### **Alameda County Employees' Retirement Association**

Actuarial Valuation and Review as of December 31, 2011

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April 10, 2012

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, 2011. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2012-2013 and analyzes the preceding year's experience.

The census and financial information 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.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices, including Actuarial Standards of Practice (ASOPs) Nos. 4, 27, 35, 44, and all other relevant ASOPs. In our opinion, the combined operation of the assumptions and the methods applied in this valuation fairly represent past and anticipated future experience of the Association and meet the parameters required by GASB Statement 25. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate.

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.

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

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AW/kek

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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, 2011. 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, 2011, provided by the Retirement Association;
- > The assets of the Plan as of December 31, 2011, 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, 2011 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 continued with the Board's funding policy to amortize the Association's entire unfunded actuarial accrued liability as of December 31, 2011 over a declining 21-year period. The aggregate employer contribution rate calculated using the declining 21-year amortization period is 21.52% 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 adopted by the Board. 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, 2012 through June 30, 2013.

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

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

Ref: Pg. 50

- > In the December 31, 2010 valuation, the ratio of the valuation value of assets to actuarial accrued liabilities was 77.5%. In this December 31, 2011 valuation, the funding ratio has declined to 76.6%.
- > The Association's unfunded actuarial accrued liability (UAAL) as of December 31, 2010 was \$1,386.6 million. In this year's valuation, the UAAL has increased to \$1,490.8 million.

Ref: Pg. 8 and Pg. 45

- > The Plan has a net actuarial experience loss of about \$60.8 million. 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 \$4.4 million for the implicit retiree health benefit subsidy paid by the County for 2011 (note that this amount is an estimated amount provided by ACERA). The \$4.4 million together with the unused credit from prior years' transfer (the balance of prior transfers was about \$24.1 million as of December 31, 2011) have been amortized over 21 years.

Ref: Pg. 22 and Pg. 90

> The aggregate employer rate calculated in this valuation has increased from 20.72% of payroll to 21.52% of payroll. The reason for this change is primarily lower than expected return on investments (after smoothing), amortizing the prior year's UAAL over a smaller than expected projected total payroll, and the scheduled delay in implementing last year's employer contribution rates after the date of the valuation. These losses were partially offset by gains from: (i) lower than expected salary increases for active members, (ii) lower than expected COLA increases for retired members, (iii) data corrections regarding future continuance for retiree records, and (iv) changes in actuarial assumptions adopted by the Board as a result of the December 1, 2007 – November 30, 2010 Experience Study. 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. 23 and Pg. 74

> The <u>aggregate</u> member rate calculated in this valuation has decreased from 8.63% of payroll to 8.33% of payroll as a result of change in membership demographics and the changes in the actuarial assumptions as referenced above. A reconciliation of the Association's aggregate member rate is provided in Section 2, Subsection D (see Chart 16). The member rates have been updated to reflect the new service-based salary increase assumptions adopted by the Board as a result of the above mentioned Experience Study. The change from the prior age-based salary increase assumption has resulted in an increase in the member contribution rates for employees entering the Association at a relatively higher entry age. A comparison of the representative member rates determined under the new and the old assumptions is provided on page 74.

The detailed member rates are provided in Appendix A of this report. Note that for Safety Tier 2D members, the total member contribution rates shown in Appendix A include the 5.00% cost sharing contribution for members with less than 5 years of vesting service. For members with at least 5 years of vesting service, the total rates would be reduced by 2.00% to reflect the 3.00% (instead of 5.00%) cost sharing contribution paid by these members.

> As indicated in Section 2, Subsection B (see Chart 7) of this report, the total unrecognized investment loss as of December 31, 2011 is \$481.8 million (in the previous valuation, this amount was \$263.4 million). This investment loss 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 gains that may occur after December 31, 2011. 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 losses 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 increase in each of the next few years.

The deferred losses of \$481.8 million represent 9.5% of the market value of assets as of December 31, 2011. Unless offset by future investment gains or other favorable experience, the recognition of the \$481.8 million market loss 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 deferred losses were recognized immediately and entirely in the valuation value of assets, the funded percentage would decrease from 76.6% to 69.0%.
- If the deferred losses were recognized immediately and entirely in the valuation value of assets, the aggregate employer rate would increase from 21.52% to about 25.3% of payroll.
- > The actuarial valuation report as of December 31, 2011 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.
- > Effective February 6, 2011 for ACMEA Probation Mgrs. and effective March 6, 2011 for Teamsters Local Union 856, members in these groups can elect to enroll in either Safety Tier 2C (2% @ 50 formula) or Safety Tier 2D (3% @ 55 formula), with payment of additional member cost sharing contributions for Safety Tier 2D.

Effective September 30, 2011, all new members hired by the Housing Authority enter General Tier 2. Employer contribution rates for the General Tier 2 members employed by the District have now been provided in Section 2, Subsection D (see Chart 13).

Ref: Pg. 6

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

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.

	Decemb	per 31, 2011	December 31, 2010		
Employer Contribution Rates:		Estimated		Estimated	
<u>County</u>	Total Rate	Annual Amount (1)	Total Rate	Annual Amount (1	
General Tier 1	17.76%	\$6,361	17.61%	\$6,308	
General Tier 2	16.84	76,130	16.35	73,915	
Safety Tier 1	56.09	2,067	53.65	1,976	
Safety Tier 2	43.58	60,916	41.32	57,758	
Safety Tier 2C	44.45	666	41.14	615	
Safety Tier 2D	42.02	878	40.50	845	
County Combined	23.16	147,018	22.28	141,417	
ACMC/Court/First 5		,		ŕ	
General Tier 1	18.07	2,156	17.86	2,131	
General Tier 2	17.15	40,634	16.60	39,331	
District		,		,	
General Tier 1	23.11	1,243	22.74	1,224	
General Tier 2	22.19	10	21.48	10	
General Tier 3	29.15	950	24.66	803	
All Combined	21.52	192,011	20.72	184,916	
Average Member Contribution Rates:		Estimated		Estimated	
	Total Rate	Annual Amount (1)	Total Rate (2)	Annual Amount (	
General Tier 1	9.13%	\$4,851	9.90%	\$5,260	
General Tier 2	7.04	48,510	7.29	50,232	
General Tier 3	12.48	406	12.85	419	
Safety Tier 1	11.99	441	12.09	445	
Safety Tier 2	14.04	19,625	14.38	20,100	
Safety Tier 2C	11.91	178	11.94	179	
Safety Tier 2D	16.72	349	16.97	354	
All Categories Combined	8.33	74,360	8.63	76,989	
Funded Status:					
Actuarial Accrued Liability (3)	\$6,359,483		\$6,162,740		
Valuation Value of Assets (4)	4,868,689		4,776,128		
Funded Percentage	76.6%		77.5%		
Unfunded Actuarial Accrued Liability	\$1,490,794		\$1,386,612		
Key Economic Assumptions:					
Interest Rate	7.80%		7.90%		
Inflation Rate	3.50%		3.50%		
Across-the-Board Salary Increase	0.50%		0.50%		

<sup>(1)</sup> Based on December 31, 2011 projected annual compensation.

Average rates have been recalculated by applying the individual entry age based member rates determined in the December 31, 2010 valuation to the Association membership as of December 31, 2011.

<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

	December 31, 2011	December 31, 2010	Percentage Change
Active Members:			
Number of members	10,724	10,879	-1.4%
Average age	47.7	47.4	N/A
Average service	11.8	11.6	N/A
Projected total compensation	\$892,489,000	\$898,342,000	-0.7%
Average projected compensation	\$83,224	\$82,576	0.8%
Retired Member and Beneficiaries:			
Number of members:			
Service retired	6,000	5,702	5.2%
Disability retired	811	794	2.1%
Beneficiaries	1,095	1,062	3.1%
Total	7,906	7,558	4.6%
Average age	70.5	70.4	N/A
Average monthly benefit (1)	\$3,190	\$3,067	4.0%
Vested Terminated Members:			
Number of vested terminated members (2)	1,796	1,785	0.6%
Average age	48.5	48.2	N/A
Summary of Financial Data (dollar amounts in thousands):			
Market value of assets	\$5,074,398	\$5,224,495	-2.9%
Return on market value of assets	-1.04%	13.72%	N/A
Actuarial value of assets	\$5,556,243	\$5,487,858	1.2%
Return on actuarial value of assets	3.03%	2.26%	N/A
Valuation value of assets	\$4,868,689	\$4,776,128	1.9%
Return on valuation value of assets	3.15%	0.77%	N/A

<sup>(1)</sup> Excludes monthly benefits payable from the SRBR.

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

#### A. MEMBER DATA

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

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

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

CHART 1
Member Population: 2002 – 2011

Year Ended December 31	Active Members	Vested Terminated Members*	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
2002	11,338	1,141	5,996	0.63
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

<sup>\*</sup> Includes terminated members due a refund of member contributions

#### **Active Members**

Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there were 10,724 active members with an average age of 47.7 years, average years of service of 11.8 and average compensation of \$83,224. The 10,879 active members in the prior valuation had an average age of 47.4 years, average service of 11.6 and average compensation of \$82,576.

#### **Inactive Members**

In this year's valuation, there were 1,796 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 1,785 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, 2011 based on census data collected as of November 30, 2011.

CHART 2
Distribution of Active Members by Age as of December 31, 2011

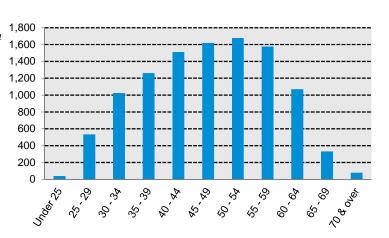
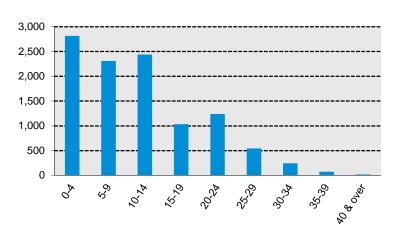


CHART 3
Distribution of Active Members by Years of Service as of December 31, 2011



#### **Retired Members and Beneficiaries**

As of December 31, 2011, 6,811 retired members and 1,095 beneficiaries were receiving total monthly benefits of \$25,221,884. For comparison, in the previous valuation, there were 6,496 retired members and 1,062 beneficiaries receiving monthly benefits of \$23,181,626. 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, 2011 based on census data collected as of November 30, 2011.

■ Disability
■ Regular

CHART 4
Distribution of Retired Members (Excl. Beneficiaries) by Type and by Monthly Amount as of December 31, 2011

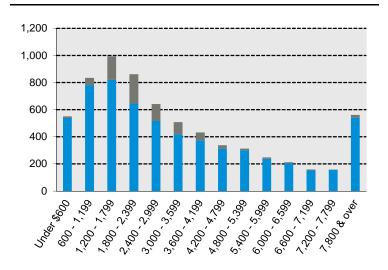
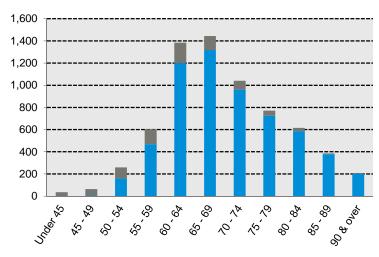


CHART 5
Distribution of Retired Members (Excl. Beneficiaries) by Type and by Age as of December 31, 2011



