased to 73.9%.

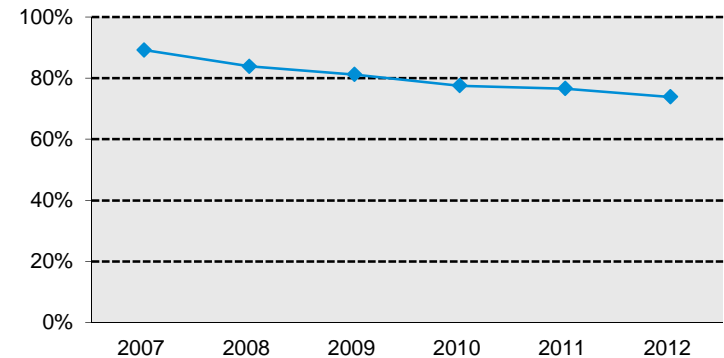
The details regarding the calculations of these values and other GASB numbers may be found in Section 4, Exhibits II, III, and IV.

*These graphs show key GASB factors.*

**CHART 17**  
**Required Versus Actual Contributions**



**CHART 18**  
**Funded Ratio**



**SECTION 2: Valuation Results for the Alameda County Employees' Retirement Association**

**F. VOLATILITY RATIOS**

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

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

For ACERA, the current AVR is about 5.5. This means that a 1% asset gain/(loss) (relative to the assumed investment return) translates to about 5.5% of one-year's payroll. Since ACERA amortizes actuarial gains and losses over a 20-year period, there would be a 0.4% of payroll decrease/(increase) in the required contribution for each 1% asset gain/(loss).

The Liability Volatility Ratio (LVR), which is equal to the Actuarial Accrued Liability divided by payroll, provides an indication of the longer-term potential for contribution volatility for any given level of investment volatility. This is because, over an extended period of time, the plan's assets should track the plan's liabilities. For example, if a plan is 50% funded on a market value basis, the liability volatility ratio would be double the asset volatility ratio and the plan sponsor should expect contribution volatility to increase over time as the plan becomes better funded.

The LVR also indicates how volatile contributions will be in response to changes in the Actuarial Accrued Liability due to actual experience or to changes in actuarial assumptions.

For ACERA, the current LVR is about 7.3. This is about 33% higher than the AVR. Therefore, we would expect that contribution volatility will increase over the long-term.

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

**CHART 19**  
**Volatility Ratios for Years Ended December 31, 2008 – 2012**

Year Ended December 31	Asset Volatility Ratio	Liability Volatility Ratio
2008	3.6	6.4
2009	4.5	6.7
2010	5.0	6.9
2011	4.9	7.1
2012	5.5	7.3

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

**EXHIBIT A**

**Table of Plan Coverage**

**i. General Tier 1**

<b>Category</b>	<b>Year Ended December 31</b>		<b>Change From Prior Year</b>
	<b>2012</b>	<b>2011</b>	
<b>Active members in valuation</b>			
Number	519	607	-14.5%
Average age	57.8	57.3	N/A
Average service	28.0	27.6	N/A
Projected total compensation	\$45,141,829	\$53,130,746	-15.0%
Projected average compensation	\$86,978	\$87,530	-0.6%
Member account balances	\$151,537,558	\$178,694,839	-15.2%
Total active vested members	497	580	-14.3%
<b>Vested terminated members</b>			
Number	119	130	-8.5%
Average age	58.3	57.5	N/A
<b>Retired members</b>			
Number in pay status	3,551	3,588	-1.0%
Average age	74.3	74.0	N/A
Average monthly benefit <sup>(1)</sup>	\$3,728	\$3,518	6.0%
<b>Disabled members</b>			
Number in pay status	198	206	-3.9%
Average age	70.3	69.5	N/A
Average monthly benefit <sup>(1)</sup>	\$2,591	\$2,510	3.2%
<b>Beneficiaries</b>			
Number in pay status	775	771	0.5%
Average age	78.4	78.1	N/A
Average monthly benefit <sup>(1)</sup>	\$1,682	\$1,582	6.3%

<sup>(1)</sup> Excludes supplemental benefits paid from SRBR.

Note: Based on the data provided for the December 31, 2012 actuarial valuation, the average age at retirement for the General Tier 1 service retirees and disabled retirees was 59.1 and 52.2, respectively.



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

**EXHIBIT A**

**Table of Plan Coverage**

**ii. General Tier 2**

<b>Category</b>	<b>Year Ended December 31</b>		<b>Change From Prior Year</b>
	<b>2012</b>	<b>2011</b>	
<b>Active members in valuation</b>			
Number	8,822	8,627	2.3%
Average age	47.8	47.8	N/A
Average service	10.9	10.7	N/A
Projected total compensation	\$714,505,925	\$689,056,879	3.7%
Projected average compensation	\$80,991	\$79,872	1.4%
Member account balances	\$567,702,843	\$554,064,537	2.5%
Total active vested members	6,408	6,182	3.7%
<b>Vested terminated members</b>			
Number	1,549	1,502	3.1%
Average age	48.4	48.0	N/A
<b>Retired members</b>			
Number in pay status	1,683	1,460	15.3%
Average age	67.5	67.1	N/A
Average monthly benefit <sup>(1)</sup>	\$2,042	\$1,912	6.8%
<b>Disabled members</b>			
Number in pay status	399	392	1.8%
Average age	60.6	59.8	N/A
Average monthly benefit <sup>(1)</sup>	\$2,145	\$2,068	3.7%
<b>Beneficiaries</b>			
Number in pay status	139	127	9.4%
Average age	60.8	59.7	N/A
Average monthly benefit <sup>(1)</sup>	\$1,140	\$1,101	3.5%

<sup>(1)</sup> Excludes supplemental benefits paid from SRBR.

Note: Based on the data provided for the December 31, 2012 actuarial valuation, the average age at retirement for the General Tier 2 service retirees and disabled retirees was 61.7 and 50.3, respectively.

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

**EXHIBIT A**

**Table of Plan Coverage**

**iii. General Tier 3**

<b>Category</b>	<b>Year Ended December 31</b>		<b>Change From Prior Year</b>
	<b>2012</b>	<b>2011</b>	
<b>Active members in valuation</b>			
Number	51	49	4.1%
Average age	50.3	49.9	N/A
Average service	11.4	11.0	N/A
Projected total compensation	\$3,335,457	\$3,256,851	2.4%
Projected average compensation	\$65,401	\$66,466	-1.6%
Member account balances	\$5,048,746	\$4,664,633	8.2%
Total active vested members	39	34	14.7%
<b>Vested terminated members</b>			
Number	7	6	16.7%
Average age	48.1	44.9	N/A
<b>Retired members</b>			
Number in pay status	10	10	0.0%
Average age	61.8	60.8	N/A
Average monthly benefit <sup>(1)</sup>	\$5,262	\$5,109	3.0%
<b>Disabled members</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit <sup>(1)</sup>	N/A	N/A	N/A
<b>Beneficiaries</b>			
Number in pay status	1	0	N/A
Average age	49.8	N/A	N/A
Average monthly benefit <sup>(1)</sup>	\$480	N/A	N/A

<sup>(1)</sup> Excludes supplemental benefits paid from SRBR.

Note: Based on the data provided for the December 31, 2012 actuarial valuation, the average age at retirement for the General Tier 3 service retirees was 59.2.

For all the General Tiers combined, the average age at retirement for the service retirees and disabled retirees was 60.0 and 50.9, respectively.

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

**EXHIBIT A**

**Table of Plan Coverage**

**iv. Safety Tier 1**

<b>Category</b>	<b>Year Ended December 31</b>		<b>Change From Prior Year</b>
	<b>2012</b>	<b>2011</b>	
<b>Active members in valuation</b>			
Number	19	26	-26.9%
Average age	57.4	56.1	N/A
Average service	25.7	25.5	N/A
Projected total compensation	\$2,802,496	\$3,682,417	-23.9%
Projected average compensation	\$147,500	\$141,631	4.1%
Member account balances	\$9,180,615	\$12,256,302	-25.1%
Total active vested members	19	26	-26.9%
<b>Vested terminated members</b>			
Number	21	21	0.0%
Average age	54.2	53.5	N/A
<b>Retired members</b>			
Number in pay status	680	685	-0.7%
Average age	67.6	66.8	N/A
Average monthly benefit <sup>(1)</sup>	\$6,881	\$6,628	3.8%
<b>Disabled members</b>			
Number in pay status	108	108	0.0%
Average age	65.4	64.5	N/A
Average monthly benefit <sup>(1)</sup>	\$4,825	\$4,742	1.8%
<b>Beneficiaries</b>			
Number in pay status	162	153	5.9%
Average age	71.4	71.2	N/A
Average monthly benefit <sup>(1)</sup>	\$2,614	\$2,496	4.7%

<sup>(1)</sup> Excludes supplemental benefits paid from SRBR.

Note: Based on the data provided for the December 31, 2012 actuarial valuation, the average age at retirement for the Safety Tier 1 service retirees and disabled retirees was 54.9 and 48.5, respectively.

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

**EXHIBIT A**

**Table of Plan Coverage  
v. Safety Tier 2**

Category	Year Ended December 31		Change From Prior Year
	2012	2011	
<b>Active members in valuation</b>			
Number	1,298	1,372	-5.4%
Average age	42.9	42.3	N/A
Average service	12.0	11.4	N/A
Projected total compensation	\$133,608,428	\$139,780,270	-4.4%
Projected average compensation	\$102,934	\$101,881	1.0%
Member account balances	\$195,802,631	\$193,458,419	1.2%
Total active vested members	1,187	1,089	9.0%
<b>Vested terminated members</b>			
Number	138	137	0.7%
Average age	44.5	44.4	N/A
<b>Retired members</b>			
Number in pay status	310	257	20.6%
Average age	60.6	60.6	N/A
Average monthly benefit <sup>(1)</sup>	\$5,073	\$4,703	7.9%
<b>Disabled members</b>			
Number in pay status	114	105	8.6%
Average age	55.5	55.5	N/A
Average monthly benefit <sup>(1)</sup>	\$3,486	\$3,277	6.4%
<b>Beneficiaries</b>			
Number in pay status	45	44	2.3%
Average age	54.3	51.7	N/A
Average monthly benefit <sup>(1)</sup>	\$1,942	\$1,884	3.1%

<sup>(1)</sup> Excludes supplemental benefits paid from SRBR.

Note: Based on the data provided for the December 31, 2012 actuarial valuation, the average age at retirement for the Safety Tier 2 service retirees and disabled retirees was 56.2 and 46.2, respectively.

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

**EXHIBIT A**

**Table of Plan Coverage**

**vi. Safety Tier 2C**

<b>Category</b>	<b>Year Ended December 31</b>		<b>Change From Prior Year</b>
	<b>2012</b>	<b>2011</b>	
<b>Active members in valuation</b>			
Number	24	18	33.3%
Average age	38.3	38.1	N/A
Average service	1.8	1.7	N/A
Projected total compensation	\$2,101,116	\$1,496,012	40.4%
Projected average compensation	\$87,547	\$83,112	5.3%
Member account balances	\$326,012	\$175,771	85.5%
Total active vested members	1	2	-50.0%
<b>Vested terminated members</b>			
Number	1	0	N/A
Average age	33.4	N/A	N/A
<b>Retired members</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit <sup>(1)</sup>	N/A	N/A	N/A
<b>Disabled members</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit <sup>(1)</sup>	N/A	N/A	N/A
<b>Beneficiaries</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit <sup>(1)</sup>	N/A	N/A	N/A

<sup>(1)</sup> Excludes supplemental benefits paid from SRBR.

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

**EXHIBIT A**

**Table of Plan Coverage**

**vii. Safety Tier 2D**

<b>Category</b>	<b>Year Ended December 31</b>		<b>Change From Prior Year</b>
	<b>2012</b>	<b>2011</b>	
<b>Active members in valuation</b>			
Number	67	25	168.0%
Average age	33.2	35.8	N/A
Average service	2.3	1.9	N/A
Projected total compensation	\$5,005,970	\$2,085,926	140.0%
Projected average compensation	\$74,716	\$83,437	-10.5%
Member account balances	\$1,051,056	\$303,688	246.1%
Total active vested members	11	2	450.0%
<b>Vested terminated members</b>			
Number	0	0	N/A
Average age	N/A	N/A	N/A
<b>Retired members</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit <sup>(1)</sup>	N/A	N/A	N/A
<b>Disabled members</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit <sup>(1)</sup>	N/A	N/A	N/A
<b>Beneficiaries</b>			
Number in pay status	0	0	N/A
Average age	N/A	N/A	N/A
Average monthly benefit <sup>(1)</sup>	N/A	N/A	N/A

<sup>(1)</sup> Excludes supplemental benefits paid from SRBR.

Note: For all the Safety Tiers combined, the average age at retirement for the service retirees and disabled retirees was 55.3 and 47.3, respectively.

For all the General and Safety Tiers combined, the average age at retirement for the service retirees and disabled retirees was 59.2 and 50.0, respectively.