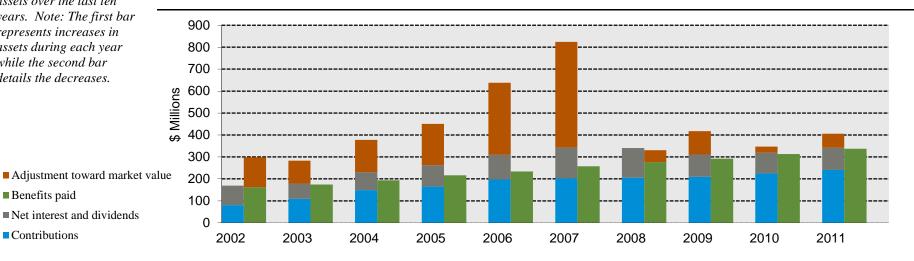
#### **B. FINANCIAL INFORMATION**

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, 2002 through 2011



■ Benefits paid

Contributions

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

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

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

CHART 7

Determination of Actuarial Value of Assets for Year Ended December 31, 2011

Six Month Period		Total Actual Market	Expected Market	Investment	Deferred	Deferred			
	From	То	Return (net)	Return (net)	Gain (Loss)	Factor	Return		
	01/01/2007	06/30/2007	\$365,085,677	\$205,298,089	\$159,787,588	0.0	\$0		
	07/01/2007	12/31/2007	54,493,128	221,394,733	(166,901,605)	0.1	(16,690,161)		
	01/01/2008	06/30/2008	(440,360,426)	222,347,812	(662,708,239)	0.2	(132,541,648)		
	07/01/2008	12/31/2008	(1,257,698,668)	203,277,365	(1,460,976,033)	0.3	(438,292,810)		
	01/01/2009	06/30/2009	252,817,171	151,382,559	101,434,612	0.4	40,573,845		
	07/01/2009	12/31/2009	700,848,916	159,815,655	541,033,261	0.5	270,516,631		
	01/01/2010	06/30/2010	(171,083,230)	186,202,514	(357,285,743)	0.6	(214,371,446)		
	07/01/2010	12/31/2010	806,700,469	175,307,561	631,392,909	0.7	441,975,036		
	01/01/2011	06/30/2011	274,085,462	205,402,533	68,682,929	0.8	54,946,343		
	07/01/2011	12/31/2011	(327,895,627)	214,282,574	(542,178,201)	0.9	(487,960,381)		
1.	Total Deferred Re	eturn					\$(481,844,591)*		
2.	Net Market Value	;					5,074,398,182		
3.	Actuarial Value o	f Assets (Item 2 – Ite	em 1)				5,556,242,772		
4.	Actuarial Value a	s a Percentage of Ma	rket Value (Before Cor	ridor; Item 3 / Item 2)			109.5%		
5.	Actuarial Value o	f Assets - Corridor I	Limits:						
	a. Lower Limit	- 60% of Net Marke	et Value				3,044,638,909		
	b. Upper Limit	<ul> <li>140% of Net Mark</li> </ul>	tet Value				7,104,157,455		
6.	Actuarial Value o	f Assets (within corr	idor)				5,556,242,772		
7.	Non-valuation res	erves and designatio	ns:						
	a. Reserve for l	Interest Fluctuations	(Contingency Reserve)	, but no less than \$0			77,597,803		
	b. Supplementa	l Retirees Benefit Re	eserve (SRBR)				602,906,726		
	c. Other Non-Valuation Reserves (Death Benefit-Burial & 401(h) Reserves) 11,460,484								
	d. SRBR Trans	fer to Employer Adv	ance Reserve**				(4,411,206)		
	e. Subtotal						\$687,553,807		
8.	Valuation Value of	of Assets (Item 6 – It	em 7e)				\$4,868,688,966		

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

Note: Results may not add due to rounding.

<sup>\*</sup> The amounts of deferred return that will be recognized in each subsequent valuation are as follows: 12/31/12: \$(352,811,062) 12/31/13: \$(57,481,650) 12/31/14: \$14,225,705 12/31/15: \$(31,559,764) 12/31/16: \$(54,217,820)

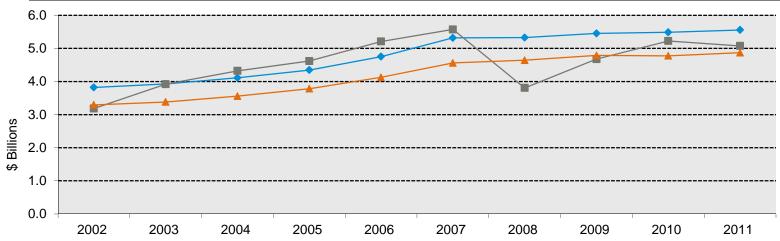
<sup>\*\*</sup> Estimate provided by ACERA.

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, 2002 – 2011



Actuarial Value

Market Value

Valuation Value

#### C. ACTUARIAL EXPERIENCE

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

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

requirements to remain stable, assumptions should approximate experience.

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

The total experience loss was \$60.8 million, a net loss of \$225.4 million from investments and a gain of \$164.6 million from all other sources. The net experience variation from individual sources other than investments was 2.6% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

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

#### **CHART 9**

#### Actuarial Experience for Year Ended December 31, 2011

1.	Net loss from investments <sup>(1)</sup>	\$225,446,000
2.	Net gain from other experience (2)	(164,615,000)
3.	Net experience loss: $(1) + (2)$	\$60,831,000

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

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

#### **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 7.90% (for the December 31, 2010 valuation). The actual rate of return on a valuation value of assets basis for the 2011 plan year was 3.15%.

Since the actual return for the year was less than the assumed return, ACERA experienced an actuarial loss during the year ended December 31, 2011 with regard to its investments.

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

#### **CHART 10**

Investment Experience for Year Ended December 31, 2011 – Valuation Value, Actuarial Value, and Market Value of Assets

	Valuation Value	Actuarial Value	Market Value
1. Actual return	\$149,447,325	\$164,671,046	\$(53,810,165)
2. Average value of assets	4,745,479,451	5,439,714,993	5,176,351,614
3. Actual rate of return: $(1) \div (2)$	3.15%	3.03%	-1.04%
4. Assumed rate of return	7.90%	7.90%	7.90%
5. Expected return: (2) x (4)	374,892,877	429,737,484	408,931,777
6. Actuarial gain/(loss): $(1) - (5)$	<u>\$(225,445,552)</u>	<u>\$(265,066,438)</u>	<u>\$(462,741,942)</u>

Because actuarial planning is long term, it is useful to see how the assumed investment rate of return has followed actual experience over time. The chart below shows the rate of return on an actuarial, valuation, and market basis for the last ten years. Based on the assumptions adopted by the Board for the December 31, 2011 valuation, the investment return assumption decreased from 7.90% to 7.80%.

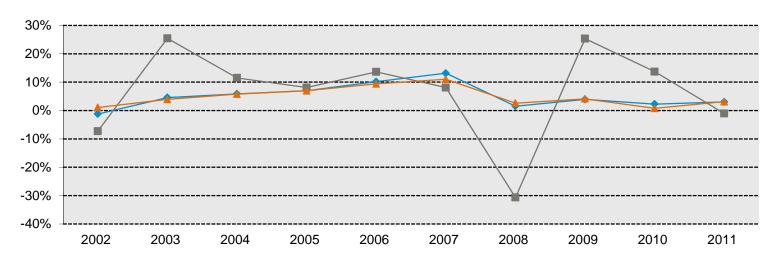
CHART 11
Investment Return – Valuation Value, Actuarial Value and Market Value: 2002 - 2011

	Valuation Value Investment Return		Actuaria Investmen		Market Value Investment Return		
Year Ended December 31	Amount	Percent	Amount	Percent	Amount	Percent	
2002	\$ 35,537,359	1.08%	-\$47,643,106	-1.22%	-\$252,420,614	-7.26%	
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%	
Ten-Year Average Return		4.84%		4.96%		5.35%	

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.

CHART 12

Market, Actuarial and Valuation Value Rates of Return for Years Ended December 31, 2002 - 2011



Actuarial Value

Market Value

Valuation Value

#### **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, 2011 amounted to \$164.6 million which is 2.6% of the actuarial accrued liability. See Exhibit H for a detailed development of the Unfunded Actuarial Accrued Liability.

#### D. EMPLOYER AND MEMBER CONTRIBUTIONS

Employer contributions consist of two components:

Normal Cost

The annual contribution rate that, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement-related benefits. Accumulation includes annual crediting of interest at the assumed investment earning rate. The contribution rate is 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). The current UAAL is being recognized over a declining 21-year period.

The recommended employer contributions are provided on Chart 13.

#### Member Contributions

Articles 6 and 6.8 of the 1937 Act define the methodology to be used in the calculation of member basic contribution rates for General members and Safety members, respectively. The basic contribution rate is determined so that the accumulation of a member's basic contributions made in a given year until a certain age will be sufficient to fund an annuity at that age that is equal to 1/100 of Final Average Salary for General Tier 1, General Tier 3, and all Safety 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 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.

The member contribution rates provided in Appendix A.

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

			Decemb	er 31, 2011			December	31, 2010
County Only	В	ASIC	COLA TOTAL		TAL	BASIC AND COLA COMBINED		
	<u>Rate</u>	Estimated Annual <u>Amount</u> *	<u>Rate</u>	Estimated Annual <u>Amount*</u>	<u>Rate</u>	Estimated Annual <u>Amount*</u>	<u>Rate</u>	Estimated Annual <u>Amount*</u>
General Tier 1 Members								
Normal Cost	7.41%	\$2,654	2.22%	\$795	9.63%	\$3,449	10.39%	\$3,722
UAAL (Before POB Credit)	11.02%	3,947	2.46%	881	13.48%	4,828	12.35%	4,424
Pension Obligation Bond Credit	-3.45%	-1,236	-1.59%	-569	-5.04%	-1,805	-4.88%	-1,748
Implicit Retiree Health Benefit Subsidy	<u>-0.31%</u>	<u>-111</u>	0.00%	<u>0</u>	<u>-0.31%</u>	<u>-111</u>	<u>-0.25%</u>	<u>-90</u>
Total Contribution	14.67%	\$5,254	3.09%	\$1,107	17.76%	\$6,361	17.61%	\$6,308
General Tier 2 Members								
Normal Cost	7.37%	\$33,318	1.34%	\$6,058	8.71%	\$39,376	9.13%	\$41,275
UAAL (Before POB Credit)	11.02%	49,819	2.46%	11,121	13.48%	60,940	12.35%	55,832
Pension Obligation Bond Credit	-3.45%	-15,597	-1.59%	-7,188	-5.04%	-22,785	-4.88%	-22,062
Implicit Retiree Health Benefit Subsidy	<u>-0.31%</u>	<u>-1,401</u>	0.00%	<u>0</u>	<u>-0.31%</u>	<u>-1,401</u>	<u>-0.25%</u>	<u>-1,130</u>
Total Contribution	14.63%	\$66,139	2.21%	\$9,991	16.84%	\$76,130	16.35%	\$73,915
Safety Tier 1 Members								
Normal Cost	22.67%	\$835	8.18%	\$301	30.85%	\$1,136	30.75%	\$1,132
Member Cost Sharing Contributions	-3.00%	-110	0.00%	0	-3.00%	-110	-3.00%	-110
(Adjusted for Refunds)								
UAAL (Before POB Credit)	26.90%	990	6.36%	235	33.26%	1,225	30.60%	1,127
Pension Obligation Bond Credit	-2.92%	-108	-1.79%	-65	-4.71%	-173	-4.45%	-164
Implicit Retiree Health Benefit Subsidy	<u>-0.31%</u>	<u>-11</u>	0.00%	<u>0</u>	<u>-0.31%</u>	<u>-11</u>	<u>-0.25%</u>	<u>-9</u>
Total Contribution	43.34%	\$1,596	12.75%	\$471	56.09%	\$2,067	53.65%	\$1,976



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

**CHART 13 (continued)** 

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

December 31, 2011

			20001112	o. o., <b>_</b> o			2000	_0.0
County Only	В	ASIC	C	DLA	то	TAL	BASIC AN COMB	
	Rate	Estimated Annual <u>Amount</u> *	<u>Rate</u>	Estimated Annual <u>Amount*</u>	<u>Rate</u>	Estimated Annual <u>Amount*</u>	<u>Rate</u>	Estimated Annual <u>Amount*</u>
Safety Tier 2 Members								
Normal Cost	15.36%	\$21,470	2.93%	\$4,096	18.29%	\$25,566	18.37%	\$25,678
Member Cost Sharing Contributions	-2.95%	-4,124	0.00%	0	-2.95%	-4,124	-2.95%	-4,124
(Adjusted for Refunds)								
UAAL (Before POB Credit)	26.90%	37,601	6.36%	8,890	33.26%	46,491	30.60%	42,773
Pension Obligation Bond Credit	-2.92%	-4,082	-1.79%	-2,502	-4.71%	-6,584	-4.45%	-6,220
Implicit Retiree Health Benefit Subsidy	<u>-0.31%</u>	<u>-433</u>	0.00%	<u>0</u>	<u>-0.31%</u>	<u>-433</u>	<u>-0.25%</u>	<u>-349</u>
Total Contribution	36.08%	\$50,432	7.50%	\$10,484	43.58%	\$60,916	41.32%	\$57,758
Safety Tier 2C Members								
Normal Cost	13.51%	\$202	2.70%	\$41	16.21%	\$243	15.24%	\$228
Member Cost Sharing Contributions	0.00%	0	0.00%	0	0.00%	0	0.00%	0
(Adjusted for Refunds)								
UAAL (Before POB Credit)	26.90%	402	6.36%	96	33.26%	498	30.60%	458
Pension Obligation Bond Credit	-2.92%	-44	-1.79%	-26	-4.71%	-70	-4.45%	-67
Implicit Retiree Health Benefit Subsidy	<u>-0.31%</u>	<u>-5</u>	0.00%	<u>0</u>	<u>-0.31%</u>	<u>-5</u>	<u>-0.25%</u>	<u>-4</u>
Total Contribution	37.18%	\$555	7.27%	\$111	44.45%	\$666	41.14%	\$615



December 31, 2010

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

**CHART 13 (continued)** 

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

December 31, 2011 **December 31, 2010** BASIC AND COLA **County Only BASIC COLA** TOTAL **COMBINED Estimated Estimated Estimated Estimated** Annual Annual Annual Annual Amount\* Amount\* Amount\* Rate Amount\* Rate Rate Rate **Safety Tier 2D Members** Normal Cost 15.53% \$324 2.97% \$62 18.50% \$386 19.44% \$406 Member Cost Sharing Contributions -4.72% -98 0.00% 0 -4.72% -98 -4.84% -101 (Adjusted for Refunds) UAAL (Before POB Credit) 26.90% 561 6.36% 133 33.26% 694 30.60% 638 Pension Obligation Bond Credit -2.92% -61 -1.79% -37 -4.71% -98 -4.45% -93 Implicit Retiree Health Benefit Subsidy -0.31% 0.00% 0 -0.31% -0.25% <u>-6</u> <u>-6</u> <u>-5</u> **Total Contribution** 34.48% \$720 7.54% \$158 42.02% \$878 40.50% \$845 **All County Categories Combined** Normal Cost 9.26% \$58,803 1.79% \$72,441 \$11.353 11.05% \$70,156 11.41% Member Cost Sharing Contributions -0.68% -\$4,332 0.00% 0 -0.68% -\$4,335 -0.68% -\$4,332 (Adjusted for Refunds) UAAL (Before POB Credit) 14.70% 16.58% 93,320 3.36% 21,356 18.06% 114,676 105,252 Pension Obligation Bond Credit -3.33% -21,128 -1.63% -10,387 -4.96% -31,515 -4.78% -30,354 Implicit Retiree Health Benefit Subsidy -0.31% -1,967 0.00% 0 -0.31% -1,967-0.25% -1,587**Total Contribution** \$22,322 \$147,018 \$141,417 19.64% \$124,696 3.52% 23.16% 22.28%



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

CHART 13 (continued)

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

			Decembe	er 31, 2011			December	31, 2010
ACMC, Court & First 5 Only	В	ASIC	C	DLA	то	TAL	BASIC AN COMB	
	<u>Rate</u>	Estimated Annual <u>Amount*</u>	<u>Rate</u>	Estimated Annual <u>Amount*</u>	<u>Rate</u>	Estimated Annual <u>Amount*</u>	<u>Rate</u>	Estimated Annual <u>Amount*</u>
General Tier 1 Members								
Normal Cost	7.41%	\$884	2.22%	\$265	9.63%	\$1,149	10.39%	\$1,240
UAAL (Before POB Credit)	11.02%	1,315	2.46%	293	13.48%	1,608	12.35%	1,473
Pension Obligation Bond Credit	<u>-3.45%</u>	<u>-412</u>	<u>-1.59%</u>	<u>-189</u>	<u>-5.04%</u>	<u>-601</u>	<u>-4.88%</u>	<u>-582</u>
Total Contribution	14.98%	\$1,787	3.09%	\$369	18.07%	\$2,156	17.86%	\$2,131
General Tier 2 Members								
Normal Cost	7.37%	\$17,462	1.34%	\$3,175	8.71%	\$20,637	9.13%	\$21,632
UAAL (Before POB Credit)	11.02%	26,110	2.46%	5,828	13.48%	31,938	12.35%	29,261
Pension Obligation Bond Credit	<u>-3.45%</u>	<u>-8,174</u>	<u>-1.59%</u>	<u>-3,767</u>	<u>-5.04%</u>	<u>-11,941</u>	<u>-4.88%</u>	<u>-11,562</u>
Total Contribution	14.94%	\$35,398	2.21%	\$5,236	17.15%	\$40,634	16.60%	\$39,331

CHART 13 (continued)

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

			Decembe	er 31, 2011			December	31, 2010
Other Districts	В	ASIC	CC	DLA	то	TAL	BASIC AN COMB	
	<u>Rate</u>	Estimated Annual <u>Amount*</u>	<u>Rate</u>	Estimated Annual <u>Amount*</u>	<u>Rate</u>	Estimated Annual <u>Amount*</u>	<u>Rate</u>	Estimated Annual <u>Amount*</u>
General Tier 1 Members								
Normal Cost	7.41%	\$399	2.22%	\$119	9.63%	\$518	10.39%	\$559
UAAL	11.02%	<u>593</u>	2.46%	<u>132</u>	13.48%	<u>725</u>	12.35%	<u>665</u>
Total Contribution	18.43%	\$992	4.68%	\$251	23.11%	\$1,243	22.74%	\$1,224
General Tier 2 Members								
Normal Cost	7.37%	\$3	1.34%	\$1	8.71%	\$4	9.13%	\$4
UAAL	11.02%	<u>5</u>	2.46%	<u>1</u>	13.48%	<u>6</u>	12.35%	<u>6</u>
Total Contribution	18.39%	\$8	3.80%	\$2	22.19%	\$10	21.48%	\$10
General Tier 3 Members								
Normal Cost	10.68%	\$348	3.44%	\$112	14.12%	\$460	14.58%	\$475
UAAL	<u>11.85%</u>	<u>386</u>	3.18%	<u>104</u>	15.03%	<u>\$490</u>	10.08%	<u>328</u>
Total Contribution	22.53%	\$734	6.62%	\$216	29.15%	\$950	24.66%	\$803
All Categories Combined								
All Categories Combined								
Normal Cost (Net)	8.24%	\$73,567	1.69%	\$15,025	9.93%	\$88,592	10.31%	\$92,016
UAAL (Net)	10.09%	90,048	1.50%	<u>13,371</u>	11.59%	103,419	10.41%	92,900
Total Contribution	18.33%	\$163,615	3.19%	\$28,396	21.52%	\$192,011	20.72%	\$184,916

<sup>\*</sup> Amounts are in thousands and are based on the December 31, 2011 annual payroll (also in thousands) shown on the following page.



#### **CHART 13 (continued)**

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

#### Payroll Breakdown

	County Only	ACMC, Court <u>&amp; First 5</u>	Other <u>Districts</u>	<u>Total</u>
General Tier 1	\$35,819	\$11,930	\$5,382	\$53,131
General Tier 2	452,080	236,932	45	689,057
General Tier 3			3,257	3,257
Safety Tier 1	3,682			3,682
Safety Tier 2	139,780			139,780
Safety Tier 2C	1,496			1,496
Safety Tier 2D	2,086			2,086
Total	\$634,943	\$248,862	\$8,684	\$892,489

#### **CHART 14**

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

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

	General	Safety
Service and non-service connected disability benefits	11%	20%
Service retirement and other benefits	89%	80%
	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.

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The employer contribution rates as of December 31, 2011 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, 2010 to December 31, 2011 (Dollars in Thousands)

	Contribution Rate	Estimated Amount*
Recommended Contribution Rate as of December 31, 2010	20.72%	\$184,916
Effect of actuarial experience during 2011:		
1. Effect of investment loss	1.76%	\$15,708
2. Effect of lower than expected salary increases for actives	-0.83	-7,408
3. Effect of amortizing prior year's UAAL over a smaller than expected projected total payroll	0.45	4,016
4. Effect of lower than expected COLA increases for retirees and beneficiaries	-0.09	-803
5. Effect of data correction (gain)/loss**	-0.33	-2,945
5. Effect of other experience (gain)/loss (primarily due to scheduled delay in implementing contribution rate after date of valuation)	0.24	2,097
7. Effect of change in assumptions	-0.40	-3,570
Subtotal	0.80%	\$7,095
Recommended Contribution Rate as of December 31, 2011	21.52%	\$192,011

Based on December 31, 2011 projected compensation.

<sup>\*\*</sup> Following directions provided by ACERA, some retirees who were previously assumed to be married are now reclassified as single with no beneficiary eligible for an automatic continuance benefit.

The member contribution rates as of December 31, 2011 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.

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

# CHART 16 Reconciliation of Recommended Member Contribution from December 31, 2010 to December 31, 2011 (Dollar Amounts in Thousands)

	Contribution Rate	Estimated Amount*
Average Contribution Rate as of December 31, 2010	8.63%	\$76,989
Effect of change in membership demographics	-0.01%	-67
2. Effect of change in actuarial assumptions	-0.29%	-2,562
Average Contribution Rate as of December 31, 2011	8.33%	\$74,360

<sup>\*</sup> Based on December 31, 2011 projected compensation.

#### 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, 2010 was 77.5%. This year's funded ratio decreased to 76.6%.

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

These graphs show key GASB factors.

CHART 17
Required Versus Actual Contributions

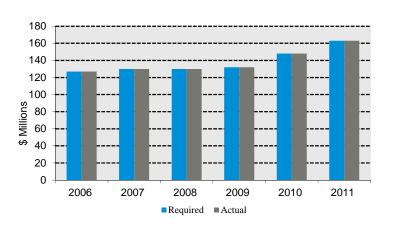
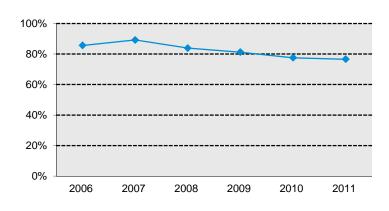


CHART 18 Funded Ratio



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

EXHIBIT A

Table of Plan Coverage
i. General Tier 1

	Year Ended	Year Ended December 31		
Category	2011	2010	Change From Prior Year	
Active members in valuation				
Number	607	726	-16.4%	
Average age	57.3	57.1	N/A	
Average service	27.6	27.2	N/A	
Projected total compensation	\$53,130,746	\$63,133,789	-15.8%	
Projected average compensation	\$87,530	\$86,961	0.7%	
Member account balances	\$178,694,839	\$209,979,437	-14.9%	
Total active vested members	580	698	-16.9%	
Vested terminated members				
Number	130	155	-16.1%	
Average age	57.5	57.5	N/A	
Retired members				
Number in pay status	3,588	3,572	0.4%	
Average age	74.0	73.9	N/A	
Average monthly benefit <sup>(1)</sup>	\$3,518	\$3,349	5.0%	
Disabled members				
Number in pay status	206	213	-3.3%	
Average age	69.5	68.6	N/A	
Average monthly benefit <sup>(1)</sup>	\$2,510	\$2,454	2.3%	
Beneficiaries				
Number in pay status	771	771	0.0%	
Average age	78.1	77.9	N/A	
Average monthly benefit <sup>(1)</sup>	\$1,582	\$1,514	4.5%	

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

Note: Based on the data provided for the December 31, 2011 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

	Year Ended	Year Ended December 31		
Category	2011	2010	– Change From Prior Year	
Active members in valuation				
Number	8,627	8,615	0.1%	
Average age	47.8	47.5	N/A	
Average service	10.7	10.4	N/A	
Projected total compensation	\$689,056,879	\$680,863,332	1.2%	
Projected average compensation	\$79,872	\$79,032	1.1%	
Member account balances	\$554,064,537	\$530,810,204	4.4%	
Total active vested members	6,182	6,020	2.7%	
Vested terminated members				
Number	1,502	1,461	2.8%	
Average age	48.0	47.6	N/A	
Retired members				
Number in pay status	1,460	1,248	17.0%	
Average age	67.1	66.9	N/A	
Average monthly benefit <sup>(1)</sup>	\$1,912	\$1,764	8.4%	
Disabled members				
Number in pay status	392	370	5.9%	
Average age	59.8	59.4	N/A	
Average monthly benefit <sup>(1)</sup>	\$2,068	\$2,022	2.3%	
Beneficiaries				
Number in pay status	127	114	11.4%	
Average age	59.7	59.0	N/A	
Average monthly benefit <sup>(1)</sup>	\$1,101	\$1,072	2.7%	

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

Note: Based on the data provided for the December 31, 2011 actuarial valuation, the average age at retirement for the General Tier 2 service retirees and disabled retirees was 61.5 and 50.4, respectively.

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

EXHIBIT A

Table of Plan Coverage
iii. General Tier 3

**Year Ended December 31 Change From** Category **Prior Year** 2011 2010 **Active members in valuation** Number 49 50 -2.0% 49.9 49.0 Average age N/A Average service 11.0 11.1 N/A Projected total compensation \$3,256,851 \$3,339,024 -2.5% Projected average compensation \$66,466 \$66,780 -0.5% Member account balances \$4,664,633 \$4,888,178 -4.6% Total active vested members 0.0% Vested terminated members 3 100% Number 6 Average age 44.9 43.1 N/A Retired members 7 Number in pay status 10 42.9% Average age 60.8 61.0 N/A Average monthly benefit<sup>(1)</sup> \$5,109 \$5,439 -6.1% Disabled members 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 Beneficiaries 0 0 Number in pay status N/A N/A Average age N/A N/A Average monthly benefit<sup>(1)</sup> N/A N/A N/A

Note: Based on the data provided for the December 31, 2011 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 59.8 and 51.0, respectively.