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

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation  
By Age, Years of Service as of December 31, 2012**

**i. General Tier 1**

Age	Total	Years of Service								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	--	--	--	--	--	--	--	--	--	--
25 - 29	2	2	--	--	--	--	--	--	--	--
	\$52,664	\$52,664	--	--	--	--	--	--	--	--
30 - 34	5	3	2	--	--	--	--	--	--	--
	64,235	64,378	\$64,021	--	--	--	--	--	--	--
35 - 39	6	5	1	--	--	--	--	--	--	--
	62,967	61,830	68,653	--	--	--	--	--	--	--
40 - 44	7	2	4	1	--	--	--	--	--	--
	70,216	53,211	72,652	\$94,481	--	--	--	--	--	--
45 - 49	19	2	6	2	2	--	5	2	--	--
	66,540	58,787	65,730	61,097	\$59,590	--	\$66,179	\$90,014	--	--
50 - 54	71	2	2	2	5	7	12	41	--	--
	79,214	78,482	64,319	69,148	75,041	\$83,530	86,998	77,961	--	--
55 - 59	234	3	6	2	8	20	52	110	29	4
	86,679	57,673	90,820	69,213	84,871	80,534	92,775	87,845	\$82,473	\$64,459
60 - 64	134	2	4	2	8	8	26	53	24	7
	94,309	60,059	83,546	57,882	79,666	88,844	106,147	95,595	97,737	78,182
65 - 69	32	1	4	2	2	--	4	7	7	5
	105,500	114,486	87,775	123,875	110,579	--	97,405	92,201	96,176	146,651
70 & over	9	--	--	--	--	--	--	3	--	6
	73,482	--	--	--	--	--	--	53,474	--	83,487
<b>Total</b>	<b>519</b>	<b>22</b>	<b>29</b>	<b>11</b>	<b>25</b>	<b>35</b>	<b>99</b>	<b>216</b>	<b>60</b>	<b>22</b>
	<b>\$86,978</b>	<b>\$63,463</b>	<b>\$77,260</b>	<b>\$77,901</b>	<b>\$81,274</b>	<b>\$83,032</b>	<b>\$94,430</b>	<b>\$87,554</b>	<b>\$90,178</b>	<b>\$92,695</b>

*Note: Age and years of service were projected from November 30, 2012 to December 31, 2012.*

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

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation  
By Age, Years of Service as of December 31, 2012**

**ii. General Tier 2**

Age	Total	Years of Service							
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & over
Under 25	48	45	3	--	--	--	--	--	--
	\$49,770	\$50,058	\$45,446	--	--	--	--	--	--
25 - 29	420	346	74	--	--	--	--	--	--
	61,798	61,642	62,523	--	--	--	--	--	--
30 - 34	857	494	293	70	--	--	--	--	--
	71,523	71,230	73,571	\$65,018	--	--	--	--	--
35 - 39	1,000	387	314	277	22	--	--	--	--
	78,892	78,403	84,618	74,033	\$66,930	--	--	--	--
40 - 44	1,227	318	315	418	133	42	1	--	--
	81,901	82,492	81,643	81,963	86,162	\$66,028	\$49,524	--	--
45 - 49	1,290	274	261	335	191	181	48	--	--
	83,024	82,911	86,660	80,330	87,015	80,493	76,363	--	--
50 - 54	1,429	239	238	369	170	271	142	--	--
	84,807	91,312	81,145	79,874	83,133	87,193	90,261	--	--
55 - 59	1,281	193	194	312	166	259	152	4	1
	86,201	93,689	84,027	81,537	86,291	85,616	89,647	\$104,633	\$57,509
60 - 64	892	93	162	247	118	170	93	8	1
	85,326	89,185	79,327	80,283	85,332	86,957	100,287	108,500	89,244
65 - 69	307	28	64	90	53	53	17	2	--
	82,547	86,188	86,959	76,340	81,772	82,291	88,619	145,424	--
70 & over	71	10	11	22	11	13	4	--	--
	74,880	92,631	65,975	69,437	77,529	76,722	71,648	--	--
Total	8,822	2,427	1,929	2,140	864	989	457	14	2
	\$80,991	\$78,121	\$80,861	\$79,145	\$84,797	\$84,214	\$90,324	\$112,670	\$73,377

*Note: Age and years of service were projected from November 30, 2012 to December 31, 2012.*



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

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation  
By Age, Years of Service as of December 31, 2012**

**iii. General Tier 3**

Age	Years of Service							
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over
Under 25	--	--	--	--	--	--	--	--
25 - 29	--	--	--	--	--	--	--	--
30 - 34	4	1	3	--	--	--	--	--
35 - 39	\$55,204	\$47,134	\$57,894	--	--	--	--	--
40 - 44	3	2	--	1	--	--	--	--
45 - 49	48,125	45,320	--	\$53,735	--	--	--	--
50 - 54	6	1	3	1	1	--	--	--
55 - 59	60,528	40,430	65,510	65,534	\$60,676	--	--	--
60 - 64	10	2	4	1	1	2	--	--
65 - 69	63,793	62,542	65,502	51,749	59,622	\$69,733	--	--
70 & over	10	1	1	3	3	1	1	--
Total	66,266	69,790	88,658	61,449	64,881	62,609	\$62,609	--
	14	4	3	3	2	--	2	--
	72,820	68,604	101,325	58,471	63,105	--	69,733	--
	4	1	--	1	--	--	1	1
	71,758	91,502	--	63,796	--	--	54,877	\$76,856
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
Total	51	12	14	10	7	3	4	1
	\$65,401	\$61,583	\$73,204	\$59,457	\$63,022	\$67,358	\$64,238	\$76,856

*Note: Age and years of service were projected from November 30, 2012 to December 31, 2012.*

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

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation  
By Age, Years of Service as of December 31, 2012**

**iv. Safety Tier 1**

Age	Total	Years of Service									
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over	
Under 25	--	--	--	--	--	--	--	--	--	--	--
25 - 29	--	--	--	--	--	--	--	--	--	--	--
30 - 34	--	--	--	--	--	--	--	--	--	--	--
35 - 39	--	--	--	--	--	--	--	--	--	--	--
40 - 44	--	--	--	--	--	--	--	--	--	--	--
45 - 49	--	--	--	--	--	--	--	--	--	--	--
50 - 54	9	--	--	--	--	3	3	3	--	--	--
	\$164,419	--	--	--	--	\$163,988	\$164,756	\$164,514	--	--	--
55 - 59	6	--	3	--	--	1	1	1	--	--	--
	158,457	--	\$152,912	--	--	98,772	89,457	303,775	--	--	--
60 - 64	2	--	--	--	--	1	--	1	--	--	--
	99,335	--	--	--	--	100,512	--	98,158	--	--	--
65 - 69	1	--	--	--	--	--	1	--	--	--	--
	94,015	--	--	--	--	--	94,015	--	--	--	--
70 & over	1	--	--	--	--	--	--	--	--	--	1
	79,297	--	--	--	--	--	--	--	--	--	\$79,297
Total	19	--	3	--	--	5	5	5	--	--	1
	\$147,500	--	\$152,912	--	--	\$138,249	\$135,548	\$179,095	--	--	\$79,297

*Note: Age and years of service were projected from November 30, 2012 to December 31, 2012.*

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

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation  
By Age, Years of Service as of December 31, 2012**

**v. Safety Tier 2**

Age	Years of Service							
	Total	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over
Under 25	--	--	--	--	--	--	--	--
25 - 29	71	21	50	--	--	--	--	--
	\$96,724	\$91,236	\$99,029	--	--	--	--	--
30 - 34	183	29	128	26	--	--	--	--
	99,051	84,119	99,874	\$111,650	--	--	--	--
35 - 39	263	18	97	130	18	--	--	--
	100,932	87,032	96,612	103,766	\$117,645	--	--	--
40 - 44	279	16	71	119	66	7	--	--
	101,250	85,325	97,499	98,977	111,206	\$120,466	--	--
45 - 49	251	11	27	86	51	50	26	--
	107,190	91,777	99,569	99,813	110,359	110,970	\$132,538	--
50 - 54	138	11	17	32	20	28	29	1
	108,216	119,135	96,277	100,085	104,938	114,812	115,944	\$108,010
55 - 59	66	4	19	11	11	14	6	1
	103,786	125,003	106,989	104,539	93,610	110,607	84,315	83,056
60 - 64	30	1	7	11	6	4	1	--
	109,619	71,002	105,879	105,881	118,899	82,509	268,296	--
65 - 69	16	--	3	4	4	3	1	1
	109,660	--	118,279	125,570	106,109	103,161	89,457	74,065
70 & over	1	--	--	1	--	--	--	--
	89,457	--	--	89,457	--	--	--	--
Total	1,298	111	419	420	176	106	63	3
	\$102,934	\$91,696	\$99,005	\$102,056	\$109,953	\$111,269	\$121,778	\$88,377

*Note: Age and years of service were projected from November 30, 2012 to December 31, 2012.*

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

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation  
By Age, Years of Service as of December 31, 2012**

**vi. Safety Tier 2C**

Age	Total	Years of Service						
		0-4	5-9	10-14	15-19	20-24	25-29	30 & Over
Under 25	2	2	--	--	--	--	--	--
	\$65,052	\$65,052	--	--	--	--	--	--
25 - 29	4	4	--	--	--	--	--	--
	85,732	85,732	--	--	--	--	--	--
30 - 34	4	3	1	--	--	--	--	--
	65,222	65,678	\$63,856	--	--	--	--	--
35 - 39	5	5	--	--	--	--	--	--
	102,732	102,732	--	--	--	--	--	--
40 - 44	2	2	--	--	--	--	--	--
	72,604	72,604	--	--	--	--	--	--
45 - 49	3	3	--	--	--	--	--	--
	77,690	77,690	--	--	--	--	--	--
50 - 54	3	3	--	--	--	--	--	--
	114,885	114,885	--	--	--	--	--	--
55 - 59	1	1	--	--	--	--	--	--
	130,610	130,610	--	--	--	--	--	--
60 - 64	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
65 - 69	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
70 & over	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--
Total	24	23	1	--	--	--	--	--
	\$87,547	\$88,577	\$63,856	--	--	--	--	--

*Note: Age and years of service were projected from November 30, 2012 to December 31, 2012.*

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

**EXHIBIT B**

**Members in Active Service and Projected Average Compensation  
By Age, Years of Service as of December 31, 2012**

**vii. Safety Tier 2D**

Age	Total	Years of Service						
		0-4	5-9	10-14	15-19	20-24	25-29	30 & Over
Under 25	11	11	--	--	--	--	--	--
	\$66,604	\$66,604	--	--	--	--	--	--
25 - 29	24	22	2	--	--	--	--	--
	70,326	69,542	\$78,951	--	--	--	--	--
30 - 34	11	8	3	--	--	--	--	--
	70,825	68,277	77,619	--	--	--	--	--
35 - 39	6	6	--	--	--	--	--	--
	99,240	99,240	--	--	--	--	--	--
40 - 44	5	2	2	1	--	--	--	--
	66,553	69,572	63,497	\$66,624	--	--	--	--
45 - 49	3	1	1	--	--	1	--	--
	72,167	78,668	64,824	--	--	\$73,008	--	--
50 - 54	6	5	--	1	--	--	--	--
	92,750	98,321	--	64,898	--	--	--	--
55 - 59	1	1	--	--	--	--	--	--
	105,227	105,227	--	--	--	--	--	--
60 - 64	--	--	--	--	--	--	--	--
65 - 69	--	--	--	--	--	--	--	--
70 & over	--	--	--	--	--	--	--	--
Total	67	56	8	2	--	1	--	--
	\$74,716	\$75,337	\$72,822	\$65,761	--	\$73,008	--	--

*Note: Age and years of service were projected from November 30, 2012 to December 31, 2012.*

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

**EXHIBIT C**

**Reconciliation of Member Data – December 31, 2011 to December 31, 2012**

	<b>Active Members</b>	<b>Vested Terminated Members</b>	<b>Pensioners</b>	<b>Disableds</b>	<b>Beneficiaries</b>	<b>Total</b>
Number as of December 31, 2011	10,724	1,796	6,000	811	1,095	20,426
New members	727	0	0	0	85	812
Terminations – with vested rights	-164	164	0	0	0	0
Contributions refunds	-125	-72	0	0	0	-197
Retirements	-348	-59	407	0	0	0
New disabilities	-13	-2	-9	24	0	0
Return to work	18	-18	0	0	0	0
Died with or without beneficiary	-19	-5	-166	-18	-49	-257
Data adjustments	0	31*	2	2	-9	26
Number as of December 31, 2012	10,800	1,835	6,234	819	1,122	20,810

\* Out of the 31 data adjustments, 13 were for members who were hired and terminated employment during 2012.