<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
iv. Safety Tier 1

	Year Ended	December 31	
Category	2011	2010	– Change From Prior Year
Active members in valuation			
Number	26	41	-36.6%
Average age	56.1	55.6	N/A
Average service	25.5	26.3	N/A
Projected total compensation	\$3,682,417	\$5,715,529	-35.6%
Projected average compensation	\$141,631	\$139,403	1.6%
Member account balances	\$12,256,302	\$19,735,613	-37.9%
Total active vested members	26	41	-36.6%
Vested terminated members			
Number	21	25	-16.0%
Average age	53.5	52.7	N/A
Retired members			
Number in pay status	685	682	0.4%
Average age	66.8	66.2	N/A
Average monthly benefit <sup>(1)</sup>	\$6,628	\$6,418	3.3%
Disabled members			
Number in pay status	108	108	0.0%
Average age	64.5	64.0	N/A
Average monthly benefit <sup>(1)</sup>	\$4,742	\$4,634	2.3%
Beneficiaries			
Number in pay status	153	141	8.5%
Average age	71.2	70.6	N/A
Average monthly benefit <sup>(1)</sup>	\$2,496	\$2,381	4.8%

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

Note: Based on the data provided for the December 31, 2011 actuarial valuation, the average age at retirement for the Safety Tier 1 service retirees and disabled retirees was 54.9 and 48.4, respectively.

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

EXHIBIT A

Table of Plan Coverage
v. Safety Tier 2

	Year Ended	December 31	
Category	2011	2010	– Change From Prior Year
Active members in valuation			
Number	1,372	1,439	-4.7%
Average age	42.3	41.9	N/A
Average service	11.4	10.9	N/A
Projected total compensation	\$139,780,270	\$144,749,126	-3.4%
Projected average compensation	\$101,881	\$100,590	1.3%
Member account balances	\$193,458,419	\$188,196,640	2.8%
Total active vested members	1,089	1,040	4.7%
Vested terminated members			
Number	137	141	-2.8%
Average age	44.4	44.0	N/A
Retired members			
Number in pay status	257	193	33.2%
Average age	60.6	60.8	N/A
Average monthly benefit <sup>(1)</sup>	\$4,703	\$4,278	9.9%
Disabled members			
Number in pay status	105	103	1.9%
Average age	55.5	54.6	N/A
Average monthly benefit <sup>(1)</sup>	\$3,277	\$3,087	6.2%
Beneficiaries			
Number in pay status	44	36	22.2%
Average age	51.7	50.9	N/A
Average monthly benefit <sup>(1)</sup>	\$1,884	\$1,763	6.9%

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

Note: Based on the data provided for the December 31, 2011 actuarial valuation, the average age at retirement for the Safety Tier 2 service retirees and disabled retirees was 56.4 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

	Year Ended D	ecember 31	
Category	2011	2010	– Change From Prior Year
Active members in valuation			
Number	18	4	350.0%
Average age	38.1	29.2	N/A
Average service	1.7	1.3	N/A
Projected total compensation	\$1,496,012	\$274,074	445.8%
Projected average compensation	\$83,112	\$68,519	21.3%
Member account balances	\$175,771	\$20,036	777.3%
Total active vested members	2	0	N/A
Vested terminated members			
Number	0	0	N/A
Average age	N/A	N/A	N/A
Retired members			
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
Disabled members			
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
Beneficiaries			
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

	Year Ended D	ecember 31	
Category	2011	2010	– Change From Prior Year
Active members in valuation			
Number	25	4	525.0%
Average age	35.8	34.5	N/A
Average service	1.9	2.1	N/A
Projected total compensation	\$2,085,926	\$266,851	681.7%
Projected average compensation	\$83,437	\$66,713	25.1%
Member account balances	\$303,688	\$33,477	807.2%
Total active vested members	2	0	N/A
Vested terminated members			
Number	0	0	N/A
Average age	N/A	N/A	N/A
Retired members			
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
Disabled members			
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
Beneficiaries			
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 59.1 and 50.0, respectively.

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

**EXHIBIT B** 

## i. General Tier 1

					Years of	Service				
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25										
25 - 29	5	5								
	\$53,852	\$53,852								
30 - 34	4	3	1							
	59,731	55,111	\$73,590							
35 - 39	6	5	1							
	62,753	61,560	68,718							
40 - 44	8	3	5							
	68,766	68,859	68,711							
45 - 49	26	3	5	1	2	1	11	3		
	67,083	56,727	60,458	\$68,131	\$59,593	\$55,095	\$71,364	\$81,427		
50 - 54	106	4	4	5	7	14	27	44	1	
	80,754	65,588	73,311	76,535	80,024	86,186	90,727	75,541	\$81,437	
55 - 59	257	2	5	3	12	21	59	114	38	3
	88,914	54,957	85,690	66,989	95,558	77,467	95,905	89,881	84,380	\$75,650
60 - 64	161	2	7	4	6	18	36	53	29	6
	96,057	89,001	90,885	86,241	86,089	95,054	102,234	92,737	99,918	97,553
65 - 69	27		3				6	9	4	5
	94,064		75,752				100,063	84,539	59,427	142,707
70 & over	7							2		5
	76,573							55,651		84,941
Total	607	27	31	13	27	54	139	225	72	19
	\$87,530	\$61,830	\$76,558	\$76,672	\$86,762	\$85,175	\$94,776	\$87,119	\$89,211	\$102,658

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

**EXHIBIT B** 

ii. General Tier 2

		Years of Service											
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35 & over				
Under 25	35	35											
	\$51,663	\$51,663											
25 - 29	412	355	56	1									
	60,771	60,975	\$59,631	\$52,413									
30 - 34	815	492	249	73	1								
	71,099	71,765	72,037	63,733	\$48,198								
35 - 39	955	365	323	248	19								
	76,920	74,797	81,299	74,872	69,988								
40 - 44	1,233	317	323	394	140	58	1						
	81,342	79,702	82,876	82,466	84,049	\$67,461	\$89,377						
45 - 49	1,315	292	251	345	171	199	57						
	81,769	81,386	84,307	79,137	83,127	83,089	79,793						
50 - 54	1,404	267	245	346	169	283	93	1					
	83,697	87,706	79,917	80,442	82,046	87,600	85,691	\$54,702					
55 - 59	1,231	176	215	294	181	255	105	5					
	83,724	85,572	79,093	78,651	86,578	85,561	94,054	102,209					
60 - 64	868	110	152	223	126	182	71	3	1				
	84,016	81,817	82,508	81,297	82,589	85,344	96,843	118,243	\$86,418				
65 - 69	289	38	72	72	48	47	12						
	83,682	93,181	77,704	81,204	75,790	96,045	87,478						
70 & over	70	6	17	18	15	13	1						
	75,718	73,436	78,912	65,721	88,182	73,240	60,324						
Total	8,627	2,453	1,903	2,014	870	1,037	340	9	1				
	\$79,872	\$76,051	\$79,626	\$79,038	\$83,061	\$84,913	\$89,613	\$102,275	\$86,418				

**EXHIBIT B** 

iii. General Tier 3

				Years	of Service	•		
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over
Under 25								
25 - 29								
30 - 34	5	3	1	1				
	\$54,425	\$51,589	\$63,623	\$53,735				
35 - 39	1	1						
	49,670	49,670						
40 - 44	5	1	2	1	1			
	64,608	74,202	61,314	65,534	\$60,676			
45 - 49	13	3	3	3		4		
	63,833	62,509	66,499	60,369		\$65,424		
50 - 54	7	2	1	1	2			1
	65,291	72,349	55,085	76,856	58,894			\$62,609
55 - 59	16	5	5	2	1	1	2	
	75,398	76,632	80,762	71,195	60,676	76,856	\$69,733	
60 - 64	2			1			1	
	59,394			63,857			54,931	
65 - 69								
70 & over								
Total	49	15	12	9	4	5	3	1
	\$66,466	\$66,268	\$70,387	\$64,831	\$59,785	\$67,711	\$64,799	\$62,609

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

**EXHIBIT B** 

iv. Safety Tier 1

		Years of Service											
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over			
Under 25													
25 - 29													
30 - 34													
35 - 39													
40 - 44													
45 - 49													
50 - 54	15				1	1	8	5					
	\$164,759				\$111,106	\$178,508	\$148,125	\$199,355					
55 - 59	6		3			2		1					
	126,083		\$153,043			99,603		98,161					
60 - 64	4		1				2	1					
	93,802		105,265				86,394	97,157					
65 - 69													
70 & over	1									1			
	79,325									\$79,325			
Total	26		4		1	3	10	7		1			
	\$141,631		\$141,099		\$111,106	\$125,904	\$135,779	\$170,299		\$79,325			

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

**EXHIBIT B** 

v. Safety Tier 2

		Years of Service											
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over					
Under 25	3	3											
	\$88,817	\$88,817											
25 - 29	105	68	36	1									
	93,703	90,110	\$100,296	\$100,669									
30 - 34	197	74	96	27									
	98,381	88,487	101,678	113,778									
35 - 39	287	58	83	130	16								
	98,728	88,045	97,482	102,275	\$115,088								
40 - 44	262	30	71	112	43	6							
	99,940	90,353	97,414	98,969	112,788	\$103,799							
45 - 49	266	19	31	74	43	80	19						
	107,547	88,629	99,897	101,159	108,680	115,524	\$127,674						
50 - 54	136	17	15	34	15	36	19						
	110,721	115,038	102,218	104,952	105,550	113,112	123,448						
55 - 59	66	13	14	9	8	11	11						
	102,714	110,868	106,801	99,253	95,602	107,149	91,441						
60 - 64	34	1	6	8	6	7	4	2					
	103,818	67,876	116,591	96,628	114,793	83,643	135,025	\$87,505					
65 - 69	15		3	7	2	2		1					
	114,082		124,116	130,239	87,596	88,983		74,050					
70 & over	1			1									
	89,238			89,238									
Total	1,372	283	355	403	133	142	53	3					
	\$101,881	\$91,547	\$100,215	\$102,418	\$109,598	\$111,823	\$119,194	\$83,020					

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

**EXHIBIT B** 

vi. Safety Tier 2C

		Years of Service										
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over				
Under 25	1	1										
	\$77,407	\$77,407										
25 - 29	2	2										
	83,760	83,760										
30 - 34	4	3	1									
	85,631	94,553	\$58,866									
35 - 39	5	5										
	80,049	80,049										
40 - 44	1	1										
	77,141	77,141										
45 - 49	2	1	1									
	60,227	58,787	61,668									
50 - 54	2	2										
	100,972	100,972										
55 - 59	1	1										
	108,775	108,775										
60 - 64	´	·										
65 - 69												
70 & over												
Total	18	16	2									
101111	\$83,112	\$85,967	\$60,267									

**EXHIBIT B** 

vii. Safety Tier 2D

		Years of Service										
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over				
Under 25	1	1										
	\$66,248	\$66,248										
25 - 29	9	8	1									
	69,483	69,874	\$66,361									
30 - 34	3	3										
	72,133	72,133										
35 - 39	4	4										
	126,176	126,176										
40 - 44	3	2	1									
	65,092	69,759	55,758									
45 - 49												
50 - 54	5	5										
	95,589	95,589										
55 - 59												
60 - 64												
65 - 69												
00 0												
70 & over												
. 0 22 0 . 31												
Total	25	23	2									
Total	\$83,437	\$85,383	\$61,060									
	φου,+υ/	φου,υου	φυ1,000									

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

EXHIBIT C

Reconciliation of Member Data – December 31, 2010 to December 31, 2011

	Active Members	Vested Terminated Members	Pensioners	Disableds	Beneficiaries	Total
Number as of December 31, 2010	10,879	1,785	5,702	794	1,062	20,222
New members	506	0	0	0	83	589
Terminations – with vested rights	-147	147	0	0	0	0
Contributions refunds	-132	-50	0	0	0	-182
Retirements	-384	-83	467	0	0	0
New disabilities	-16	-8	-10	34	0	0
Return to work	31	-31	0	0	0	0
Died with or without beneficiary	-13	-4	-161	-18	-49	-245
Data adjustments	0	40*	2	1	-1	42
Number as of December 31, 2011	10,724	1,796	6,000	811	1,095	20,426

<sup>\*</sup> Out of the 40 data adjustments, 6 were for members who were hired and terminated employment during 2011.