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

**EXHIBIT D**

**Summary Statement of Income and Expenses on an Actuarial Value Basis**

	Year Ended December 31,	
	2012	2011
<b>Contribution income:</b>		
Employer contributions	\$179,648,812	\$162,879,221
Employee contributions	<u>78,608,004</u>	<u>77,990,907</u>
Contribution income	\$258,256,815	\$240,870,127
<b>Investment income:</b>		
Interest, dividends and other income	\$129,827,102	\$144,398,762
Adjustment toward market value	7,952,766	63,206,800
Less investment and administrative fees	<u>-45,842,888</u>	<u>-42,934,516</u>
Net investment income	<u>\$91,936,980</u>	<u>\$164,671,046</u>
<b>Total income available for benefits</b>	<b>\$350,193,795</b>	<b>\$405,541,173</b>
<b>Less benefit payments:</b>		
Service retirement	-\$318,993,372	-\$294,365,140
Death payments	-3,208,633	-3,274,952
Supplemental cost of living	-2,345,527	-2,556,221
Members refunds	-5,893,555	-5,405,834
Health insurance subsidies	<u>-32,692,271</u>	<u>-31,554,513</u>
Benefit payments	-\$363,133,358	-\$337,156,660
<b>Change in reserve for future benefits</b>	<b>-\$12,939,563</b>	<b>\$68,384,513</b>

*Note: Results may not total properly due to rounding.*

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

**EXHIBIT E**

**Summary Statement of Assets**

ASSETS	Year Ended December 31,	
	2012	2011
Cash	\$399,260	\$530,525
Securities Lending Collateral	257,433,004	439,349,950
<b>Accounts Receivable:</b>		
Contributions	\$16,925,855	\$14,217,051
Investment Receivables	13,605,143	20,421,334
Investments Sold	29,232,715	6,509,950
Foreign Exchange Contracts	3,147,991	1,341,734
Others	<u>290,634</u>	<u>301,992</u>
Total Accounts Receivable	\$63,202,339	\$42,792,061
Prepaid Expenses	567,407	542,870
<b>Investments:</b>		
Short-Term Investments	\$180,853,549	\$144,922,222
Equities	3,593,731,169	3,226,434,525
Fixed Income Investments	949,035,923	1,065,454,967
Real Estate	294,628,580	320,757,236
Capital Assets	5,562,763	6,273,633
Private Equity and Alternative Investments	<u>637,299,326</u>	<u>295,642,247</u>
Total Investments at Market Value	<u>\$5,661,111,309</u>	<u>\$5,059,484,831</u>
<b>Total Assets</b>	<b>\$5,982,713,320</b>	<b>\$5,542,700,235</b>

*Note: Results may not total properly due to rounding.*



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

**EXHIBIT E (Continued)**

**Summary Statement of Assets**

<b>LIABILITIES</b>	<b>Year Ended December 31,</b>	
	<b>2012</b>	<b>2011</b>
<b>Less Accounts Payable:</b>		
Securities Lending & Investments Purchased	-\$302,648,982	-\$451,710,801
Investment-Related Payables	-5,599,494	-8,005,633
Futures Contracts & Equity Swaps	-571,493	-1,741,093
Foreign Exchange Contracts	-1,306,833	-2,474,772
Accrued Administration Expense	-1,948,046	-2,064,002
Members Benefits & Refunds, and Retirement Payroll		
Deductions Payable	<u>-2,434,276</u>	<u>-2,305,752</u>
Total Accounts Payable	-314,509,124	-\$468,302,054
<b>NET ASSETS</b>		
<b>Net Assets at Market Value</b>	<u>\$5,668,204,196</u>	<u>\$5,074,398,182</u>
<b>Net Assets at Actuarial Value</b>	<u>\$5,543,303,209</u>	<u>\$5,556,242,772</u>
<b>Net Assets at Valuation Value</b>	<u>\$4,883,871,966</u>	<u>\$4,868,688,966</u>

*Note: Results may not total properly due to rounding.*

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

**EXHIBIT F**

**Actuarial Balance Sheet**

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

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

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

<b>Assets</b>	<b>Basic</b>	<b>COLA</b>	<b>Total</b>
1. Total valuation assets	\$3,280,015	\$1,603,857	\$4,883,872
2. Present value of future contributions by members	535,837	123,505	659,342
3. Present value of future employer contributions for:			
a. entry age normal cost	609,073	120,350	729,423
b. unfunded actuarial accrued liability	1,442,866	286,191	1,729,057
4. Total current and future assets	\$5,867,791	\$2,133,903	\$8,001,694
<b>Liabilities</b>			
5. Present value of benefits already granted	\$2,454,776	\$1,382,087	\$3,836,863
6. Present value of benefits to be granted to present non-retired members	3,413,015	751,816	4,164,831
7. Total liabilities	\$5,867,791	\$2,133,903	\$8,001,694

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

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**EXHIBIT G**

**Summary of Reported Asset Information as of December 31, 2012**

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	<b>Reserves</b>
<b>Used in Development of Valuation Value of Assets</b>	
Members deposit-basic	\$884,313,776
Members cost-of-living	199,601,657
Employer advance (before transfer from SRBR to employer advance)	445,102,905
Pension reserve-current	1,212,467,690
Pension reserve-prior	3,302,686
Annuity reserve	720,271,879
Cost-of-living reserve	1,404,255,235
Survivor death benefit	7,185,672
SRBR transfer to employer advance	7,370,466
Reserve for interest fluctuations (contingency reserve), if negative	0
Subtotal	<u>\$4,883,871,966</u>
<b>Not Used in Development of Valuation Value of Assets</b>	
401(h) account	\$6,094,423
Death benefit-burial	6,070,370
Supplemental retirees benefit reserve (before transfer from SRBR to employer advance)	570,878,930
Reserve for interest fluctuations (contingency reserve), if positive	83,757,986
Market stabilization reserve	124,900,987
SRBR transfer to employer advance	<u>-7,370,466</u>
Subtotal	<u>\$784,332,230</u>
Total	\$5,668,204,196

\* Estimate provided by ACERA.

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

**EXHIBIT H**

**Development of Unfunded Actuarial Accrued Liability as of December 31, 2012**

	<b>(Dollar Amounts in Thousands)</b>
1. Unfunded actuarial accrued liability at beginning of year	\$1,490,794
2. Total Normal Cost at middle of year	163,591
3. Actual employer and member contributions	-258,257
4. Interest (whole year on (1) plus half year on (2) + (3))	<u>112,590</u>
5. Expected unfunded actuarial accrued liability at end of year	\$1,508,718
6. Actuarial (gain)/loss due to all changes*:	
a. Loss from investments as recognized on December 31, 2012	\$300,350
b. Gain from lower than expected salary increases for actives	-92,103
c. Other experience (gain)/loss	<u>12,092</u>
d. Subtotal**	\$220,339
7. Actual unfunded actuarial accrued liability at end of year (5) + (6d)	\$1,729,057

\* The "net gain from other experience" of \$80,011 from Chart 9 is equal to the sum of items 6b and 6c.

\*\* Excludes loss from contributions less than anticipated due to scheduled one-year delay in implementing the higher contribution rate calculated in the December 31, 2011 valuation. That loss is already included in the development of item 5.

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

**EXHIBIT I**

**Table of Amortization Bases (Dollar Amounts in Thousands)**

Type	Date Established	Initial Years	Initial Amount	Outstanding Balance	Years Remaining	Annual Payment*
<b>General</b>						
Combined Bases	12/31/2011	21	\$892,096	\$897,638	20	\$64,341
Experience Loss	12/31/2012	20	165,871	<u>165,871</u>	20	<u>11,889</u>
Total				\$1,063,509		\$76,230
<b>Safety</b>						
Combined Bases	12/31/2011	21	\$598,698	\$602,418	20	\$43,180
Experience Loss	12/31/2012	20	63,130	<u>63,130</u>	20	<u>4,525</u>
Total				\$665,548		\$47,705
<b>Total</b>						
Combined Bases	12/31/2011	21	\$1,490,794	\$1,500,056	20	\$107,521
Experience Loss	12/31/2012	20	229,001	<u>229,001</u>	20	<u>16,414</u>
Total				\$1,729,057		\$123,935

\* Level percentage of payroll.

Note: The equivalent single amortization period is 20 years.

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

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#### EXHIBIT J

#### Section 415 Limitations

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

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

In particular, Section 415(b) of the IRC limits the maximum annual benefit payable at the Normal Retirement Age to a dollar indexed for inflation. That limit is \$200,000 for 2012 and \$205,000 for 2013. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must generally be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions.

Non-Tier 4 benefits in excess of the limits may be paid through a qualified governmental excess plan that meets the requirements of Section 415(m).

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

Non-Tier 4 contributions rates determined in this valuation have not been reduced for the Section 415 limitations. Actual limitations will result in gains as they occur.

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

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**EXHIBIT K**

**Definitions of Pension Terms**

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

**Assumptions or Actuarial**

**Assumptions:**

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

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

**Normal Cost:**

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

**Actuarial Accrued Liability**

**For Actives:**

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

**Actuarial Accrued Liability**

**For Pensioners:**

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

**Unfunded (Overfunded) Actuarial**

**Accrued Liability:**

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

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

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**Amortization of the Unfunded  
(Overfunded) Actuarial  
Accrued Liability:**

Payments made over a period of years equal in value to the Plan's unfunded or overfunded actuarial accrued liability.

**Investment Return:**

The rate of earnings of the Plan from its investments, including interest, dividends and capital gain and loss adjustments, computed as a percentage of the average value of the fund. For actuarial purposes, the investment return often reflects a smoothing of the capital gains and losses to avoid significant swings in the value of assets from one year to the next.



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

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### EXHIBIT I

#### Summary of Actuarial Valuation Results

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The valuation was made with respect to the following data supplied to us:

1. Retired members as of the valuation date (including 1,122 beneficiaries in pay status)	8,175
2. Members inactive during year ended December 31, 2012 with vested rights	1,835
3. Members active during the year ended December 31, 2012	10,800

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The actuarial factors as of the valuation date are as follows (amounts in 000s):

1. Normal cost	\$173,016
2. Present value of future benefits	8,001,694
3. Present value of future normal costs	1,388,765
4. Actuarial accrued liability*	6,612,929
Retired members and beneficiaries	\$3,836,863
Inactive members with vested rights	170,106
Active members	2,605,960
5. Valuation value of assets** (\$5,668,204 at market value as reported by Retirement Association)	4,883,872
6. Unfunded actuarial accrued liability	\$1,729,057

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\* Excludes liabilities held for SRBR and other non-valuation reserves.

\*\* Excludes Reserve for Interest Fluctuations (Contingency Reserve) if positive, Supplemental Retirees Benefit Reserve, and other non-valuation reserves (Death Benefit – Burial & 401 (h) Reserves).

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

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**EXHIBIT I (continued)**

**Summary of Actuarial Valuation Results**

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The determination of the recommended average employer contribution is as follows  
(amounts in 000s):

	<b>Dollar Amount</b>	<b>% of Payroll</b>
1. Total normal cost	\$173,016	19.09%
2. Expected employee contributions	<u>-77,942</u>	<u>-8.60%</u>
3. Employer normal cost: (1) + (2)	\$95,074	10.49%
4. Amortization of unfunded actuarial accrued liability	<u>123,935</u>	<u>13.67%</u>
5. Total recommended average employer contribution: (3) + (4)	\$219,009	24.16%
6. Projected compensation	\$906,500	

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

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**EXHIBIT II**

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

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<b>Plan Year Ended December 31</b>	<b>Annual Required Contributions</b>	<b>Actual Contributions</b>	<b>Percentage Contributed</b>
2007	\$130	\$130	100.0%
2008	130	130	100.0%
2009	132	132	100.0%
2010	148	148	100.0%
2011	163	163	100.0%
2012	180	180	100.0%

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

**EXHIBIT III**

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

<b>Actuarial Valuation Date</b>	<b>Valuation Value of Assets<sup>(1)</sup> (a)</b>	<b>Actuarial Accrued Liability (AAL)<sup>(2)</sup> (b)</b>	<b>Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)</b>	<b>Funded Ratio (%) (a) / (b)</b>	<b>Covered Payroll (c)</b>	<b>UAAL as a Percentage of Covered Payroll (%) [(b) - (a)] / (c)</b>
12/31/2007	\$4,560,213 <sup>(3)</sup>	\$5,112,403	\$552,190	89.2%	\$793,558	69.6%
12/31/2008	4,644,010 <sup>(4)</sup>	5,537,919	893,909	83.9	864,260	103.4
12/31/2009	4,789,000 <sup>(5)</sup>	5,899,331	1,110,331	81.2	882,606	125.8
12/31/2010	4,776,128 <sup>(6)</sup>	6,162,740	1,386,612	77.5	898,342	154.4
12/31/2011	4,868,689 <sup>(7)</sup>	6,359,483	1,490,794	76.6	892,489	167.0
12/31/2012	4,883,872 <sup>(8)</sup>	6,612,929	1,729,057	73.9	906,500	190.7

<sup>(1)</sup> Excludes assets for SRBR and other non-valuation reserves.

<sup>(2)</sup> Excludes liabilities for SRBR and other non-valuation reserves.

<sup>(3)</sup> Includes \$3,091,493 in reimbursement of implicit retiree health benefit subsidy paid by the County for 2007.

<sup>(4)</sup> Includes \$4,149,463 in reimbursement of implicit retiree health benefit subsidy paid by the County for 2008.

<sup>(5)</sup> Includes \$5,287,767 in reimbursement of implicit retiree health benefit subsidy paid by the County for 2009.

<sup>(6)</sup> Includes \$4,500,000 in reimbursement of implicit retiree health benefit subsidy paid by the County for 2010 (estimate, provided by ACERA).

<sup>(7)</sup> Includes \$4,411,206 in reimbursement of implicit retiree health benefit subsidy paid by the County for 2011 (estimate, provided by ACERA).

<sup>(8)</sup> Includes \$7,370,466 in reimbursement of implicit retiree health benefit subsidy paid by the County for 2012 (estimate, provided by ACERA).

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

**EXHIBIT IV**

**Supplementary Information Required by GASB**

<b>Valuation date</b>	December 31, 2012
<b>Actuarial cost method</b>	Entry Age Normal Cost Method
<b>Amortization method</b>	Level percent of payroll
<b>Remaining amortization period</b>	Prior to January 1, 2012, the total UAAL was amortized on a 30-year decreasing period, with 21 years remaining as of December 31, 2011 (and 20 years remaining as of December 31, 2012). On or after January 1, 2012, any new UAAL resulting from plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 20-year periods; and experience gains/losses are also amortized over separate decreasing 20-year periods.
<b>Asset valuation method</b>	The Actuarial Value of Assets is determined by phasing in any difference between actual and expected market return over 10 six-month interest crediting periods. The Valuation Value of Assets is the Actuarial Value of Assets reduced by the value of the non-valuation reserves.
<b>Actuarial assumptions:</b>	
Investment rate of return	7.80%
Inflation rate	3.50%
Real across-the-board salary increase	0.50%
Projected salary increases*	General: 4.60% to 7.20% and Safety: 4.70% to 10.20%
Cost of living adjustments	3.00% of Tier 1 and Tier 3 retirement income and 2.00% of Tier 2 and Tier 4 retirement income
<b>Plan membership:</b>	
Retired members and beneficiaries receiving benefits	8,175
Terminated members entitled to, but not yet receiving benefits	1,835
Active members	<u>10,800</u>
Total	20,810

\* Includes inflation at 3.50% plus real across-the-board salary increase of 0.50% plus merit and longevity increases. See Exhibit V for these increases.

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

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**EXHIBIT V**

**Actuarial Assumptions and Actuarial Cost Method**

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**Post-Retirement Mortality Rates**

*Healthy:*

For General members and all beneficiaries: RP-2000 Combined Healthy Mortality Table set back two years for males and one year for females.

For Safety members: RP-2000 Combined Healthy Mortality Table set back two years for males and one year for females.

*Disabled:*

For General members: RP-2000 Combined Healthy Mortality Table set forward four years.

For Safety members: RP-2000 Combined Healthy Mortality Table set forward two years.

The mortality tables shown above were determined to contain sufficient provision appropriate to reasonably reflect future mortality improvement, based on a review of the mortality experience in the December 1, 2007 - November 30, 2010 Actuarial Experience Study.

*Employee Contribution Rates:*

For General members: RP-2000 Combined Healthy Mortality Table set back two years for males and one year for females, weighted 30% male and 70% female.

For Safety members: RP-2000 Combined Healthy Mortality Table set back two years for males and one year for females, weighted 75% male and 25% female.

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

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**Termination Rates Before Retirement:**

Age	Rate (%) Mortality			
	General		Safety	
	Male	Female	Male	Female
25	0.04	0.02	0.04	0.02
30	0.04	0.02	0.04	0.02
35	0.06	0.04	0.06	0.04
40	0.10	0.06	0.10	0.06
45	0.13	0.10	0.13	0.10
50	0.19	0.16	0.19	0.16
55	0.29	0.24	0.29	0.24
60	0.53	0.44	0.53	0.44
65	1.00	0.86	1.00	0.86

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

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

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

<b>Age</b>	<b>Rate (%)</b>	
	<b>Disability</b>	
	<b>General<sup>(1)</sup></b>	<b>Safety<sup>(2)</sup></b>
20	0.00	0.00
25	0.01	0.00
30	0.03	0.24
35	0.08	0.46
40	0.16	0.50
45	0.23	0.50
50	0.34	1.10
55	0.46	1.92
60	0.59	2.20

<sup>(1)</sup> 70% of General disabilities are assumed to be service connected disabilities. The other 30% are assumed to be non-service connected disabilities.

<sup>(2)</sup> 100% of Safety disabilities are assumed to be service connected disabilities.



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

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

Rate (%)		
Termination (< 5 Years of Service) <sup>(1)</sup>		
Years of Service	General	Safety
0	13.00	5.00
1	9.00	3.00
2	8.00	3.00
3	6.00	2.00
4	5.00	2.00
Termination (5+ Years of Service) <sup>(2)</sup>		
Age	General	Safety
20	5.00	2.00
25	5.00	2.00
30	5.00	2.00
35	4.70	1.40
40	3.72	1.00
45	2.54	1.00
50	2.04	1.00
55	2.00	1.00
60	2.00	0.40

<sup>(1)</sup> 70% of all terminated members will choose a refund of contributions and 30% will choose a deferred vested benefit.

<sup>(2)</sup> 40% of all terminated members will choose a refund of contributions and 60% will choose a deferred vested benefit. No termination is assumed after a member is eligible for retirement.

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

**Retirement Rates:**

Age	Rate (%)							
	General Tier 1	General Tier 2	General Tier 3	General Tier 4	Safety Tier 1 <sup>(1)</sup>	Safety Tier 2, 2D <sup>(1)</sup>	Safety Tier 2C <sup>(1)</sup>	Safety Tier 4
50	3.00	2.00	6.00	0.00	35.00	10.00	4.00	4.00
51	3.00	2.00	3.00	0.00	25.00	10.00	2.00	2.00
52	3.00	2.00	5.00	4.00	25.00	10.00	2.00	2.00
53	3.00	2.00	6.00	1.50	35.00	10.00	3.00	3.00
54	3.00	2.00	6.00	1.50	40.00	10.00	6.00	6.00
55	6.00	3.00	12.00	2.50	40.00	10.00	10.00	10.00
56	8.00	3.00	13.00	2.50	40.00	15.00	12.00	12.00
57	10.00	4.00	13.00	3.50	40.00	20.00	20.00	20.00
58	10.00	5.00	14.00	4.50	40.00	20.00	10.00	10.00
59	13.00	5.00	16.00	4.50	40.00	20.00	15.00	15.00
60	20.00	5.00	21.00	4.50	100.00	40.00	60.00	60.00
61	20.00	8.00	20.00	7.50	100.00	40.00	60.00	60.00
62	35.00	20.00	30.00	19.00	100.00	40.00	60.00	60.00
63	30.00	16.00	25.00	15.00	100.00	40.00	60.00	60.00
64	30.00	18.00	25.00	17.00	100.00	100.00	100.00	100.00
65	35.00	22.00	30.00	21.00	100.00	100.00	100.00	100.00
66	30.00	20.00	25.00	20.00	100.00	100.00	100.00	100.00
67	25.00	20.00	25.00	20.00	100.00	100.00	100.00	100.00
68	20.00	30.00	25.00	30.00	100.00	100.00	100.00	100.00
69	40.00	35.00	50.00	35.00	100.00	100.00	100.00	100.00
70	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

<sup>(1)</sup> Retirement rate is 100% after a member accrues a benefit of 100% of final average earnings.

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

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**Retirement Age and Benefit for  
Deferred Vested Members:**

For deferred vested members, retirement age assumptions are as follows:

General Age:	59
Safety Age:	56

For future deferred vested members who terminate with less than five years of service and are not vested, we assume that they will retire at age 70 for both General and Safety if they decide to leave their contributions on deposit.

We assume that 35% of future General and 55% of future Safety deferred vested members will continue to work for a reciprocal employer. For reciprocals, we assume 4.60% and 4.70% compensation increases per annum for General and Safety, respectively.

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**Future Benefit Accruals:**

1.0 year of service per year of employment plus 0.006 year of additional service to anticipate conversion of unused sick leave for each year of employment.

**Unknown Data for Members:**

Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.

**Inclusion of Deferred Vested  
Members:**

All deferred vested members are included in the valuation.

**Percent Married:**

70% of male members; 50% of female members.

**Age of Spouse:**

Female (or male) spouses are 3 years younger (or older) than their spouses.

**Net Investment Return:**

7.80%, net of administration and investment expenses (approximately 1% of assets)

**Employee Contribution  
Crediting Rate:**

7.80%, compounded semi-annually.

**Consumer Price Index:**

Increase of 3.50% per year, retiree COLA increases due to CPI subject to a 3% maximum change per year for General Tier 1, General Tier 3 and Safety Tier 1 and 2% maximum change per year for General Tier 2, General Tier 4, Safety Tier 2, Safety Tier 2C, Safety Tier 2D, and Safety Tier 4.

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

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**Salary Increases:**

Annual Rate of Compensation Increase (%)		
Inflation: 3.50%; an additional 0.50% “across the board” salary increases (other than inflation); plus the following Merit and Promotional increases based on service.		
Service	General	Safety
0-1	3.20%	6.20%
1-2	3.20	6.20
2-3	2.90	5.40
3-4	2.10	3.60
4-5	2.00	3.00
5-6	1.70	2.70
6-7	1.50	1.60
7-8	1.40	1.10
8-9	1.00	1.00
9-10	1.00	1.00
10-11	0.90	1.00
11+	0.60	0.70

**Actuarial Value of Assets:**

The Actuarial Value of Assets is determined by phasing in any difference between actual and expected market return over 10 six-month interest crediting periods.

**Valuation Value of Assets:**

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

**Actuarial Cost Method:**

Entry Age Normal Actuarial Cost Method. Entry Age is the age at the member’s hire date. Actuarial Accrued Liability is calculated on an individual basis and is based on costs allocated as a level percentage of compensation. The Normal Cost is also calculated on an individual basis where the Entry Age Normal Cost is calculated as the sum of the individual Normal Costs.

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

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**Terminal Pay Assumptions:**

Additional pay elements are expected to be received during a member's final average earnings period. The percentages, added to the final year salary, used in this valuation are:

	<u>Service Retirement</u>	<u>Disability Retirement</u>
General Tier 1	8.0%	6.5%
General Tier 2	3.0%	1.4%
General Tier 3	8.0%	6.5%
General Tier 4	N/A	N/A
Safety Tier 1	8.5%	6.4%
Safety Tier 2	4.0%	2.1%
Safety Tier 2C	4.0%	2.1%
Safety Tier 2D	4.0%	2.1%
Safety Tier 4	N/A	N/A

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**Changes in Actuarial Method:**

Based on the funding policy letter dated September 18, 2012, the following actuarial method was changed. Previously the method was as follows:

**Actuarial Cost Method:**

Entry Age Normal Actuarial Cost Method. Entry Age is the age at the member's hire date. Actuarial Accrued Liability is calculated on an individual basis and is based on costs allocated as a level percentage of compensation. The Normal Cost is calculated on an aggregate basis by taking the Present Value of Future Normal Costs divided by the Present Value of Future Salaries to obtain a normal cost rate. This normal cost rate is then multiplied by the total of current salaries.

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

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**EXHIBIT VI**

**Summary of Plan Provisions**

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

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**Membership Eligibility:**

	Membership with ACERA usually begins with the second pay period following appointment to a full time County or member District position. ACERA members who change from full time to part time may elect to continue membership at ACERA.
<i>General and Safety Tier 1</i>	All General and Safety members hired on or before June 30, 1983.
<i>General and Safety Tier 2</i>	All General and Safety members hired after June 30, 1983.
<i>General Tier 3</i>	Only General LARPD members hired before October 1, 2008 who elected the 2.5% at 55 formula and all General LARPD members hired after that date.
<i>General and Safety Tier 4</i>	All General and Safety members with membership dates or after January 1, 2013.
<i>Safety Tier 2C</i>	All Safety members in the Sheriff's Department (excluding Probation Officers) hired on or after October 17, 2010 who elected the 2% at 50 formula.
<i>Safety Tier 2D</i>	All Safety members in the Sheriff's Department (excluding Probation Officers) hired on or after October 17, 2010 who elected the 3% at 55 formula.

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

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**Final Compensation for  
Benefit Determination:**

*General Tier 1, General Tier 3  
and Safety Tier 1*

Highest consecutive twelve months of compensation earnable (§31462.1) (FAS1).

*General Tier 2, General Tier 4,  
Safety Tier 2, Safety Tier 2C,  
Safety Tier 2D, and Safety Tier 4*

For non-Tier 4 members, highest consecutive thirty-six months of compensation earnable (§31462), and for Tier 4 members, highest consecutive thirty-six months of pensionable compensation (§7522.10(c), §7522.32 and §7522.34).

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**Service:**

Years of service (Yrs).

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**Service Retirement Eligibility:**

*General*

*Non-Tier 4*

Age 50 with 10 years of service, or age 70 regardless of service, or after 30 years, regardless of age (§31672).

*Tier 4*

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

*Safety*

*Non-Tier 4*

Age 50 with 10 years of service, or after 20 years, regardless of age (§31663.25).

*Tier 4*

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

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

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**Benefit Formula:**

	<b>Retirement Age</b>	<b>Benefit Formula</b>
<i>General Tier 1 (§31676.12)</i>	50	$(1.34\% \times \text{FAS1} - 1/3 \times 1.34\% \times \$350 \times 12) \times \text{Yrs}$
	55	$(1.77\% \times \text{FAS1} - 1/3 \times 1.77\% \times \$350 \times 12) \times \text{Yrs}$
	60	$(2.34\% \times \text{FAS1} - 1/3 \times 2.34\% \times \$350 \times 12) \times \text{Yrs}$
	62 or later	$(2.62\% \times \text{FAS1} - 1/3 \times 2.62\% \times \$350 \times 12) \times \text{Yrs}$

	<b>Retirement Age</b>	<b>Benefit Formula</b>
<i>General Tier 2 (§31676.1)</i>	50	$(1.18\% \times \text{FAS3} - 1/3 \times 1.18\% \times \$350 \times 12) \times \text{Yrs}$
	55	$(1.49\% \times \text{FAS3} - 1/3 \times 1.49\% \times \$350 \times 12) \times \text{Yrs}$
	60	$(1.92\% \times \text{FAS3} - 1/3 \times 1.92\% \times \$350 \times 12) \times \text{Yrs}$
	62	$(2.09\% \times \text{FAS3} - 1/3 \times 2.09\% \times \$350 \times 12) \times \text{Yrs}$
	65	$(2.43\% \times \text{FAS3} - 1/3 \times 2.43\% \times \$350 \times 12) \times \text{Yrs}$

	<b>Retirement Age</b>	<b>Benefit Formula</b>
<i>General Tier 3 (§31676.18)</i>	50	$2.00\% \times \text{FAS1} \times \text{Yrs}$
	55 or later	$2.50\% \times \text{FAS1} \times \text{Yrs}$

	<b>Retirement Age</b>	<b>Benefit Formula</b>
<i>General Tier 4 (§7522.20(a))</i>	52	$1.00\% \times \text{FAS3} \times \text{Yrs}$
	55	$1.30\% \times \text{FAS3} \times \text{Yrs}$
	60	$1.80\% \times \text{FAS3} \times \text{Yrs}$
	62	$2.00\% \times \text{FAS3} \times \text{Yrs}$
	65	$2.30\% \times \text{FAS3} \times \text{Yrs}$
	67 or later	$2.50\% \times \text{FAS3} \times \text{Yrs}$



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

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	<b>Retirement Age</b>	<b>Benefit Formula</b>
<i>Safety Tier 1 (Non-Integrated)</i>	50	3.00% x FAS1 x Yrs
(§31664.1)	55 or later	3.00% x FAS1 x Yrs
<i>Safety Tier 2 (Non-Integrated)</i>	50	3.00% x FAS3 x Yrs
(§31664.1)	55 or later	3.00% x FAS3 x Yrs
<i>Safety Tier 2C (Non-Integrated)</i>	50	2.00% x FAS3 x Yrs
(§31664)	55 or later	2.62% x FAS3 x Yrs
<i>Safety Tier 2D (Non-Integrated)</i>	50	2.29% x FAS3 x Yrs
(§31664.2)	55 or later	3.00% x FAS3 x Yrs
<i>Safety Tier 4 (Non-Integrated)</i>	50	2.00% x FAS3 x Yrs
(§7522.25(d))	55	2.50% x FAS3 x Yrs
	57 or later	2.70% x FAS3 x Yrs
<b>Maximum Benefit:</b>		
<i>Non-Tier 4</i>	100% of Highest Average Compensation (§31676.1, §31676.12, §31676.18, §31664, §31664.1, and §31664.2).	
<i>Tier 4</i>	None	

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

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**Ordinary Disability:**

General Tier 1, Tier 2, Tier 3, and Tier 4

<i>Eligibility</i>	Five years of service (§31720).
<i>Benefit Formula</i>	1.8% per year of service for General Tier 1 and Tier 3 and 1.5% per year of service for General Tier 2 and Tier 4. If the benefit does not exceed one-third of Final Compensation, the service is projected to 62 for General Tier 1 and Tier 3, and to age 65 for General Tier 2 and Tier 4, but the total benefit cannot be more than one-third of Final Compensation (§31727.1 and §31727).