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,			
	2011		2010	
Contribution income:				
Employer contributions	\$162,879,221		\$147,543,301	
Employee contributions	77,990,907		77,604,809	
Contribution income		\$240,870,127		\$225,148,110
Investment income:				
Interest, dividends and other income	\$144,398,762		\$131,109,988	
Adjustment toward market value	63,206,800		28,605,803	
Less investment and administrative fees	<u>-42,934,516</u>		-37,624,699	
Net investment income		\$164,671,04 <u>6</u>		\$122,091,092
Total income available for benefits		\$405,541,173		\$347,239,202
Less benefit payments:				
Service retirement	-\$294,365,140		-\$271,495,585	
Death payments	-3,274,952		-3,223,041	
Supplemental cost of living	-2,556,221		-2,984,499	
Members refunds	-5,405,834		-5,644,811	
Health insurance subsidies	<u>-31,554,513</u>		-29,802,126	
Benefit payments		-\$337,156,660		-\$313,150,062
Change in reserve for future benefits		\$68,384,513		\$34,089,140

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

	Year Ended December 31,				
ASSETS	2011		2010		
Cash		\$530,525		\$1,117,925	
Securities Lending Collateral		439,349,950		523,857,487	
Accounts Receivable:					
Contributions	\$14,217,051		\$12,764,961		
Investment Receivables	20,421,334		21,375,559		
Investments Sold	6,509,950		6,998,268		
Foreign Exchange Contracts/Currency Swaps	1,341,734		7,199,312		
Equity Swaps	0		80,693		
Others	<u>301,992</u>		<u>302,771</u>		
Total Accounts Receivable		\$42,792,061		\$48,721,564	
Prepaid Expenses		542,870		561,951	
Investments:					
Short-Term Investments	\$144,922,222		\$127,347,311		
Equities	3,226,434,525		3,402,648,675		
Fixed Income Investments	1,065,454,967		1,217,472,972		
Real Estate	320,757,236		278,602,576		
Capital Assets	6,273,633		4,382,710		
Private Equity and Alternative Investments	<u>295,642,247</u>		<u>189,406,843</u>		
Total Investments at Market Value		<u>\$5,059,484,831</u>		\$5,219,861,086	
Total Assets		\$5,542,700,235		\$5,794,120,013	

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**

	Year Ended December 31,				
LIABILITIES	2011		2010		
Less Accounts Payable:					
Securities Lending & Investments Purchased	-\$451,710,801		-\$551,670,581		
Investment-Related Payables	-8,005,633		-4,517,682		
Futures Contracts & Equity Swaps	-1,741,093		-1,178,219		
Foreign Exchange Contracts/Currency Swaps	-2,474,772		-7,208,173		
Accrued Administration Expense	-2,064,002		-2,450,165		
Members Benefits & Refunds, and Retirement Payroll Deductions Payable	<u>-2,305,752</u>		<u>-2,600,313</u>		
Total Accounts Payable		-\$468,302,054		-\$569,625,133	
NET ASSETS					
Net Assets at Market Value		<u>\$5,074,398,182</u>		\$5,224,494,880	
Net Assets at Actuarial Value		<u>\$5,556,242,772</u>		\$5,487,858,259	
Net Assets at Valuation Value		\$4,868,688,966		\$4,776,128,467	

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)**

Assets	<u>Basic</u>	COLA	<u>Total</u>
1. Total valuation assets	\$3,260,350	\$1,608,339	\$4,868,689
2. Present value of future contributions by members	532,001	123,367	655,368
3. Present value of future employer contributions for:			
a. entry age normal cost	605,606	120,272	725,878
b. unfunded actuarial accrued liability	1,297,880	192,914	1,490,794
4. Total current and future assets	\$5,695,837	\$2,044,892	\$7,740,729
Liabilities			
5. Present value of benefits already granted	\$2,297,679	\$1,285,964	\$3,583,643
6. Present value of benefits to be granted to present non-retired members	3,398,158	758,928	4,157,086
7. Total liabilities	\$5,695,837	\$2,044,892	\$7,740,729

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EXHIBIT G
Summary of Reported Asset Information as of December 31, 2011

	Reserves
Used in Development of Valuation Value of Assets	
Members deposit-basic	\$900,919,033
Members cost-of-living	205,251,407
Employer advance (before transfer from SRBR to employer advance)	448,669,240
Pension reserve-current	1,185,457,220
Pension reserve-prior	3,290,786
Annuity reserve	709,481,121
Cost-of-living reserve	1,403,087,589
Survivor death benefit	8,121,364
SRBR transfer to employer advance	4,411,206*
Reserve for interest fluctuations (contingency reserve), if negative	0
Subtotal	\$4,868,688,966
Not Used in Development of Valuation Value of Assets	
401(h) account	\$5,346,574
Death benefit-burial	6,113,910
Supplemental retirees benefit reserve (before transfer from SRBR to employer advance)	602,906,726
Reserve for interest fluctuations (contingency reserve), if positive	77,597,803
Market stabilization reserve	-481,844,591
SRBR transfer to employer advance	-4,411,206
Subtotal	\$205,709,216
Total	\$5,074,398,182
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<sup>\*</sup> 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, 2011

		(Dollar Amounts in Thousands)
1.	Unfunded actuarial accrued liability at beginning of year	\$1,386,612
2.	Gross Normal Cost at middle of year	170,299
3.	Actual employer and member contributions	-240,870
4.	Interest (whole year on $(1)$ plus half year on $(2) + (3)$ )	106,755
5.	Expected unfunded actuarial accrued liability at end of year	\$1,422,796
6.	Actuarial (gain)/loss due to all changes*:	
	a. Loss from investments as recognized on December 31, 2011	\$225,446
	b. Gain from lower than expected salary increases for actives	-105,711
	c. Gain from lower than expected COLA increases for retirees and beneficiaries	-11,214
	d. Gain from data correction	-41,708
	e. Other experience (gain)/loss**	-5,982
	f. Effect of change in assumptions	<u>7,167</u>
	g. Subtotal	\$67,998
7.	Actual unfunded actuarial accrued liability at end of year (5) + (6g)	\$1,490,794

<sup>\*</sup> The "net gain from other experience" of \$164,615,000 from Chart 9 is equal to the sum of items 6b through 6e.

<sup>\*\*</sup> Following directions provided by ACERA, some retirees who were previously assumed to be married are now reclassified as single with no beneficiary eligible for an automatic continuance benefit.

#### **EXHIBIT I**

#### **Section 415 Limitations**

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

A qualified pension plan may not pay benefits in excess of the Section 415 limits. The ultimate penalty for 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 \$195,000 for 2011 and \$200,000 for 2012. 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.

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.

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

#### **EXHIBIT J**

#### **Definitions of Pension Terms**

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

# Assumptions or Actuarial Assumptions:

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

- (a) <u>Investment return</u> the rate of investment yield that the Plan will earn over the long-term future net, in this case, of investment and administrative expenses.
- (b) <u>Mortality rates</u> 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) <u>Turnover rates</u> the rates at which employees of various ages are expected to leave employment for reasons other than death, disability, or retirement.

#### **Normal Cost:**

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

## Actuarial Accrued Liability For Actives:

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

# Actuarial Accrued Liability For Pensioners:

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

# **Unfunded (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

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.

EXHIBIT I

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

Plan Year Ended December 31	Annual Required Contributions	Actual Contributions	Percentage Contributed
2006	\$127	\$127	100.0%
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%

EXHIBIT II

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

Actuarial Valuation Date	Valuation Value of Assets <sup>(1)</sup> (a)	Actuarial Accrued Liability (AAL) <sup>(2)</sup> (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (%) (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll (%) [(b) - (a)] / (c)
12/31/2006	\$4,127,841 <sup>(3)</sup>	\$4,825,157	\$697,316	85.5%	\$762,139	91.5%
12/31/2007	4,560,213 <sup>(4)</sup>	5,112,403	552,190	89.2	793,558	69.6
12/31/2008	$4,644,010^{(5)}$	5,537,919	893,909	83.9	864,260	103.4
12/31/2009	$4,789,000^{(6)}$	5,899,331	1,110,331	81.2	882,606	125.8
12/31/2010	4,776,128 <sup>(7)</sup>	6,162,740	1,386,612	77.5	898,342	154.4
12/31/2011	4,868,689 <sup>(8)</sup>	6,359,483	1,490,794	76.6	892,489	167.0

<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 \$6,303,514 in reimbursement of implicit retiree health benefit subsidy paid by the County for 2005 and 2006.

<sup>(4)</sup> Includes \$3,091,493 in reimbursement of implicit retiree health benefit subsidy paid by the County for 2007.

<sup>(5)</sup> Includes \$4,149,463 in reimbursement of implicit retiree health benefit subsidy paid by the County for 2008.

<sup>(6)</sup> Includes \$5,287,767 in reimbursement of implicit retiree health benefit subsidy paid by the County for 2009.

<sup>(7)</sup> Includes \$4,500,000 in reimbursement of implicit retiree health benefit subsidy paid by the County for 2010 (estimate, provided by ACERA).

<sup>(8)</sup> Includes \$4,411,206 in reimbursement of implicit retiree health benefit subsidy paid by the County for 2011 (estimate, provided by ACERA).

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

## **EXHIBIT III**

## **Supplementary Information Required by GASB**

Valuation date	December 31, 2011		
Actuarial cost method	Entry Age Normal Cost Method		
Amortization method	Level percent of payroll for total unfunded liability		
Remaining amortization period	21 years (declining) for all UAAL		
Asset valuation method	The Actuarial Value of Assets is determined by phasing in any difference between actuexpected market return over 10 six-month interest crediting periods. The Valuation Va Assets is the Actuarial Value of Assets reduced by the value of the non-valuation reservable.		
Actuarial assumptions:			
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 retirement income		
Plan membership:			
Retired members and beneficiaries receiving benefits	7,906		
Terminated members entitled to, but not yet receiving benefits	1,796		
Active members	<u>10,724</u>		
Total	20,426		

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

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

#### **EXHIBIT IV**

### **Actuarial Assumptions and Actuarial Cost Method**

#### **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 morality 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.

## **Termination Rates Before Retirement:**

Rate (%)
Mortality

	Gen	General		ety
Age	Male	Female	Male	Female
25	0.04	0.02	0.04	0.02
30	0.04	0.02	0.04	0.02
35	0.06	0.04	0.06	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.

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

Rate (%)
Disability

	•	
Age	General <sup>(1)</sup>	Safety <sup>(2)</sup>
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>&</sup>lt;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) 100%</sup> of Safety disabilities are assumed to be service connected disabilities.

## **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)(2)

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

<sup>40%</sup> 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:**

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

# 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.

### **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, Safety Tier 2, Safety Tier 2C, and

Safety Tier 2D.

### **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 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.

### **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</u>	<u>Disability</u>
	Retirement	Retirement
General Tier 1	8.0%	6.5%
General Tier 2	3.0%	1.4%
General Tier 3	8.0%	6.5%
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%

### **Changes in Actuarial Assumptions:**

Based on the December 1, 2007 – November 30, 2010 actuarial experience study, the following actuarial assumptions were changed. Previously these assumptions were as follows:

### **Post-Retirement Mortality Rates**

Healthy: For General members and all beneficiaries: RP-2000 Combined Healthy Mortality

Table set back one year.

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

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 three

years.

Employee Contribution Rates: For General members: RP-2000 Combined Healthy Mortality Table set back one

year, weighted 30% male and 70% female.

For Safety members: RP-2000 Combined Healthy Mortality Table set back two years,

weighted 75% male and 25% female.

## **Termination Rates Before Retirement:**

Rate (%)
Mortality

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

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

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

Rate (%)
Disability

Age	General <sup>(1)</sup>	Safety <sup>(2)</sup>
20	0.00	0.00
25	0.01	0.00
30	0.07	0.24
35	0.16	0.46
40	0.26	0.62
45	0.36	0.94
50	0.49	1.34
55	0.67	1.68
60	0.84	0.72

<sup>80%</sup> of General disabilities are assumed to be service connected disabilities. The other 20% are assumed to be non-service connected disabilities.

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

**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	10.00	5.00
2	9.00	5.00
3	7.00	3.00
4	5.00	3.00

Termination (5+ Years of Service)<sup>(2)</sup>

Age	General	Safety
20	5.00	3.00
25	5.00	3.00
30	5.00	2.40
35	4.70	1.70
40	3.72	1.20
45	2.54	1.00
50	1.92	1.00
55	1.62	1.00
60	1.20	0.40

<sup>80%</sup> of all terminated members will choose a refund of contributions and 20% will choose a deferred vested benefit.

<sup>&</sup>lt;sup>(2)</sup> 30% of all terminated members will choose a refund of contributions and 70% will choose a deferred vested benefit. No termination is assumed after a member is eligible for retirement.