Safety Tier 1, Tier 2, Tier 2C, Tier 2D, and Tier 4

<i>Eligibility</i>	Five years of service (§31720).
<i>Benefit Formula</i>	1.8% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 55, but the total benefit cannot be more than one-third of Final Compensation (§31727.2).

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**Line-of-Duty Disability:**

All Members

<i>Eligibility</i>	No age or service requirements (§31720).
<i>Benefit Formula</i>	50% of the Final Compensation or 100% of Service Retirement benefit, if greater (§31727.4).

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

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**Pre-Retirement Death:**

All Members

*Eligibility*

None.

*Basic lump sum benefit*

Refund of employee contributions with interest, plus one month's compensation for each year of service, to a maximum of six month's compensation (§31781).

*Death in line of duty*

50% of Final Compensation or 100% of Service Retirement benefit, if greater, payable to spouse or minor children (§31787).

OR

Vested Members

*Eligibility*

Five years of service.

*Basic benefit*

60% of the greater of Service or Ordinary Disability Retirement benefit payable to surviving eligible spouse (§31765.1, §31781.1), in lieu of the basic lump sum benefit above.

*Death in line of duty*

50% of Final compensation or 100% of Service Retirement benefit, if greater, payable to spouse or minor children (§31787).

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

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**Death After Retirement:**

*All Members*

*Service or*

*Ordinary Disability Retirement*

60% of member's unmodified allowance continued to eligible spouse (§31760.1) and \$750<sup>(1)</sup> lump sum benefit payable to member's beneficiary (§31789.3). An eligible spouse is a surviving spouse who was married to the member at least one year prior to the date of retirement (§31760.1).

*Line-of-Duty Disability*

100% of member's allowance continued to eligible spouse (§31786).

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**Withdrawal Benefits:**

*Less than Five Years of Service*

Refund of accumulated employee contributions with interest, or earned benefit at age 70 (§31628). Effective January 1, 2003, a member may also elect to leave contributions on deposit in the retirement fund (§31629.5).

*Five or More Years of Service*

If contributions left on deposit, entitled to earned benefits commencing at any time after eligible to retire (§31700).

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**Post-retirement**

**Cost-of-Living Benefits:**

*General Tier 1, General Tier 3  
and Safety Tier 1*

Future changes based on Consumer Price Index to a maximum of 3% per year; excess "banked" (§31870.1).

*General Tier 2, General Tier 4  
Safety Tier 2, Safety Tier 2C,  
Safety Tier 2D, and Safety Tier 4*

Future changes based on Consumer Price Index to a maximum of 2% per year; excess "banked" (§31870).

<sup>(1)</sup> Historically, a \$5,000 lump sum benefit has been paid by the Association. Of that amount, \$750 had been funded by the employer and the remaining \$4,250 had been funded by the Supplemental Retirees Benefit Reserve. Those benefits had been historically excluded from the valuation. As the Board of Retirement has recently decided to eliminate the portion of the \$4,250 lump sum paid from the SRBR, we will work with the Association to determine how the funding of the \$750 should be reflected before the next valuation.

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

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<b>County Contributions:</b>	Prior to January 1, 2012, the total UAAL was amortized on a 30-year decreasing period, with 21 years remaining as of December 31, 2011. On or after January 1, 2012, plan amendments are amortized over separate decreasing 15-year periods; early retirement incentive programs (ERIPs) are amortized over separate decreasing 5-year periods; assumption and method changes are amortized over separate decreasing 20-year periods; and experience gains/losses are also amortized over separate decreasing 20-year periods.
<b>Supplemental Benefit:</b>	Non-vested supplemental COLA and medical benefits are also paid from the Supplemental Retirees Benefit Reserve to eligible retirees and survivors. These benefits have been excluded from this valuation.
<b>Member Contributions:</b>	Please refer to Appendix A for specific rates.
<i>General Tier 1</i>	
<i>Basic</i>	Provide for an average annuity at age 60 equal to 1/100 of FAS1 (§31621.2).
<i>Cost-of-Living</i>	Provide for one-half of future Cost-of-Living costs.
<i>General Tier 2</i>	
<i>Basic</i>	Provide for an average annuity at age 60 equal to 1/120 of FAS3 (§31621).
<i>Cost-of-Living</i>	Provide for one-half of future Cost-of-Living costs.
<i>General Tier 3</i>	
<i>Basic</i>	Provide for an average annuity at age 55 equal to 1/100 of FAS1 (§31621.8).
<i>Cost-of-Living</i>	Provide for one-half of future Cost-of-Living costs.
<i>General Tier 4</i>	50% of the total Normal Cost rate.

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

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### *Safety Non-Tier 4*

#### *Basic*

Provide for an average annuity at age 50 equal to 1/100 of FAS1 (FAS3 for Tier 2, Tier 2C, and Tier 2D) (\$31639.25). As instructed by ACERA, we have also included a 3% cost sharing contribution that we understand will be paid by Safety Tier 1 and Tier 2 members even after they attain 30 years of service. For Safety Tier 2C members, there are no cost-sharing contributions. For Safety Tier 2D members, the cost-sharing contribution rate is 5% of salary for the first 5 years of employment and 3% of salary for each subsequent year of employment (even after the member attains 30 years of service).

#### *Cost-of-Living*

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

#### *Safety Tier 4*

50% of the total Normal Cost rate.

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#### **Other Information:**

Non-Tier 4 Safety members with 30 or more years of service are exempt from paying member contributions. This also applies for General members hired on or before March 7, 1973.

#### **Plan Amendment:**

All members with membership dates on or after January 1, 2013 enter either General Tier 4 or Safety Tier 4.

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**NOTE:** *The summary of major plan provisions is designed to outline principal plan benefits as interpreted for purposes of the actuarial valuation. If the Association should find the plan summary not in accordance with the actual provisions, the Association should alert the actuary so they can both be sure the proper provisions are valued.*

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

**Appendix A**

**Member Contribution Rates**

Comparison of Total Member Rate<sup>(1)</sup> from December 31, 2012 (New) and December 31, 2011 (Current) Valuations

General Tier 1				General Tier 2			
Entry Age	Current	New	Change	Entry Age	Current	New	Change
25	8.82%	8.81%	-0.01%	25	5.99%	5.99%	0.00%
35	10.53%	10.52%	-0.01%	35	7.15%	7.15%	0.00%
45	12.56%	12.55%	-0.01%	45	8.53%	8.53%	0.00%
General Tier 3				General Tier 4			
Entry Age	Current	New	Change	Entry Age <sup>(2)</sup>	Current	New	Change
25	10.22%	10.25%	0.03%	Any	8.25%	8.25%	0.00%
35	12.19%	12.23%	0.04%				
45	14.53%	14.58%	0.05%				
Safety Tier 1				Safety Tier 2			
Entry Age	Current	New	Change	Entry Age	Current	New	Change
25	16.68%	16.60%	-0.08%	25	13.78%	13.78%	0.00%
30	17.93%	17.83%	-0.10%	30	14.76%	14.76%	0.00%
35	19.32%	19.22%	-0.10%	35	15.84%	15.84%	0.00%
Safety Tier 2C				Safety Tier 2D (with less than 5 years of vesting service)			
Entry Age	Current	New	Change	Entry Age	Current	New	Change
25	10.31%	10.34%	0.03%	25	15.63%	15.61%	-0.02%
30	11.24%	11.28%	0.04%	30	16.59%	16.57%	-0.02%
35	12.28%	12.32%	0.04%	35	17.66%	17.64%	-0.02%
Safety Tier 2D (with 5 or more years of vesting service)				Safety Tier 4			
Entry Age <sup>(2)</sup>	Current	New	Change	Entry Age <sup>(2)</sup>	Current	New	Change
25	13.63%	13.61%	-0.02%	Any	13.75%	13.75%	0.00%
30	14.59%	14.57%	-0.02%				
35	15.66%	15.64%	-0.02%				

<sup>(1)</sup> Contributions for the first \$161 of biweekly payroll are based on 2/3 of the above rates for integrated members.

<sup>(2)</sup> Tier 4 member rates are independent of entry age.

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

Breakdown of member rate between basic and COLA calculated in the December 31, 2012 and December 31, 2011 valuations:

	December 31, 2012 Actuarial Valuation								December 31, 2011 Actuarial Valuation <sup>(1)</sup>							
	BASIC		COLA		COST SHARING CONTRIBUTIONS		TOTAL		BASIC		COLA		COST SHARING CONTRIBUTIONS		TOTAL	
	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*
<b>General Tier 1 Members</b>	6.61%	\$2,984	2.41%	\$1,088			9.02%	\$4,072	6.78%	\$3,061	2.48%	\$1,119			9.26%	\$4,180
<b>General Tier 2 Members</b>	6.00%	42,870	1.32%	9,432			7.32%	52,302	5.77%	41,227	1.27%	9,074			7.04%	50,301
<b>General Tier 3 Members</b>	9.39%	313	3.39%	113			12.78%	426	9.22%	307	3.29%	110			12.51%	417
<b>General Tier 4 Members</b>	6.91%	0	1.34%	0			8.25%	0	6.91%	0	1.34%	0			8.25%	0
<b>Safety Tier 1 Members</b>	5.53%	155	3.00%	84	3.00%	\$84	11.53%	323	5.62%	157	3.10%	87	3.00%	\$84	11.72%	328
<b>Safety Tier 2 Members</b>	8.81%	11,771	2.96%	3,955	3.00%	4,008	14.77%	19,734	8.22%	10,983	2.77%	3,701	3.00%	4,008	13.99%	18,692
<b>Safety Tier 2C Members</b>	9.76%	205	2.74%	58	0.00%	0	12.50%	263	9.21%	194	2.56%	53	0.00%	0	11.77%	247
<b>Safety Tier 2D Members</b>	8.93%	447	2.81%	140	4.69% <sup>(2)</sup>	235	16.43%	822	8.54%	428	2.71%	135	4.69% <sup>(2)</sup>	235	15.94%	798
<b>Safety Tier 4 Members</b>	11.15%	0	2.60%	0	0.00%	0	13.75%	0	11.15%	0	2.60%	0	0.00%	0	13.75%	0
<b>All Member Categories Combined</b>	6.48%	\$58,745	1.64%	\$14,870	0.48%	\$4,327	8.60%	\$77,942	6.22%	\$56,357	1.57%	\$14,279	0.48%	\$4,327	8.27%	\$74,963

<sup>(1)</sup> These rates have been re-calculated by applying the individual entry age based member rates determined in December 31, 2011 valuation to the Association membership as of December 31, 2012.

<sup>(2)</sup> Determined based on proportion of members contributing 5.00% (with less than 5 years of vesting service) and 3.00% (with 5 or more years of vesting service).



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

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\* Amounts are in thousands and are based on December 31, 2012 annual payroll (also in thousands):

	<u>County Only</u>	<u>ACMC, Court &amp; First 5</u>	<u>Other Districts</u>	<u>Total</u>
General Tier 1	\$29,703	\$10,170	\$5,269	\$45,142
General Tier 2	457,036	257,217	253	714,506
General Tier 3			3,335	3,335
General Tier 4				0
Safety Tier 1	2,802			2,802
Safety Tier 2	133,608			133,608
Safety Tier 2C	2,101			2,101
Safety Tier 2D	5,006			5,006
Safety Tier 4				0
Total	\$630,256	\$267,387	\$8,857	\$906,500

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

**Appendix A**

**Member Contribution Rates (Continued)**

**General Tier 1 Members' Contribution Rates Based on the December 31, 2012 Actuarial Valuation (as a % of payroll)**

<u>Entry Age</u>	<u>Basic Only</u>		<u>COLA Only</u>		<u>Total</u>	
	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>
15	3.65%	5.48%	1.33%	2.00%	4.98%	7.48%
16	3.65%	5.48%	1.33%	2.00%	4.98%	7.48%
17	3.72%	5.58%	1.35%	2.03%	5.07%	7.61%
18	3.79%	5.68%	1.38%	2.07%	5.17%	7.75%
19	3.86%	5.79%	1.41%	2.11%	5.27%	7.90%
20	3.93%	5.90%	1.43%	2.15%	5.36%	8.05%
21	4.00%	6.01%	1.46%	2.19%	5.46%	8.20%
22	4.08%	6.12%	1.49%	2.23%	5.57%	8.35%
23	4.15%	6.23%	1.51%	2.27%	5.66%	8.50%
24	4.23%	6.34%	1.54%	2.31%	5.77%	8.65%
25	4.30%	6.46%	1.57%	2.35%	5.87%	8.81%
26	4.38%	6.57%	1.59%	2.39%	5.97%	8.96%
27	4.46%	6.69%	1.63%	2.44%	6.09%	9.13%
28	4.54%	6.81%	1.65%	2.48%	6.19%	9.29%
29	4.62%	6.93%	1.69%	2.53%	6.31%	9.46%
30	4.71%	7.06%	1.71%	2.57%	6.42%	9.63%
31	4.79%	7.18%	1.75%	2.62%	6.54%	9.80%
32	4.88%	7.31%	1.77%	2.66%	6.65%	9.97%
33	4.96%	7.44%	1.81%	2.71%	6.77%	10.15%
34	5.05%	7.58%	1.84%	2.76%	6.89%	10.34%
35	5.14%	7.71%	1.87%	2.81%	7.01%	10.52%
36	5.23%	7.85%	1.91%	2.86%	7.14%	10.71%
37	5.32%	7.98%	1.94%	2.91%	7.26%	10.89%
38	5.42%	8.13%	1.97%	2.96%	7.39%	11.09%
39	5.51%	8.27%	2.01%	3.01%	7.52%	11.28%