## **Retirement Rates:**

	Rate (%)					
Age	General Tier 1	General Tier 2	General Tier 3	Safety Tier 1 <sup>(1)</sup>	Safety Tier 2, 2D <sup>(1)</sup>	Safety Tier 2C <sup>(1)</sup>
50	3.00	2.00	6.00	35.00	4.00	4.00
51	3.00	2.00	3.00	25.00	4.00	2.00
52	3.00	2.00	5.00	25.00	5.00	2.00
53	3.00	2.00	6.00	30.00	5.00	3.00
54	4.00	3.00	6.00	35.00	6.00	6.00
55	6.00	3.00	12.00	35.00	10.00	10.00
56	8.00	4.00	13.00	35.00	15.00	12.00
57	10.00	5.00	13.00	35.00	20.00	20.00
58	10.00	6.00	14.00	40.00	10.00	10.00
59	13.00	6.00	16.00	40.00	15.00	15.00
60	20.00	6.00	21.00	100.00	60.00	60.00
61	20.00	8.00	20.00	100.00	60.00	60.00
62	30.00	20.00	30.00	100.00	60.00	60.00
63	30.00	16.00	25.00	100.00	60.00	60.00
64	30.00	20.00	25.00	100.00	100.00	100.00
65	35.00	25.00	30.00	100.00	100.00	100.00
66	30.00	20.00	25.00	100.00	100.00	100.00
67	25.00	20.00	25.00	100.00	100.00	100.00
68	20.00	30.00	25.00	100.00	100.00	100.00
69	45.00	40.00	50.00	100.00	100.00	100.00
70	100.00	100.00	100.00	100.00	100.00	100.00

Retirement rate is 100% after a member accrues a benefit of 100% of final average earnings.

### **Changes in Actuarial Assumptions (continued):**

Retirement Age and Benefit for Deferred Vested Members:

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

General Age: 58 Safety Age: 55

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 45% of future Safety deferred vested members will continue to work for a reciprocal employer. For reciprocals, we assume 5.10% and 5.40% compensation increases per annum for General and Safety, respectively.

Future Benefit Accruals: 1.0 year of service per year of employment plus 0.008 year of additional service to

anticipate conversion of unused sick leave for each year of employment.

**Percent Married:** 75% of male members; 55% of female members.

**Net Investment Return:** 7.90%, net of administration and investment expenses (approximately 1% of assets)

**Employee Contribution** 

**Crediting Rate:** 7.90%, compounded semi-annually.

### **Changes in Actuarial Assumptions (continued):**

### **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 age.

Age	General	Safety
25	4.00%	5.10%
30	3.00%	3.50%
35	2.40%	2.20%
40	1.80%	1.50%
45	1.50%	1.50%
50	1.10%	1.40%
55	1.00%	1.30%
60	0.80%	0.00%
65	0.70%	0.00%

### **Changes in Actuarial Assumptions (continued):**

**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</u> <u>Retirement</u>	<u>Disability</u> <u>Retirement</u>
General Tier 1	8.0%	7.0%
General Tier 2	3.0%	2.8%
General Tier 3	8.0%	7.0%
Safety Tier 1	9.5%	8.5%
Safety Tier 2	4.0%	2.8%
Safety Tier 2C	4.0%	2.8%
Safety Tier 2D	4.0%	2.8%

### **EXHIBIT V**

### **Summary of Plan Provisions**

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.

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.
General and Safety Tier 1	All General and Safety members hired on or before June 30, 1983.
General and Safety Tier 2	All General and Safety members hired after June 30, 1983.
General Tier 3	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.
Safety Tier 2C	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.
Safety Tier 2D	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.
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, Safety Tier 2, Safety Tier 2C, and Safety Tier 2D	Highest consecutive thirty-six months of compensation earnable (§31462) (FAS3).

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

Service:	Years of service (Yrs).
Service Retirement Eligib	oility:
General	Age 50 with 10 years of service, or age 70 regardless of service, or after 30 years, regardless of age (§31672).
Safety	Age 50 with 10 years of service, or after 20 years, regardless of age (§31663.25).

### **Benefit Formula:**

	Retirement Age	Benefit Formula
General Tier 1 (§31676.12)	50	(1.34% x FAS1 – 1/3 x 1.34% x \$350 x 12) x Yrs
	55	(1.77% x FAS1 – 1/3 x 1.77% x \$350 x 12) x Yrs
	60	(2.34% x FAS1 – 1/3 x 2.34% x \$350 x 12) x Yrs
	62 or later	(2.62% x FAS1 – 1/3 x 2.62% x \$350 x 12) x Yrs
	Retirement Age	Benefit Formula
General Tier 2 (§31676.1)	50	(1.18% x FAS3 – 1/3 x 1.18% x \$350 x 12) x Yrs
	55	(1.49% x FAS3 – 1/3 x 1.49% x \$350 x 12) x Yrs
	60	(1.92% x FAS3 – 1/3 x 1.92% x \$350 x 12) x Yrs
	62	(2.09% x FAS3 – 1/3 x 2.09% x \$350 x 12) x Yrs
	65	(2.43% x FAS3 – 1/3 x 2.43% x \$350 x 12) x Yrs
General Tier 3 (§31676.18)	Retirement Age	Benefit Formula
	50	(2.00% x FAS1 x Yrs)
	55 or later	(2.50% x FAS1 x Yrs)

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

	Retirement Age	Benefit Formula
Safety Tier 1 (Non-Integrated)		
(§31664.1)	50	(3.00%xFAS1xYrs)
	55 or later	(3.00%xFAS1xYrs)
Safety Tier 2 (Non-Integrated)		
(§31664.1)	50	(3.00%xFAS3xYrs)
	55 or later	(3.00%xFAS3xYrs)
Safety Tier 2C (Non-Integrated	)	
(§31664)	50	(2.00%xFAS3xYrs)
	55 or later	(2.62%xFAS3xYrs)
Safety Tier 2D (Non-Integrated	)	
(§31664.2)	50	(2.29%xFAS3xYrs)
	55 or later	(3.00%xFAS3xYrs)
Iaximum Renefit:	100% of Highest Average C	ompensation (\$31676.1, \$31676.12, \$31676.18)

#### **Maximum Benefit:**

100% of Highest Average Compensation (§31676.1, §31676.12, §31676.18, §31664, §31664.1, and §31664.2)

§31664.1, and §31664.2).

# **Ordinary Disability:**

General Tier 1, Tier 2 and Tier 3

Eligibility

Five years of service (§31720).

Benefit Formula

1.8% per year of service for General Tier 1 and Tier 3 and 1.5% per year of service for General Tier 2. 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, but the total benefit cannot be more than one-third of Final Compensation (§31727 and §31727.2).

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

Eligibility Five years of service (§31720).

Benefit Formula 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).

**Line-of-Duty Disability:** 

All Members

Eligibility No age or service requirements (§31720).

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

(§31727.4).

**Pre-Retirement Death:** 

All Members

Eligibility 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%<sup>(1)</sup> 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).

<sup>(1)</sup> The Retirement Board also provides an Active Death Equity Benefit (ADEB) that increases the 60% continuance to 100% continuance. The ADEB benefit is funded by the Supplemental Retirees Benefit Reserve (SRBR) and the cost associated with the ADEB is excluded from this valuation.

<b>Death After Retirement:</b>	
<u>All Members</u>	
Service or Ordinary Disability Retirement	60% of member's unmodified allowance continued to eligible spouse (§31760.1) and \$5,000 <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).
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).
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, Safety Tier 2, Safety Tier 2C, and Safety Tier 2D	Future changes based on Consumer Price Index to a maximum of 2% per year; excess "banked" (§31870).
<b>County Contributions:</b>	The amortization period for Unfunded Actuarial Accrued Liability is amortized over a declining 21-year period.

<sup>(1) \$750</sup> is funded by the employer. \$4,250 is funded by the Supplement Retirees Benefit Reserve. These benefits are excluded from the valuation.

Supplemental Benefit:	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.
General Tier 1	
Basic	Provide for an average annuity at age 60 equal to 1/100 of FAS1 (§31621.2).
Cost-of-Living	Provide for one-half of future Cost-of-Living costs.
General Tier 2	
Basic	Provide for an average annuity at age 60 equal to 1/120 of FAS3 (§31621).
Cost-of-Living	Provide for one-half of future Cost-of-Living costs.
General Tier 3	
Basic	Provide for an average annuity at age 55 equal to 1/100 of FAS1 (§31621.8).
Cost-of-Living	Provide for one-half of future Cost-of-Living costs.
Safety	
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.

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

Other Information:	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:	Effective February 6, 2011 for ACMEA Probation Mgrs. and effective March 6, 2011 for Teamsters Local Union 856, members in these groups can elect to enroll in either Safety Tier 2C (2% @ 50 formula) or Safety Tier 2D (3% @ 55 formula), with payment of additional member cost sharing contributions for Safety Tier 2D.
	Effective September 30, 2011, all new members hired by the Housing Authority enter General Tier 2.

**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.

Appendix A

Member Contribution Rates

Comparison of Total Member Rate<sup>(1)</sup> from December 31, 2011 (New) and December 31, 2010 (Current) Valuations

	Genera	l Tier 1			Genera	l Tier 2	
Entry Age	Current	New	Change	Entry Age	Current	New	Change
25	9.90%	8.82%	-1.08%	25	6.72%	5.99%	-0.73%
35	10.81%	10.53%	-0.28%	35	7.34%	7.15%	-0.19%
45	12.18%	12.56%	0.38%	45	8.27%	8.53%	0.26%
	Genera	1 Tier 3					
Entry Age	Current	New	Change				
25	11.55%	10.22%	-1.33%				
35	12.52%	12.19%	-0.33%				
45	13.98%	14.53%	0.55%				
	Safety	Tier 1			Safety	Tier 2	
Entry Age	Current	New	Change	Entry Age	Current	New	Change
25	17.92%	16.68%	-1.24%	25	14.60%	13.78%	-0.82%
30	18.32%	17.93%	-0.39%	30	14.91%	14.76%	-0.15%
35	19.01%	19.32%	0.31%	35	15.46%	15.84%	0.38%
	Safety	Tier 2C			Safety T	ier 2D <sup>(2)</sup>	
Entry Age	Current	New	Change	Entry Age	Current	New	Change
25	11.19%	10.31%	-0.88%	25	16.51%	15.63%	-0.88%
30	11.50%	11.24%	-0.26%	30	16.83%	16.59%	-0.24%
35	12.02%	12.28%	0.26%	35	17.37%	17.66%	0.29%

<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> Current and new rates include the 5.00% cost sharing contribution for members with less than 5 years of vesting service. For members with at least 5 years of vesting service, the current and new rates would be reduced by 2.00% to reflect the 3.00% (instead of 5.00%) cost sharing contribution for these members.

Breakdown of member rate between basic and COLA calculated in the December 31, 2011 and December 31, 2010 valuations:

		December 31, 2011 Actuarial Valuation									Decem	ber 31, 2010 A	Actuarial Va	luation <sup>(1)</sup>		
	BASIC		BASIC COLA		COST SHARING TOTAL		BASIC		C	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*
General Tier 1 Members	6.69%	\$3,554	2.44%	\$1,297			9.13%	\$4,851	7.23%	\$3,841	2.67%	\$1,419			9.90%	\$5,260
General Tier 2 Members	5.77%	39,759	1.27%	8,751			7.04%	48,510	5.95%	40,999	1.34%	9,233			7.29%	50,232
General Tier 3 Members	9.20%	300	3.28%	106			12.48%	406	9.41%	306	3.44%	113			12.85%	419
Safety Tier 1 Members	5.80%	214	3.19%	117	3.00%	\$110	11.99%	441	5.93%	218	3.16%	117	3.00%	\$110	12.09%	445
Safety Tier 2 Members	8.26%	11,546	2.78%	3,886	3.00%	4,193	14.04%	19,625	8.60%	12,021	2.78%	3,886	3.00%	4,193	14.38%	20,100
Safety Tier 2C Members	9.32%	139	2.59%	39	0.00%	0	11.91%	178	9.35%	140	2.59%	39	0.00%	0	11.94%	179
Safety Tier 2D Members	8.99%	188	2.85%	59	4.88% (2)	102	16.72%	349	9.20%	192	2.89%	60	4.88% (2)	102	16.97%	354
All Member Categories Combined	6.24%	\$55,700	1.60%	\$14,255	0.49%	\$4,405	8.33%	\$74,360	6.47%	\$57,717	1.67%	\$14,867	0.49%	\$4,405	8.63%	\$76,989

<sup>\*</sup> Amounts are in thousands and are based on December 31, 2011 annual payroll (also in thousands):

	County Only	ACMC, Court & First 5	Other Districts	<u>Total</u>
General Tier 1	\$35,819	\$11,930	\$5,382	\$53,131
General Tier 2	452,080	236,932	45	689,057
General Tier 3			3,257	3,257
Safety Tier 1	3,682			3,682
Safety Tier 2	139,780			139,780
Safety Tier 2C	1,496			1,496
Safety Tier 2D	2,086			2,086
Total	\$634,943	\$248,862	\$8,684	\$892,489

These rates have been re-calculated by applying the individual entry age based member rates determined in December 31, 2010 valuation to the Association membership as of December 31, 2011.