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

**Appendix A**

**Member Contribution Rates (Continued)**

**General Tier 1 Members' Contribution Rates Based on the December 31, 2012 Actuarial Valuation (as a % of payroll) - continued**

<u>Entry Age</u>	<u>Basic Only</u>		<u>COLA Only</u>		<u>Total</u>	
	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>
40	5.61%	8.42%	2.05%	3.07%	7.66%	11.49%
41	5.71%	8.57%	2.08%	3.12%	7.79%	11.69%
42	5.81%	8.72%	2.12%	3.18%	7.93%	11.90%
43	5.92%	8.87%	2.15%	3.23%	8.07%	12.10%
44	6.02%	9.03%	2.19%	3.29%	8.21%	12.32%
45	6.13%	9.20%	2.23%	3.35%	8.36%	12.55%
46	6.24%	9.37%	2.27%	3.41%	8.51%	12.78%
47	6.36%	9.54%	2.32%	3.48%	8.68%	13.02%
48	6.48%	9.72%	2.36%	3.54%	8.84%	13.26%
49	6.59%	9.88%	2.40%	3.60%	8.99%	13.48%
50	6.69%	10.03%	2.44%	3.66%	9.13%	13.69%
51	6.80%	10.20%	2.47%	3.71%	9.27%	13.91%
52	6.88%	10.33%	2.51%	3.76%	9.39%	14.09%
53	6.97%	10.45%	2.54%	3.81%	9.51%	14.26%
54	7.04%	10.56%	2.57%	3.85%	9.61%	14.41%
55	7.10%	10.65%	2.59%	3.88%	9.69%	14.53%
56	7.14%	10.72%	2.60%	3.90%	9.74%	14.62%
57	7.13%	10.70%	2.60%	3.90%	9.73%	14.60%
58	7.06%	10.59%	2.57%	3.86%	9.63%	14.45%
59 & Over	6.82%	10.23%	2.49%	3.73%	9.31%	13.96%

\* Use these rates for Non-Integrated Members

Interest: 7.80% per annum  
 COLA: 3.00%  
 Mortality: RP-2000 Combined Healthy Mortality Table set back two years for males and one year for females, weighted 30% male and 70% female  
 Salary Increase: Inflation (3.50%) + Across-the-Board Increase (0.50%) + Merit (See Exhibit V)  
 COLA Loading Factor: 36.43%  
 Terminal Pay: 8.0%

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

**Appendix A**

**Member Contribution Rates (Continued)**

**General Tier 2 Members' Contribution Rates Based on the December 31, 2012 Actuarial Valuation (as a % of payroll)**

<u>Entry Age</u>	<u>Basic Only</u>		<u>COLA Only</u>		<u>Total</u>	
	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>
15	2.78%	4.17%	0.61%	0.92%	3.39%	5.09%
16	2.78%	4.17%	0.61%	0.92%	3.39%	5.09%
17	2.83%	4.24%	0.62%	0.93%	3.45%	5.17%
18	2.88%	4.32%	0.63%	0.95%	3.51%	5.27%
19	2.93%	4.40%	0.65%	0.97%	3.58%	5.37%
20	2.99%	4.48%	0.66%	0.99%	3.65%	5.47%
21	3.04%	4.57%	0.67%	1.00%	3.71%	5.57%
22	3.10%	4.65%	0.68%	1.02%	3.78%	5.67%
23	3.16%	4.73%	0.69%	1.04%	3.85%	5.77%
24	3.21%	4.82%	0.71%	1.06%	3.92%	5.88%
25	3.27%	4.91%	0.72%	1.08%	3.99%	5.99%
26	3.33%	5.00%	0.73%	1.10%	4.06%	6.10%
27	3.39%	5.09%	0.75%	1.12%	4.14%	6.21%
28	3.45%	5.18%	0.76%	1.14%	4.21%	6.32%
29	3.51%	5.27%	0.77%	1.16%	4.28%	6.43%
30	3.58%	5.37%	0.79%	1.18%	4.37%	6.55%
31	3.64%	5.46%	0.80%	1.20%	4.44%	6.66%
32	3.71%	5.56%	0.81%	1.22%	4.52%	6.78%
33	3.77%	5.66%	0.83%	1.25%	4.60%	6.91%
34	3.84%	5.76%	0.85%	1.27%	4.69%	7.03%
35	3.91%	5.86%	0.86%	1.29%	4.77%	7.15%
36	3.98%	5.96%	0.87%	1.31%	4.85%	7.27%
37	4.05%	6.07%	0.89%	1.34%	4.94%	7.41%
38	4.12%	6.18%	0.91%	1.36%	5.03%	7.54%
39	4.19%	6.28%	0.92%	1.38%	5.11%	7.66%

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

**Appendix A**

**Member Contribution Rates (Continued)**

**General Tier 2 Members' Contribution Rates Based on the December 31, 2012 Actuarial Valuation (as a % of payroll) - continued**

<u>Entry Age</u>	<u>Basic Only</u>		<u>COLA Only</u>		<u>Total</u>	
	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>
40	4.26%	6.40%	0.94%	1.41%	5.20%	7.81%
41	4.34%	6.51%	0.95%	1.43%	5.29%	7.94%
42	4.42%	6.63%	0.97%	1.46%	5.39%	8.09%
43	4.50%	6.74%	0.99%	1.48%	5.49%	8.22%
44	4.58%	6.86%	1.01%	1.51%	5.59%	8.37%
45	4.66%	6.99%	1.03%	1.54%	5.69%	8.53%
46	4.74%	7.12%	1.05%	1.57%	5.79%	8.69%
47	4.83%	7.24%	1.06%	1.59%	5.89%	8.83%
48	4.91%	7.36%	1.08%	1.62%	5.99%	8.98%
49	4.98%	7.47%	1.10%	1.65%	6.08%	9.12%
50	5.06%	7.58%	1.11%	1.67%	6.17%	9.25%
51	5.12%	7.68%	1.13%	1.69%	6.25%	9.37%
52	5.18%	7.77%	1.14%	1.71%	6.32%	9.48%
53	5.23%	7.85%	1.15%	1.73%	6.38%	9.58%
54	5.27%	7.91%	1.16%	1.74%	6.43%	9.65%
55	5.30%	7.95%	1.17%	1.75%	6.47%	9.70%
56	5.30%	7.95%	1.17%	1.75%	6.47%	9.70%
57	5.28%	7.92%	1.16%	1.74%	6.44%	9.66%
58	5.47%	8.21%	1.21%	1.81%	6.68%	10.02%
59 & Over	5.68%	8.52%	1.25%	1.88%	6.93%	10.40%

\* Use these rates for Non-Integrated Members

Interest: 7.80% per annum

COLA: 2.00%

Mortality: RP-2000 Combined Healthy Mortality Table set back two years for males and one year for females, weighted 30% male and 70% female

Salary Increase: Inflation (3.50%) + Across-the-Board Increase (0.50%) + Merit (See Exhibit V)

COLA Loading Factor: 22.01%

Terminal Pay: 3.0%

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

**Appendix A**

**Member Contribution Rates (Continued)**

**General Tier 3 Members' Contribution Rates Based on the December 31, 2012 Actuarial Valuation (as a % of payroll)**

<u>Entry Age</u>	<u>Basic Only</u>		<u>COLA Only</u>		<u>Total</u>	
	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>
15	4.27%	6.41%	1.55%	2.32%	5.82%	8.73%
16	4.27%	6.41%	1.55%	2.32%	5.82%	8.73%
17	4.35%	6.53%	1.57%	2.36%	5.92%	8.89%
18	4.43%	6.64%	1.60%	2.40%	6.03%	9.04%
19	4.51%	6.77%	1.63%	2.45%	6.14%	9.22%
20	4.59%	6.89%	1.66%	2.49%	6.25%	9.38%
21	4.68%	7.01%	1.69%	2.54%	6.37%	9.55%
22	4.76%	7.14%	1.72%	2.58%	6.48%	9.72%
23	4.85%	7.27%	1.75%	2.63%	6.60%	9.90%
24	4.93%	7.40%	1.79%	2.68%	6.72%	10.08%
25	5.02%	7.53%	1.81%	2.72%	6.83%	10.25%
26	5.11%	7.67%	1.85%	2.77%	6.96%	10.44%
27	5.20%	7.80%	1.88%	2.82%	7.08%	10.62%
28	5.29%	7.94%	1.91%	2.87%	7.20%	10.81%
29	5.39%	8.08%	1.95%	2.92%	7.34%	11.00%
30	5.48%	8.23%	1.99%	2.98%	7.47%	11.21%
31	5.58%	8.37%	2.02%	3.03%	7.60%	11.40%
32	5.68%	8.52%	2.05%	3.08%	7.73%	11.60%
33	5.78%	8.67%	2.09%	3.14%	7.87%	11.81%
34	5.88%	8.82%	2.13%	3.19%	8.01%	12.01%
35	5.99%	8.98%	2.17%	3.25%	8.16%	12.23%
36	6.09%	9.14%	2.21%	3.31%	8.30%	12.45%
37	6.20%	9.30%	2.24%	3.36%	8.44%	12.66%
38	6.31%	9.47%	2.28%	3.42%	8.59%	12.89%
39	6.43%	9.64%	2.33%	3.49%	8.76%	13.13%

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

**Appendix A**

**Member Contribution Rates (Continued)**

**General Tier 3 Members' Contribution Rates Based on the December 31, 2012 Actuarial Valuation (as a % of payroll) - continued**

<u>Entry Age</u>	<u>Basic Only</u>		<u>COLA Only</u>		<u>Total</u>	
	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>
40	6.54%	9.81%	2.37%	3.55%	8.91%	13.36%
41	6.66%	9.99%	2.41%	3.61%	9.07%	13.60%
42	6.79%	10.18%	2.45%	3.68%	9.24%	13.86%
43	6.91%	10.37%	2.50%	3.75%	9.41%	14.12%
44	7.03%	10.54%	2.54%	3.81%	9.57%	14.35%
45	7.14%	10.71%	2.58%	3.87%	9.72%	14.58%
46	7.25%	10.88%	2.62%	3.93%	9.87%	14.81%
47	7.35%	11.02%	2.66%	3.99%	10.01%	15.01%
48	7.43%	11.15%	2.69%	4.03%	10.12%	15.18%
49	7.51%	11.27%	2.72%	4.08%	10.23%	15.35%
50	7.57%	11.36%	2.74%	4.11%	10.31%	15.47%
51	7.62%	11.43%	2.76%	4.14%	10.38%	15.57%
52	7.61%	11.42%	2.75%	4.13%	10.36%	15.55%
53	7.53%	11.30%	2.73%	4.09%	10.26%	15.39%
54 & over	7.27%	10.91%	2.63%	3.95%	9.90%	14.86%

\* Use these rates for Non-Integrated Members

Interest: 7.80% per annum  
 COLA: 3.00%  
 Mortality: RP-2000 Combined Healthy Mortality Table set back two years for males and one year for females, weighted 30% male and 70% female  
 Salary Increase: Inflation (3.50%) + Across-the-Board Increase (0.50%) + Merit (See Exhibit V)  
 COLA Loading Factor: 36.17%  
 Terminal Pay: 8.0%

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

**Appendix A  
Member Contribution Rates (Continued)**

**General Tier 4 Members' Contribution Rates Based on the December 31, 2012 Actuarial Valuation (as a % of eligible payroll)\***

	<u>Basic Only</u> <u>Eligible Pay</u>	<u>COLA Only</u> <u>Eligible Pay</u>	<u>Total</u> <u>Eligible Pay</u>
All General Tier 4 Members	6.91%	1.34%	8.25%

Interest:	7.80% per annum
COLA:	2.00%
Mortality:	RP-2000 Combined Healthy Mortality Table set back two years for males and one year for females, weighted 30% male and 70% female
Salary Increase:	Inflation (3.50%) + Across-the-Board Increase (0.50%) + Merit (See Exhibit V)
COLA Loading Factor:	19.39%
Terminal Pay:	0.0%

\* It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2013 is equal to the Social Security Taxable Wage Base or \$113,700. (For an employer that is not enrolled in Social Security, the maximum amount is \$136,440 or 120% of the Social Security Taxable Wage Base). (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2013. (reference: Section 7522.10(d))



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

**Appendix A**

**Member Contribution Rates (Continued)**

**Safety Tier 1 Members' Contribution Rates Based on the December 31, 2012 Actuarial Valuation (as a % of payroll)**

Entry Age	Basic Only		Cost Sharing Contributions		COLA Only		Total	
	First \$161	Over \$161*	First \$161	Over \$161*	First \$161	Over \$161*	First \$161	Over \$161*
15	5.03%	7.54%	3.00%	3.00%	2.73%	4.09%	10.76%	14.63%
16	5.03%	7.54%	3.00%	3.00%	2.73%	4.09%	10.76%	14.63%
17	5.12%	7.68%	3.00%	3.00%	2.77%	4.16%	10.89%	14.84%
18	5.21%	7.81%	3.00%	3.00%	2.82%	4.23%	11.03%	15.04%
19	5.30%	7.95%	3.00%	3.00%	2.87%	4.30%	11.17%	15.25%
20	5.39%	8.09%	3.00%	3.00%	2.92%	4.38%	11.31%	15.47%
21	5.49%	8.23%	3.00%	3.00%	2.97%	4.46%	11.46%	15.69%
22	5.58%	8.37%	3.00%	3.00%	3.02%	4.53%	11.60%	15.90%
23	5.68%	8.52%	3.00%	3.00%	3.07%	4.61%	11.75%	16.13%
24	5.78%	8.67%	3.00%	3.00%	3.13%	4.69%	11.91%	16.36%
25	5.88%	8.82%	3.00%	3.00%	3.19%	4.78%	12.07%	16.60%
26	5.98%	8.97%	3.00%	3.00%	3.24%	4.86%	12.22%	16.83%
27	6.09%	9.13%	3.00%	3.00%	3.29%	4.94%	12.38%	17.07%
28	6.19%	9.29%	3.00%	3.00%	3.35%	5.03%	12.54%	17.32%
29	6.30%	9.45%	3.00%	3.00%	3.41%	5.12%	12.71%	17.57%
30	6.41%	9.62%	3.00%	3.00%	3.47%	5.21%	12.88%	17.83%
31	6.53%	9.79%	3.00%	3.00%	3.53%	5.30%	13.06%	18.09%
32	6.64%	9.96%	3.00%	3.00%	3.60%	5.40%	13.24%	18.36%
33	6.76%	10.14%	3.00%	3.00%	3.66%	5.49%	13.42%	18.63%
34	6.89%	10.33%	3.00%	3.00%	3.73%	5.59%	13.62%	18.92%
35	7.01%	10.52%	3.00%	3.00%	3.80%	5.70%	13.81%	19.22%
36	7.14%	10.72%	3.00%	3.00%	3.87%	5.80%	14.01%	19.52%
37	7.28%	10.92%	3.00%	3.00%	3.94%	5.91%	14.22%	19.83%
38	7.42%	11.14%	3.00%	3.00%	4.02%	6.03%	14.44%	20.17%
39	7.55%	11.33%	3.00%	3.00%	4.09%	6.14%	14.64%	20.47%

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

**Appendix A**

**Member Contribution Rates (Continued)**

**Safety Tier 1 Members' Contribution Rates Based on the December 31, 2012 Actuarial Valuation (as a % of payroll) - continued**

Entry Age	Basic Only		Cost Sharing Contributions		COLA Only		Total	
	First \$161	Over \$161*	First \$161	Over \$161*	First \$161	Over \$161*	First \$161	Over \$161*
40	7.69%	11.54%	3.00%	3.00%	4.17%	6.25%	14.86%	20.79%
41	7.84%	11.76%	3.00%	3.00%	4.25%	6.37%	15.09%	21.13%
42	7.99%	11.99%	3.00%	3.00%	4.33%	6.49%	15.32%	21.48%
43	8.12%	12.19%	3.00%	3.00%	4.40%	6.60%	15.52%	21.79%
44	8.19%	12.29%	3.00%	3.00%	4.43%	6.65%	15.62%	21.94%
45	8.25%	12.37%	3.00%	3.00%	4.47%	6.70%	15.72%	22.07%
46	8.27%	12.40%	3.00%	3.00%	4.48%	6.72%	15.75%	22.12%
47	8.16%	12.25%	3.00%	3.00%	4.42%	6.63%	15.58%	21.88%
48	7.97%	11.95%	3.00%	3.00%	4.31%	6.47%	15.28%	21.42%
49 & Over	7.58%	11.36%	3.00%	3.00%	4.10%	6.15%	14.68%	20.51%

\* Use these rates for Non-Integrated Members

Interest: 7.80% per annum  
 COLA: 3.00%  
 Mortality: RP-2000 Combined Healthy Mortality Table set back two years for males and one year for females, weighted 75% male and 25% female  
 Salary Increase: Inflation (3.50%) + Across-the-Board Increase (0.50%) + Merit (See Exhibit V)  
 COLA Loading Factor: 54.16%  
 Terminal Pay: 8.5%

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

**Appendix A**

**Member Contribution Rates (Continued)**

**Safety Tier 2 Members' Contribution Rates Based on the December 31, 2012 Actuarial Valuation (as a % of payroll)**

<u>Entry Age</u>	<u>Basic Only</u>		<u>Cost Sharing Contributions</u>		<u>COLA Only</u>		<u>Total</u>	
	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>
15	4.60%	6.91%	3.00%	3.00%	1.55%	2.32%	9.15%	12.23%
16	4.60%	6.91%	3.00%	3.00%	1.55%	2.32%	9.15%	12.23%
17	4.69%	7.03%	3.00%	3.00%	1.57%	2.36%	9.26%	12.39%
18	4.77%	7.15%	3.00%	3.00%	1.60%	2.40%	9.37%	12.55%
19	4.85%	7.28%	3.00%	3.00%	1.63%	2.45%	9.48%	12.73%
20	4.94%	7.40%	3.00%	3.00%	1.66%	2.49%	9.60%	12.89%
21	5.02%	7.53%	3.00%	3.00%	1.69%	2.53%	9.71%	13.06%
22	5.11%	7.66%	3.00%	3.00%	1.72%	2.58%	9.83%	13.24%
23	5.20%	7.80%	3.00%	3.00%	1.75%	2.62%	9.95%	13.42%
24	5.29%	7.93%	3.00%	3.00%	1.78%	2.67%	10.07%	13.60%
25	5.38%	8.07%	3.00%	3.00%	1.81%	2.71%	10.19%	13.78%
26	5.47%	8.21%	3.00%	3.00%	1.84%	2.76%	10.31%	13.97%
27	5.57%	8.35%	3.00%	3.00%	1.87%	2.81%	10.44%	14.16%
28	5.67%	8.50%	3.00%	3.00%	1.91%	2.86%	10.58%	14.36%
29	5.76%	8.65%	3.00%	3.00%	1.94%	2.91%	10.70%	14.56%
30	5.87%	8.80%	3.00%	3.00%	1.97%	2.96%	10.84%	14.76%
31	5.97%	8.95%	3.00%	3.00%	2.01%	3.01%	10.98%	14.96%
32	6.07%	9.11%	3.00%	3.00%	2.04%	3.06%	11.11%	15.17%
33	6.18%	9.28%	3.00%	3.00%	2.08%	3.12%	11.26%	15.40%
34	6.29%	9.44%	3.00%	3.00%	2.11%	3.17%	11.40%	15.61%
35	6.41%	9.61%	3.00%	3.00%	2.15%	3.23%	11.56%	15.84%
36	6.53%	9.79%	3.00%	3.00%	2.19%	3.29%	11.72%	16.08%
37	6.65%	9.97%	3.00%	3.00%	2.23%	3.35%	11.88%	16.32%
38	6.76%	10.14%	3.00%	3.00%	2.27%	3.41%	12.03%	16.55%
39	6.88%	10.32%	3.00%	3.00%	2.31%	3.47%	12.19%	16.79%

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

**Appendix A**

**Member Contribution Rates (Continued)**

**Safety Tier 2 Members' Contribution Rates Based on the December 31, 2012 Actuarial Valuation (as a % of payroll) - continued**

Entry Age	Basic Only		Cost Sharing Contributions		COLA Only		Total	
	First \$161	Over \$161*	First \$161	Over \$161*	First \$161	Over \$161*	First \$161	Over \$161*
40	7.00%	10.50%	3.00%	3.00%	2.35%	3.53%	12.35%	17.03%
41	7.12%	10.67%	3.00%	3.00%	2.39%	3.59%	12.51%	17.26%
42	7.21%	10.81%	3.00%	3.00%	2.42%	3.63%	12.63%	17.44%
43	7.27%	10.90%	3.00%	3.00%	2.44%	3.66%	12.71%	17.56%
44	7.29%	10.94%	3.00%	3.00%	2.45%	3.68%	12.74%	17.62%
45	7.27%	10.91%	3.00%	3.00%	2.45%	3.67%	12.72%	17.58%
46	7.19%	10.78%	3.00%	3.00%	2.41%	3.62%	12.60%	17.40%
47	7.05%	10.57%	3.00%	3.00%	2.37%	3.55%	12.42%	17.12%
48	7.30%	10.96%	3.00%	3.00%	2.45%	3.68%	12.75%	17.64%
49 & Over	7.58%	11.36%	3.00%	3.00%	2.55%	3.82%	13.13%	18.18%

\* Use these rates for Non-Integrated Members

Interest: 7.80% per annum  
 COLA: 2.00%  
 Mortality: RP-2000 Combined Healthy Mortality Table set back two years for males and one year for females, weighted 75% male and 25% female  
 Salary Increase: Inflation (3.50%) + Across-the-Board Increase (0.50%) + Merit (See Exhibit V)  
 COLA Loading Factor: 33.62%  
 Terminal Pay: 4.0%

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

**Appendix A**

**Member Contribution Rates (Continued)**

**Safety Tier 2C Members' Contribution Rates Based on the December 31, 2012 Actuarial Valuation (as a % of payroll)**

<u>Entry Age</u>	<u>Basic Only</u>		<u>COLA Only</u>		<u>Total</u>	
	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>
15	4.60%	6.91%	1.29%	1.94%	5.89%	8.85%
16	4.60%	6.91%	1.29%	1.94%	5.89%	8.85%
17	4.69%	7.03%	1.32%	1.98%	6.01%	9.01%
18	4.77%	7.15%	1.34%	2.01%	6.11%	9.16%
19	4.85%	7.28%	1.37%	2.05%	6.22%	9.33%
20	4.94%	7.40%	1.39%	2.08%	6.33%	9.48%
21	5.02%	7.53%	1.41%	2.12%	6.43%	9.65%
22	5.11%	7.66%	1.44%	2.16%	6.55%	9.82%
23	5.20%	7.80%	1.47%	2.20%	6.67%	10.00%
24	5.29%	7.93%	1.49%	2.23%	6.78%	10.16%
25	5.38%	8.07%	1.51%	2.27%	6.89%	10.34%
26	5.47%	8.21%	1.54%	2.31%	7.01%	10.52%
27	5.57%	8.35%	1.57%	2.35%	7.14%	10.70%
28	5.67%	8.50%	1.59%	2.39%	7.26%	10.89%
29	5.76%	8.65%	1.63%	2.44%	7.39%	11.09%
30	5.87%	8.80%	1.65%	2.48%	7.52%	11.28%
31	5.97%	8.95%	1.68%	2.52%	7.65%	11.47%
32	6.07%	9.11%	1.71%	2.57%	7.78%	11.68%
33	6.18%	9.28%	1.74%	2.61%	7.92%	11.89%
34	6.29%	9.44%	1.77%	2.66%	8.06%	12.10%
35	6.41%	9.61%	1.81%	2.71%	8.22%	12.32%
36	6.53%	9.79%	1.84%	2.76%	8.37%	12.55%
37	6.65%	9.97%	1.87%	2.81%	8.52%	12.78%
38	6.76%	10.14%	1.91%	2.86%	8.67%	13.00%
39	6.88%	10.32%	1.94%	2.91%	8.82%	13.23%

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

**Appendix A**

**Member Contribution Rates (Continued)**

**Safety Tier 2C Members' Contribution Rates Based on the December 31, 2012 Actuarial Valuation (as a % of payroll) - continued**

<u>Entry Age</u>	<u>Basic Only</u>		<u>COLA Only</u>		<u>Total</u>	
	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>
40	7.00%	10.50%	1.97%	2.96%	8.97%	13.46%
41	7.12%	10.67%	2.01%	3.01%	9.13%	13.68%
42	7.21%	10.81%	2.03%	3.04%	9.24%	13.85%
43	7.27%	10.90%	2.05%	3.07%	9.32%	13.97%
44	7.29%	10.94%	2.05%	3.08%	9.34%	14.02%
45	7.27%	10.91%	2.05%	3.07%	9.32%	13.98%
46	7.19%	10.78%	2.03%	3.04%	9.22%	13.82%
47	7.05%	10.57%	1.99%	2.98%	9.04%	13.55%
48	7.30%	10.96%	2.06%	3.09%	9.36%	14.05%
49 & Over	7.58%	11.36%	2.13%	3.20%	9.71%	14.56%

\* Use these rates for Non-Integrated Members

Interest: 7.80% per annum  
 COLA: 2.00%  
 Mortality: RP-2000 Combined Healthy Mortality Table set back two years for males and one year for females, weighted 75% male and 25% female  
 Salary Increase: Inflation (3.50%) + Across-the-Board Increase (0.50%) + Merit (See Exhibit V)  
 COLA Loading Factor: 28.16%  
 Terminal Pay: 4.0%

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

**Appendix A**

**Member Contribution Rates (Continued)**

**Safety Tier 2D Members' Contribution Rates for Members with Less than 5 Years of Vesting Service Based on the December 31, 2012 Actuarial Valuation**

(as a % of payroll)