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).



Appendix A
Member Contribution Rates (Continued)

General Tier 1 Members' Contribution Rates Based on the December 31, 2011 Actuarial Valuation as a percentage of payroll

	Basi	c Only	COLA	Only	Total		
Entry Age	<u>First \$161</u>	Over \$161*	First \$161	Over \$161*	<u>First \$161</u>	Over \$161*	
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%	1.36%	2.04%	5.08%	7.62%	
18	3.79%	5.68%	1.39%	2.08%	5.18%	7.76%	
19	3.86%	5.79%	1.41%	2.12%	5.27%	7.91%	
20	3.93%	5.90%	1.44%	2.16%	5.37%	8.06%	
21	4.00%	6.01%	1.47%	2.20%	5.47%	8.21%	
22	4.08%	6.12%	1.49%	2.24%	5.57%	8.36%	
23	4.15%	6.23%	1.52%	2.28%	5.67%	8.51%	
24	4.23%	6.34%	1.55%	2.32%	5.78%	8.66%	
25	4.30%	6.46%	1.57%	2.36%	5.87%	8.82%	
26	4.38%	6.57%	1.60%	2.40%	5.98%	8.97%	
27	4.46%	6.69%	1.63%	2.45%	6.09%	9.14%	
28	4.54%	6.81%	1.66%	2.49%	6.20%	9.30%	
29	4.62%	6.93%	1.69%	2.54%	6.31%	9.47%	
30	4.71%	7.06%	1.72%	2.58%	6.43%	9.64%	
31	4.79%	7.18%	1.75%	2.63%	6.54%	9.81%	
32	4.88%	7.31%	1.78%	2.67%	6.66%	9.98%	
33	4.96%	7.44%	1.81%	2.72%	6.77%	10.16%	
34	5.05%	7.58%	1.85%	2.77%	6.90%	10.35%	
35	5.14%	7.71%	1.88%	2.82%	7.02%	10.53%	
36	5.23%	7.85%	1.91%	2.87%	7.14%	10.72%	
37	5.32%	7.98%	1.95%	2.92%	7.27%	10.90%	
38	5.42%	8.13%	1.98%	2.97%	7.40%	11.10%	
39	5.51%	8.27%	2.01%	3.02%	7.52%	11.29%	

Appendix A
Member Contribution Rates (Continued)

	Basi	c Only	COLA	Only	Т	Total	
Entry Age	First \$161	Over \$161*	<u>First \$161</u>	Over \$161*	First \$161	Over \$161*	
40	5.61%	8.42%	2.05%	3.08%	7.66%	11.50%	
41	5.71%	8.57%	2.09%	3.13%	7.80%	11.70%	
42	5.81%	8.72%	2.13%	3.19%	7.94%	11.91%	
43	5.92%	8.87%	2.17%	3.25%	8.09%	12.12%	
44	6.02%	9.03%	2.20%	3.30%	8.22%	12.33%	
45	6.13%	9.20%	2.24%	3.36%	8.37%	12.56%	
46	6.24%	9.37%	2.28%	3.42%	8.52%	12.79%	
47	6.36%	9.54%	2.33%	3.49%	8.69%	13.03%	
48	6.48%	9.72%	2.37%	3.55%	8.85%	13.27%	
49	6.59%	9.88%	2.41%	3.61%	9.00%	13.49%	
50	6.69%	10.03%	2.45%	3.67%	9.14%	13.70%	
51	6.80%	10.20%	2.49%	3.73%	9.29%	13.93%	
52	6.88%	10.33%	2.52%	3.78%	9.40%	14.11%	
53	6.97%	10.45%	2.55%	3.82%	9.52%	14.27%	
54	7.04%	10.56%	2.57%	3.86%	9.61%	14.42%	
55	7.10%	10.65%	2.59%	3.89%	9.69%	14.54%	
56	7.14%	10.72%	2.61%	3.92%	9.75%	14.64%	
57	7.13%	10.70%	2.61%	3.91%	9.74%	14.61%	
58	7.06%	10.59%	2.58%	3.87%	9.64%	14.46%	
59 & Over	6.82%	10.23%	2.49%	3.74%	9.31%	13.97%	

<sup>\*</sup> 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 IV)

COLA Loading Factor: 36.57% Terminal Pay: 8.0%

Appendix A
Member Contribution Rates (Continued)

General Tier 2 Members' Contribution Rates Based on the December 31, 2011 Actuarial Valuation as a percentage of payroll

	Basi	c Only	COL	A Only	То	Total		
Entry Age	First \$161	Over \$161*	First \$161	Over \$161*	First \$161	Over \$161*		
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%	1.24%	4.60%	6.90%		
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%	1.33%	4.94%	7.40%		
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%		

Appendix A

Member Contribution Rates (Continued)

	Basi	c Only	COL	A Only	Total		
Entry Age	First \$161	Over \$161*	<u>First \$161</u>	Over \$161*	First \$161	Over \$161*	
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%	1.04%	1.56%	5.78%	8.68%	
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%	1.09%	1.64%	6.07%	9.11%	
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%	1.72%	6.38%	9.57%	
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%	1.87%	6.93%	10.39%	

<sup>\*</sup> 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 IV)

COLA Loading Factor: 21.98% Terminal Pay: 3.0%

Appendix A

Member Contribution Rates (Continued)

General Tier 3 Members' Contribution Rates Based on the December 31, 2011 Actuarial Valuation as a percentage of payroll

	Basic Only		COL	A Only	Total		
Entry Age	<u>First \$161</u>	Over \$161*	<u>First \$161</u>	Over \$161*	<u>First \$161</u>	Over \$161*	
15	4.27%	6.41%	1.53%	2.29%	5.80%	8.70%	
16	4.27%	6.41%	1.53%	2.29%	5.80%	8.70%	
17	4.35%	6.53%	1.55%	2.33%	5.90%	8.86%	
18	4.43%	6.64%	1.58%	2.37%	6.01%	9.01%	
19	4.51%	6.77%	1.61%	2.42%	6.12%	9.19%	
20	4.59%	6.89%	1.64%	2.46%	6.23%	9.35%	
21	4.68%	7.01%	1.67%	2.50%	6.35%	9.51%	
22	4.76%	7.14%	1.70%	2.55%	6.46%	9.69%	
23	4.85%	7.27%	1.73%	2.59%	6.58%	9.86%	
24	4.93%	7.40%	1.76%	2.64%	6.69%	10.04%	
25	5.02%	7.53%	1.79%	2.69%	6.81%	10.22%	
26	5.11%	7.67%	1.83%	2.74%	6.94%	10.41%	
27	5.20%	7.80%	1.86%	2.79%	7.06%	10.59%	
28	5.29%	7.94%	1.89%	2.84%	7.18%	10.78%	
29	5.39%	8.08%	1.93%	2.89%	7.32%	10.97%	
30	5.48%	8.23%	1.96%	2.94%	7.44%	11.17%	
31	5.58%	8.37%	1.99%	2.99%	7.57%	11.36%	
32	5.68%	8.52%	2.03%	3.04%	7.71%	11.56%	
33	5.78%	8.67%	2.07%	3.10%	7.85%	11.77%	
34	5.88%	8.82%	2.10%	3.15%	7.98%	11.97%	
35	5.99%	8.98%	2.14%	3.21%	8.13%	12.19%	
36	6.09%	9.14%	2.17%	3.26%	8.26%	12.40%	
37	6.20%	9.30%	2.21%	3.32%	8.41%	12.62%	
38	6.31%	9.47%	2.25%	3.38%	8.56%	12.85%	
39	6.43%	9.64%	2.29%	3.44%	8.72%	13.08%	

Appendix A
Member Contribution Rates (Continued)

	Basi	c Only	COL	A Only	To	otal
Entry Age	First \$161	Over \$161*	First \$161	Over \$161*	First \$161	Over \$161*
40	6.54%	9.81%	2.33%	3.50%	8.87%	13.31%
41	6.66%	9.99%	2.38%	3.57%	9.04%	13.56%
42	6.79%	10.18%	2.42%	3.63%	9.21%	13.81%
43	6.91%	10.37%	2.47%	3.70%	9.38%	14.07%
44	7.03%	10.54%	2.51%	3.76%	9.54%	14.30%
45	7.14%	10.71%	2.55%	3.82%	9.69%	14.53%
46	7.25%	10.88%	2.59%	3.88%	9.84%	14.76%
47	7.35%	11.02%	2.62%	3.93%	9.97%	14.95%
48	7.43%	11.15%	2.65%	3.98%	10.08%	15.13%
49	7.51%	11.27%	2.68%	4.02%	10.19%	15.29%
50	7.57%	11.36%	2.71%	4.06%	10.28%	15.42%
51	7.62%	11.43%	2.72%	4.08%	10.34%	15.51%
52	7.61%	11.42%	2.72%	4.08%	10.33%	15.50%
53	7.53%	11.30%	2.69%	4.03%	10.22%	15.33%
54 & over	7.27%	10.91%	2.60%	3.90%	9.87%	14.81%

<sup>\*</sup> 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 IV)

COLA Loading Factor: 35.70% Terminal Pay: 8.0%

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, 2011 Actuarial Valuation as a percentage of payroll

	Basic Only		Cost Sharing	Contributions	COL	COLA Only		Total	
Entry Age	<u>First \$161</u>	Over \$161*	First \$161	Over \$161*	<u>First \$161</u>	Over \$161*	<u>First \$161</u>	Over \$161*	
15	5.03%	7.54%	3.00%	3.00%	2.77%	4.16%	10.80%	14.70%	
16	5.03%	7.54%	3.00%	3.00%	2.77%	4.16%	10.80%	14.70%	
17	5.12%	7.68%	3.00%	3.00%	2.83%	4.24%	10.95%	14.92%	
18	5.21%	7.81%	3.00%	3.00%	2.87%	4.31%	11.08%	15.12%	
19	5.30%	7.95%	3.00%	3.00%	2.92%	4.38%	11.22%	15.33%	
20	5.39%	8.09%	3.00%	3.00%	2.97%	4.46%	11.36%	15.55%	
21	5.49%	8.23%	3.00%	3.00%	3.03%	4.54%	11.52%	15.77%	
22	5.58%	8.37%	3.00%	3.00%	3.08%	4.62%	11.66%	15.99%	
23	5.68%	8.52%	3.00%	3.00%	3.13%	4.70%	11.81%	16.22%	
24	5.78%	8.67%	3.00%	3.00%	3.19%	4.78%	11.97%	16.45%	
25	5.88%	8.82%	3.00%	3.00%	3.24%	4.86%	12.12%	16.68%	
26	5.98%	8.97%	3.00%	3.00%	3.30%	4.95%	12.28%	16.92%	
27	6.09%	9.13%	3.00%	3.00%	3.36%	5.04%	12.45%	17.17%	
28	6.19%	9.29%	3.00%	3.00%	3.41%	5.12%	12.60%	17.41%	
29	6.30%	9.45%	3.00%	3.00%	3.47%	5.21%	12.77%	17.66%	
30	6.41%	9.62%	3.00%	3.00%	3.54%	5.31%	12.95%	17.93%	
31	6.53%	9.79%	3.00%	3.00%	3.60%	5.40%	13.13%	18.19%	
32	6.64%	9.96%	3.00%	3.00%	3.67%	5.50%	13.31%	18.46%	
33	6.76%	10.14%	3.00%	3.00%	3.73%	5.60%	13.49%	18.74%	
34	6.89%	10.33%	3.00%	3.00%	3.80%	5.70%	13.69%	19.03%	
35	7.01%	10.52%	3.00%	3.00%	3.87%	5.80%	13.88%	19.32%	
36	7.14%	10.72%	3.00%	3.00%	3.94%	5.91%	14.08%	19.63%	
37	7.28%	10.92%	3.00%	3.00%	4.01%	6.02%	14.29%	19.94%	
38	7.42%	11.14%	3.00%	3.00%	4.09%	6.14%	14.51%	20.28%	
39	7.55%	11.33%	3.00%	3.00%	4.17%	6.25%	14.72%	20.58%	