Entry Age	Basic Only		Cost Sharing Contributions**		COLA Only		Total	
	First \$161	Over \$161*	First \$161	Over \$161*	First \$161	Over \$161*	First \$161	Over \$161*
15	4.60%	6.91%	5.00%	5.00%	1.45%	2.18%	11.05%	14.09%
16	4.60%	6.91%	5.00%	5.00%	1.45%	2.18%	11.05%	14.09%
17	4.69%	7.03%	5.00%	5.00%	1.48%	2.22%	11.17%	14.25%
18	4.77%	7.15%	5.00%	5.00%	1.50%	2.25%	11.27%	14.40%
19	4.85%	7.28%	5.00%	5.00%	1.53%	2.29%	11.38%	14.57%
20	4.94%	7.40%	5.00%	5.00%	1.55%	2.33%	11.49%	14.73%
21	5.02%	7.53%	5.00%	5.00%	1.58%	2.37%	11.60%	14.90%
22	5.11%	7.66%	5.00%	5.00%	1.61%	2.42%	11.72%	15.08%
23	5.20%	7.80%	5.00%	5.00%	1.64%	2.46%	11.84%	15.26%
24	5.29%	7.93%	5.00%	5.00%	1.67%	2.50%	11.96%	15.43%
25	5.38%	8.07%	5.00%	5.00%	1.69%	2.54%	12.07%	15.61%
26	5.47%	8.21%	5.00%	5.00%	1.73%	2.59%	12.20%	15.80%
27	5.57%	8.35%	5.00%	5.00%	1.75%	2.63%	12.32%	15.98%
28	5.67%	8.50%	5.00%	5.00%	1.79%	2.68%	12.46%	16.18%
29	5.76%	8.65%	5.00%	5.00%	1.82%	2.73%	12.58%	16.38%
30	5.87%	8.80%	5.00%	5.00%	1.85%	2.77%	12.72%	16.57%
31	5.97%	8.95%	5.00%	5.00%	1.88%	2.82%	12.85%	16.77%
32	6.07%	9.11%	5.00%	5.00%	1.91%	2.87%	12.98%	16.98%
33	6.18%	9.28%	5.00%	5.00%	1.95%	2.92%	13.13%	17.20%
34	6.29%	9.44%	5.00%	5.00%	1.99%	2.98%	13.28%	17.42%
35	6.41%	9.61%	5.00%	5.00%	2.02%	3.03%	13.43%	17.64%
36	6.53%	9.79%	5.00%	5.00%	2.06%	3.09%	13.59%	17.88%
37	6.65%	9.97%	5.00%	5.00%	2.09%	3.14%	13.74%	18.11%
38	6.76%	10.14%	5.00%	5.00%	2.13%	3.20%	13.89%	18.34%
39	6.88%	10.32%	5.00%	5.00%	2.17%	3.25%	14.05%	18.57%

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

**Appendix A**

**Member Contribution Rates (Continued)**

**Safety Tier 2D Members' Contribution Rates for Members with Less than 5 Years of Vesting Service Based on the December 31, 2012 Actuarial Valuation - continued**

(as a % of payroll)

Entry Age	Basic Only		Cost Sharing Contributions**		COLA Only		Total	
	First \$161	Over \$161*	First \$161	Over \$161*	First \$161	Over \$161*	First \$161	Over \$161*
40	7.00%	10.50%	5.00%	5.00%	2.21%	3.31%	14.21%	18.81%
41	7.12%	10.67%	5.00%	5.00%	2.24%	3.36%	14.36%	19.03%
42	7.21%	10.81%	5.00%	5.00%	2.27%	3.41%	14.48%	19.22%
43	7.27%	10.90%	5.00%	5.00%	2.29%	3.43%	14.56%	19.33%
44	7.29%	10.94%	5.00%	5.00%	2.30%	3.45%	14.59%	19.39%
45	7.27%	10.91%	5.00%	5.00%	2.29%	3.44%	14.56%	19.35%
46	7.19%	10.78%	5.00%	5.00%	2.27%	3.40%	14.46%	19.18%
47	7.05%	10.57%	5.00%	5.00%	2.22%	3.33%	14.27%	18.90%
48	7.30%	10.96%	5.00%	5.00%	2.30%	3.45%	14.60%	19.41%
49 & Over	7.58%	11.36%	5.00%	5.00%	2.39%	3.58%	14.97%	19.94%

\* Use these rates for Non-Integrated Members

\*\* The 5.00% cost sharing contribution is reduced to 3.00% for members with at least 5 years of vesting service.

Interest: 7.80% per annum  
 COLA: 2.00%  
 Mortality: RP-2000 Combined Healthy Mortality Table set back two years for males and one year for females, weighted 75% male and 25% female  
 Salary Increase: Inflation (3.50%) + Across-the-Board Increase (0.50%) + Merit (See Exhibit V)  
 COLA Loading Factor: 31.52%  
 Terminal Pay: 4.0%



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

**Appendix A**

**Member Contribution Rates (Continued)**

**Safety Tier 2D Members' Contribution Rates for Members with 5 or More Years of Vesting Service Based on the December 31, 2012 Actuarial Valuation**

(as a % of payroll)

<u>Entry Age</u>	<u>Basic Only</u>		<u>Cost Sharing Contributions</u>		<u>COLA Only</u>		<u>Total</u>	
	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>
15	4.60%	6.91%	3.00%	3.00%	1.45%	2.18%	9.05%	12.09%
16	4.60%	6.91%	3.00%	3.00%	1.45%	2.18%	9.05%	12.09%
17	4.69%	7.03%	3.00%	3.00%	1.48%	2.22%	9.17%	12.25%
18	4.77%	7.15%	3.00%	3.00%	1.50%	2.25%	9.27%	12.40%
19	4.85%	7.28%	3.00%	3.00%	1.53%	2.29%	9.38%	12.57%
20	4.94%	7.40%	3.00%	3.00%	1.55%	2.33%	9.49%	12.73%
21	5.02%	7.53%	3.00%	3.00%	1.58%	2.37%	9.60%	12.90%
22	5.11%	7.66%	3.00%	3.00%	1.61%	2.42%	9.72%	13.08%
23	5.20%	7.80%	3.00%	3.00%	1.64%	2.46%	9.84%	13.26%
24	5.29%	7.93%	3.00%	3.00%	1.67%	2.50%	9.96%	13.43%
25	5.38%	8.07%	3.00%	3.00%	1.69%	2.54%	10.07%	13.61%
26	5.47%	8.21%	3.00%	3.00%	1.73%	2.59%	10.20%	13.80%
27	5.57%	8.35%	3.00%	3.00%	1.75%	2.63%	10.32%	13.98%
28	5.67%	8.50%	3.00%	3.00%	1.79%	2.68%	10.46%	14.18%
29	5.76%	8.65%	3.00%	3.00%	1.82%	2.73%	10.58%	14.38%
30	5.87%	8.80%	3.00%	3.00%	1.85%	2.77%	10.72%	14.57%
31	5.97%	8.95%	3.00%	3.00%	1.88%	2.82%	10.85%	14.77%
32	6.07%	9.11%	3.00%	3.00%	1.91%	2.87%	10.98%	14.98%
33	6.18%	9.28%	3.00%	3.00%	1.95%	2.92%	11.13%	15.20%
34	6.29%	9.44%	3.00%	3.00%	1.99%	2.98%	11.28%	15.42%
35	6.41%	9.61%	3.00%	3.00%	2.02%	3.03%	11.43%	15.64%
36	6.53%	9.79%	3.00%	3.00%	2.06%	3.09%	11.59%	15.88%
37	6.65%	9.97%	3.00%	3.00%	2.09%	3.14%	11.74%	16.11%
38	6.76%	10.14%	3.00%	3.00%	2.13%	3.20%	11.89%	16.34%
39	6.88%	10.32%	3.00%	3.00%	2.17%	3.25%	12.05%	16.57%

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

**Appendix A**

**Member Contribution Rates (Continued)**

**Safety Tier 2D Members' Contribution Rates for Members with 5 or More Years of Vesting Service Based on the December 31, 2012 Actuarial Valuation – continued**  
(as a % of payroll)

<u>Entry Age</u>	<u>Basic Only</u>		<u>Cost Sharing Contributions</u>		<u>COLA Only</u>		<u>Total</u>	
	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>	<u>First \$161</u>	<u>Over \$161*</u>
40	7.00%	10.50%	3.00%	3.00%	2.21%	3.31%	12.21%	16.81%
41	7.12%	10.67%	3.00%	3.00%	2.24%	3.36%	12.36%	17.03%
42	7.21%	10.81%	3.00%	3.00%	2.27%	3.41%	12.48%	17.22%
43	7.27%	10.90%	3.00%	3.00%	2.29%	3.43%	12.56%	17.33%
44	7.29%	10.94%	3.00%	3.00%	2.30%	3.45%	12.59%	17.39%
45	7.27%	10.91%	3.00%	3.00%	2.29%	3.44%	12.56%	17.35%
46	7.19%	10.78%	3.00%	3.00%	2.27%	3.40%	12.46%	17.18%
47	7.05%	10.57%	3.00%	3.00%	2.22%	3.33%	12.27%	16.90%
48	7.30%	10.96%	3.00%	3.00%	2.30%	3.45%	12.60%	17.41%
49 & Over	7.58%	11.36%	3.00%	3.00%	2.39%	3.58%	12.97%	17.94%

\* Use these rates for Non-Integrated Members

Interest: 7.80% per annum  
 COLA: 2.00%  
 Mortality: RP-2000 Combined Healthy Mortality Table set back two years for males and one year for females, weighted 75% male and 25% female  
 Salary Increase: Inflation (3.50%) + Across-the-Board Increase (0.50%) + Merit (See Exhibit V)  
 COLA Loading Factor: 31.52%  
 Terminal Pay: 4.0%

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

**Appendix A**

**Member Contribution Rates (Continued)**

**Safety Tier 4 Members' Contribution Rates Based on the December 31, 2012 Actuarial Valuation (as a % of eligible payroll)\***

	Basic Only	COLA Only	Total
	<u>Eligible Pay</u>	<u>Eligible Pay</u>	<u>Eligible Pay</u>
All Safety Tier 4 Members	11.15%	2.60%	13.75%

Interest:	7.80% per annum
COLA:	2.00%
Mortality:	RP-2000 Combined Healthy Mortality Table set back two years for males and one year for females, weighted 75% male and 25% female
Salary Increase:	Inflation (3.50%) + Across-the-Board Increase (0.50%) + Merit (See Exhibit V)
COLA Loading Factor:	23.32%
Terminal Pay:	0.0%

\* It is our understanding that in the determination of pension benefits under the CalPEPRA formulas, the compensation that can be taken into account for 2013 is equal to the Social Security Taxable Wage Base or \$113,700. (For an employer that is not enrolled in Social Security, the maximum amount is \$136,440 or 120% of the Social Security Taxable Wage Base). (reference: Section 7522.10). These amounts should be adjusted for changes to the Consumer Price Index for All Urban Consumers after 2013. (reference: Section 7522.10(d))

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

**Appendix B**

**Projected Employer Contributions By Each Participating Employer**

Estimated Employer Contribution Requirement for Each Participating Employer in ACERA (\$000s)  
 Calculated Based on Projected Employer Compensation Used in the December 31, 2012 Actuarial Valuation

Dollar Contribution<sup>(1)</sup> - Based on December 31, 2012 Valuation

<u>Employer Name (Code)</u>	<b>General</b>				<b>Safety</b>				<u>Total</u>	
	<u>Tier 1</u>	<u>Tier 2</u>	<u>Tier 3</u>	<u>Tier 4</u>	<u>Tier 1</u>	<u>Tier 2</u>	<u>Tier 2C</u>	<u>Tier 2D</u>		<u>Tier 4</u>
Alameda County (101)	\$5,899	\$87,705		\$0	\$1,745	\$65,349	\$1,072	\$2,332	\$0	\$164,102
Medical Center (106)	1,176	40,177								41,353
Superior Court (632)	885	9,227								10,112
First 5 (714)		1,010								1,010
Housing Authority (103)	1,122									1,185
LARPD (104)	197	63	\$1,032							1,229
Office of Education (105)	18									18
<b>Total</b>	<b>\$9,297</b>	<b>\$138,182</b>	<b>\$1,032</b>	<b>\$0</b>	<b>\$1,745</b>	<b>\$65,349</b>	<b>\$1,072</b>	<b>\$2,332</b>	<b>\$0</b>	<b>\$219,009</b>

Dollar Contribution<sup>(1)</sup> - Based on December 31, 2011 Valuation

<u>Employer Name (Code)</u>	<b>General</b>				<b>Safety</b>				<u>Total</u>	
	<u>Tier 1</u>	<u>Tier 2</u>	<u>Tier 3</u>	<u>Tier 4</u>	<u>Tier 1</u>	<u>Tier 2</u>	<u>Tier 2C</u>	<u>Tier 2D</u>		<u>Tier 4</u>
Alameda County (101)	\$5,274	\$76,965		\$0	\$1,571	\$58,227	\$934	\$2,103	\$0	\$145,074
Medical Center (106)	1,049	35,155								36,204
Superior Court (632)	789	8,074								8,863
First 5 (714)		883								883
Housing Authority (103)	1,022	56								1,078
LARPD (104)	179		\$972							1,151
Office of Education (105)	16									16
<b>Total</b>	<b>\$8,329</b>	<b>\$121,133</b>	<b>\$972</b>	<b>\$0</b>	<b>\$1,571</b>	<b>\$58,227</b>	<b>\$934</b>	<b>\$2,103</b>	<b>\$0</b>	<b>\$193,269</b>

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

<sup>(1)</sup> Contribution calculated using projected compensation provided below for the December 31, 2012 valuation:

December 31, 2012 Projected Total Compensation (\$000s)

<u>Employer Name (Code)</u>	<b>General</b>				<b>Safety</b>				<u>Total</u>	
	<u>Tier 1</u>	<u>Tier 2</u>	<u>Tier 3</u>	<u>Tier 4</u>	<u>Tier 1</u>	<u>Tier 2</u>	<u>Tier 2C</u>	<u>Tier 2D</u>		<u>Tier 4</u>
Alameda County (101)	\$29,703	\$457,036		\$0	\$2,802	\$133,608	\$2,101	\$5,006	\$0	\$630,256
Medical Center (106)	5,804	204,987								210,791
Superior Court (632)	4,366	47,079								51,445
First 5 (714)		5,151								5,151
Housing Authority (103)	4,424	253								4,677
LARPD (104)	776		\$3,335							4,111
Office of Education (105)	69									69
<b>Total</b>	<b>\$45,142</b>	<b>\$714,506</b>	<b>\$3,335</b>	<b>\$0</b>	<b>\$2,802</b>	<b>\$133,608</b>	<b>\$2,101</b>	<b>\$5,006</b>	<b>\$0</b>	<b>\$906,500</b>

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