# Appendix A

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

	Basi	c Only	Cost Sharing	Contributions	COL	A Only	To	tal
Entry Age	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%	4.25%	6.37%	14.94%	20.91%
41	7.84%	11.76%	3.00%	3.00%	4.33%	6.49%	15.17%	21.25%
42	7.99%	11.99%	3.00%	3.00%	4.41%	6.61%	15.40%	21.60%
43	8.12%	12.19%	3.00%	3.00%	4.48%	6.72%	15.60%	21.91%
44	8.19%	12.29%	3.00%	3.00%	4.52%	6.78%	15.71%	22.07%
45	8.25%	12.37%	3.00%	3.00%	4.55%	6.82%	15.80%	22.19%
46	8.27%	12.40%	3.00%	3.00%	4.56%	6.84%	15.83%	22.24%
47	8.16%	12.25%	3.00%	3.00%	4.51%	6.76%	15.67%	22.01%
48	7.97%	11.95%	3.00%	3.00%	4.39%	6.59%	15.36%	21.54%
49 & Over	7.58%	11.36%	3.00%	3.00%	4.18%	6.27%	14.76%	20.63%

<sup>\*</sup> 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 IV)

COLA Loading Factor: 55.17%
Terminal Pay: 8.5%



Appendix A
Member Contribution Rates (Continued)

Safety Tier 2 Members' Contribution Rates Based on the December 31, 2011 Actuarial Valuation as percentage of payroll

	Basi	Basic Only		g Contributions	COLA	Only	Total	
Entry Age	First \$161	Over \$161*	First \$161	Over \$161*	First \$161	Over \$161*	<u>First \$161</u>	Over \$161*
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%	1.61%	2.41%	9.38%	12.56%
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%	2.05%	3.07%	11.12%	15.18%
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%	2.12%	3.18%	11.41%	15.62%
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%

Appendix A

Member Contribution Rates (Continued)

	Basic Only		Cost Sharing	Cost Sharing Contributions		COLA Only		Total	
Entry Age	First \$161	Over \$161*	<u>First \$161</u>	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%	2.43%	3.64%	12.64%	17.45%	
43	7.27%	10.90%	3.00%	3.00%	2.45%	3.67%	12.72%	17.57%	
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%	2.42%	3.63%	12.61%	17.41%	
47	7.05%	10.57%	3.00%	3.00%	2.37%	3.56%	12.42%	17.13%	
48	7.30%	10.96%	3.00%	3.00%	2.46%	3.69%	12.76%	17.65%	
49 & Over	7.58%	11.36%	3.00%	3.00%	2.55%	3.82%	13.13%	18.18%	

<sup>\*</sup> 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 IV)

COLA Loading Factor: 33.64% Terminal Pay: 4.0%



Appendix A

Member Contribution Rates (Continued)

Safety Tier 2C Members' Contribution Rates Based on the December 31, 2011 Actuarial Valuation as percentage of payroll

	Basic	Only	COLA	Only	Total		
Entry Age	First \$161	Over \$161*	First \$161	Over \$161*	First \$161	Over \$161*	
15	4.60%	6.91%	1.28%	1.92%	5.88%	8.83%	
16	4.60%	6.91%	1.28%	1.92%	5.88%	8.83%	
17	4.69%	7.03%	1.30%	1.95%	5.99%	8.98%	
18	4.77%	7.15%	1.32%	1.98%	6.09%	9.13%	
19	4.85%	7.28%	1.35%	2.02%	6.20%	9.30%	
20	4.94%	7.40%	1.37%	2.05%	6.31%	9.45%	
21	5.02%	7.53%	1.39%	2.09%	6.41%	9.62%	
22	5.11%	7.66%	1.42%	2.13%	6.53%	9.79%	
23	5.20%	7.80%	1.44%	2.16%	6.64%	9.96%	
24	5.29%	7.93%	1.47%	2.20%	6.76%	10.13%	
25	5.38%	8.07%	1.49%	2.24%	6.87%	10.31%	
26	5.47%	8.21%	1.52%	2.28%	6.99%	10.49%	
27	5.57%	8.35%	1.55%	2.32%	7.12%	10.67%	
28	5.67%	8.50%	1.57%	2.36%	7.24%	10.86%	
29	5.76%	8.65%	1.60%	2.40%	7.36%	11.05%	
30	5.87%	8.80%	1.63%	2.44%	7.50%	11.24%	
31	5.97%	8.95%	1.65%	2.48%	7.62%	11.43%	
32	6.07%	9.11%	1.69%	2.53%	7.76%	11.64%	
33	6.18%	9.28%	1.71%	2.57%	7.89%	11.85%	
34	6.29%	9.44%	1.75%	2.62%	8.04%	12.06%	
35	6.41%	9.61%	1.78%	2.67%	8.19%	12.28%	
36	6.53%	9.79%	1.81%	2.72%	8.34%	12.51%	
37	6.65%	9.97%	1.85%	2.77%	8.50%	12.74%	
38	6.76%	10.14%	1.88%	2.82%	8.64%	12.96%	
39	6.88%	10.32%	1.91%	2.86%	8.79%	13.18%	

Appendix A

Member Contribution Rates (Continued)

	Basic Only		COLA	Only	Total		
Entry Age	First \$161	Over \$161*	First \$161	Over \$161*	First \$161	Over \$161*	
40	7.00%	10.50%	1.94%	2.91%	8.94%	13.41%	
41	7.12%	10.67%	1.97%	2.96%	9.09%	13.63%	
42	7.21%	10.81%	2.00%	3.00%	9.21%	13.81%	
43	7.27%	10.90%	2.01%	3.02%	9.28%	13.92%	
44	7.29%	10.94%	2.03%	3.04%	9.32%	13.98%	
45	7.27%	10.91%	2.02%	3.03%	9.29%	13.94%	
46	7.19%	10.78%	1.99%	2.99%	9.18%	13.77%	
47	7.05%	10.57%	1.95%	2.93%	9.00%	13.50%	
48	7.30%	10.96%	2.03%	3.04%	9.33%	14.00%	
49 & Over	7.58%	11.36%	2.10%	3.15%	9.68%	14.51%	

<sup>\*</sup> 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 IV)

COLA Loading Factor: 27.75% Terminal Pay: 4.0%

Appendix A
Member Contribution Rates (Continued)

Safety Tier 2D Members' Contribution Rates Based on the December 31, 2011 Actuarial Valuation as percentage of payroll

	Basic Only		Cost Sharing Contributions**		COLA	Only	Total***		
Entry Age	First \$161	Over \$161*	First \$161	Over \$161*	<u>First \$161</u>	Over \$161*	<u>First \$161</u>	Over \$161*	
15	4.60%	6.91%	5.00%	5.00%	1.46%	2.19%	11.06%	14.10%	
16	4.60%	6.91%	5.00%	5.00%	1.46%	2.19%	11.06%	14.10%	
17	4.69%	7.03%	5.00%	5.00%	1.49%	2.23%	11.18%	14.26%	
18	4.77%	7.15%	5.00%	5.00%	1.51%	2.27%	11.28%	14.42%	
19	4.85%	7.28%	5.00%	5.00%	1.54%	2.31%	11.39%	14.59%	
20	4.94%	7.40%	5.00%	5.00%	1.57%	2.35%	11.51%	14.75%	
21	5.02%	7.53%	5.00%	5.00%	1.59%	2.39%	11.61%	14.92%	
22	5.11%	7.66%	5.00%	5.00%	1.62%	2.43%	11.73%	15.09%	
23	5.20%	7.80%	5.00%	5.00%	1.65%	2.48%	11.85%	15.28%	
24	5.29%	7.93%	5.00%	5.00%	1.68%	2.52%	11.97%	15.45%	
25	5.38%	8.07%	5.00%	5.00%	1.71%	2.56%	12.09%	15.63%	
26	5.47%	8.21%	5.00%	5.00%	1.74%	2.61%	12.21%	15.82%	
27	5.57%	8.35%	5.00%	5.00%	1.77%	2.65%	12.34%	16.00%	
28	5.67%	8.50%	5.00%	5.00%	1.80%	2.70%	12.47%	16.20%	
29	5.76%	8.65%	5.00%	5.00%	1.83%	2.75%	12.59%	16.40%	
30	5.87%	8.80%	5.00%	5.00%	1.86%	2.79%	12.73%	16.59%	
31	5.97%	8.95%	5.00%	5.00%	1.89%	2.84%	12.86%	16.79%	
32	6.07%	9.11%	5.00%	5.00%	1.93%	2.89%	13.00%	17.00%	
33	6.18%	9.28%	5.00%	5.00%	1.96%	2.94%	13.14%	17.22%	
34	6.29%	9.44%	5.00%	5.00%	2.00%	3.00%	13.29%	17.44%	
35	6.41%	9.61%	5.00%	5.00%	2.03%	3.05%	13.44%	17.66%	
36	6.53%	9.79%	5.00%	5.00%	2.07%	3.11%	13.60%	17.90%	
37	6.65%	9.97%	5.00%	5.00%	2.11%	3.17%	13.76%	18.14%	
38	6.76%	10.14%	5.00%	5.00%	2.15%	3.22%	13.91%	18.36%	
39	6.88%	10.32%	5.00%	5.00%	2.19%	3.28%	14.07%	18.60%	

Appendix A

Member Contribution Rates (Continued)

	Basic Only		Cost Sharing Contributions**		COLA Only		Total***	
Entry Age	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%	2.22%	3.33%	14.22%	18.83%
41	7.12%	10.67%	5.00%	5.00%	2.26%	3.39%	14.38%	19.06%
42	7.21%	10.81%	5.00%	5.00%	2.29%	3.43%	14.50%	19.24%
43	7.27%	10.90%	5.00%	5.00%	2.31%	3.46%	14.58%	19.36%
44	7.29%	10.94%	5.00%	5.00%	2.31%	3.47%	14.60%	19.41%
45	7.27%	10.91%	5.00%	5.00%	2.31%	3.46%	14.58%	19.37%
46	7.19%	10.78%	5.00%	5.00%	2.28%	3.42%	14.47%	19.20%
47	7.05%	10.57%	5.00%	5.00%	2.24%	3.36%	14.29%	18.93%
48	7.30%	10.96%	5.00%	5.00%	2.32%	3.48%	14.62%	19.44%
49 & Over	7.58%	11.36%	5.00%	5.00%	2.41%	3.61%	14.99%	19.97%

<sup>\*</sup> 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 IV)

COLA Loading Factor: 31.75% Terminal Pay: 4.0%



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

<sup>\*\*\*</sup> Includes the 5.00% cost sharing contribution for members with less than 5 years of vesting service. For members with at least 5 years of vesting service, the total rates would be reduced by 2.00% to reflect the 3.00% (instead of 5.00%) cost sharing contribution for these members.

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, 2011 Actuarial Valuation

Dollar Contribution<sup>(1)</sup> Based on December 31, 2011 Valuation Dollar Contribution<sup>(1)</sup> Based on December 31, 2010 Valuation General Safety General Safety Tier 3 Tier 2C Tier 2D Employer Name (Code) Tier 1 Tier 2 Tier 3 Tier 1 Tier 2 Tier 2C Tier 2D **Total** Tier 1 Tier 2 Tier 1 Tier 2 **Total** Alameda County (101) \$147,018 \$6,308 \$73,915 \$1,976 \$57,758 \$6,361 \$76,130 \$2,067 \$60,916 \$666 \$878 \$615 \$845 \$141,417 Medical Center (106) 32,789 1,183 31,606 1,170 30,593 31,763 Superior Court (632) 973 8,204 9,177 961 7,941 8,902 First 5 (714) 824 824 797 797 Housing Authority (103) 1,047 10 1,057 1,031 10 1,041 LARPD (104) 180 \$950 1,130 177 \$803 980 Office of Education (105) 16 16 16 16 \$9,760 \$116,774 \$950 \$192,011 Total \$2,067 \$60,916 \$666 \$878 \$9,663 \$113,256 \$803 \$1,976 \$57,758 \$615 \$845 \$184,916

#### December 31, 2011 Projected Total Compensation (\$000s)

		General			Saf	Safety		
Employer Name (Code)	Tier 1	Tier 2	Tier 3	Tier 1	Tier 2	Tier 2C	Tier 2D	<u>Total</u>
Alameda County (101)	\$35,819	\$452,080		\$3,682	\$139,780	\$1,496	\$2,086	\$634,943
Medical Center (106)	6,548	184,290						190,838
Superior Court (632)	5,382	47,839						53,221
First 5 (714)		4,803						4,803
Housing Authority (103)	4,533	45						4,578
LARPD (104)	778		\$3,257					4,035
Office of Education (105)	71							71
Total	\$53,131	\$689,057	\$3,257	\$3,682	\$139,780	\$1,496	\$2,086	\$892,489

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<sup>(1)</sup> Contribution calculated using projected compensation provided below for the December 31, 2011 valuation: