**Alameda County Employees' Retirement Association** 

Actuarial Valuation and Review as of December 31, 2010

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

April 12, 2011

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, 2010. It summarizes the actuarial data used in the valuation, establishes the funding requirements for fiscal 2011-2012 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

Poul Crylo

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

Drely Yeung

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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, 2010. 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, 2010, provided by the Retirement Association;
- > The assets of the Plan as of December 31, 2010, 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, 2010 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, 2010 over a declining 22-year period. The aggregate employer contribution rate calculated using the declining 22-year amortization period is 20.84% of payroll. In this valuation, we have applied the 7.90% net investment earnings, 3.50% inflation, and 0.50% across-the-board salary increase assumptions adopted by the Board. The 7.90% 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, 2011 through June 30, 2012.

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

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

Ref: Pg. 50

- > In the December 31, 2009 valuation, the ratio of the valuation value of assets to actuarial accrued liabilities was 81.2%. In this December 31, 2010 valuation, the funding ratio has declined to 77.5%.
- > The Association's unfunded actuarial accrued liability (UAAL) as of December 31, 2009 was \$1,110.3 million. In this year's valuation, the UAAL has increased to \$1,386.6 million.

Ref: Pg. 8 and Pg. 45

- > The Plan has a net actuarial experience loss of about \$245.9 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 \$4.5 million for the implicit retiree health benefit subsidy paid by the County for 2010 (note that this amount is an estimated amount provided by ACERA). The \$4.5 million together with the unused credit from prior years' transfer have been amortized over 22 years.

Ref: Pg. 22 and Pg. 83

> The aggregate employer rate calculated in this valuation has increased from 18.57% of payroll to 20.84% of payroll. The reason for this change is lower than expected return on investments (after smoothing) and amortizing the prior year's UAAL over a smaller than expected projected total payroll. These losses were partially offset by gains from: (i) lower than expected salary increases for active members and (ii) lower than expected COLA increases for retired members. A reconciliation of the Association's aggregate employer rate is provided in Section 2, Subsection D (see Chart 15). A schedule of the projected contributions by each participating employer is provided in Appendix B.

Ref: Pg. 23 and Pg. 68

> The <u>aggregate</u> member rate calculated in this valuation has increased slightly from 8.67% of payroll to 8.68% of payroll as a result of change in membership demographics. 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 valuation as of December 31, 2010. These rates are provided in Appendix A of this report.

Ref: Pg. 6

> As indicated in Section 2, Subsection B (see Chart 7) of this report, the total unrecognized investment losses as of December 31, 2010 is \$263.4 million (in the previous valuation, this amount was \$776.9 million). These investment losses 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, 2010. This implies that if the Association earns the assumed net rate of investment return of 7.90% 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 7.90% rate and all other actuarial assumptions are met, the contribution requirements would increase in each of the next few years.

The deferred losses of \$263.4 million represent 5.0% of the market value of assets as of December 31, 2010. Unless offset by future investment gains or other favorable experience, the recognition of the \$263.4 million market losses 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 77.5% to 73.2%.
- If the deferred losses were recognized immediately and entirely in the valuation value of assets, the aggregate employer rate would increase from 20.84% to about 22.8% of payroll.
- > The actuarial valuation report as of December 31, 2010 is based on financial information as of that date. Changes in the value of assets subsequent to that date, to the extent that they exist, 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 October 17, 2010, all new members hired in the Sheriff's Department (excluding Probation Officers) can elect to enter either Safety Tier 2C (2% @ 50 formula) or Safety Tier 2D (3% @ 55 formula). In our special study report dated July 28, 2010, we estimated the contribution rates for these new tiers before we had data on actual members who would be covered by the two tiers. As part of the December 31, 2010 valuation, ACERA reported four active members enrolled in each of Tiers 2C and 2D as of November 30, 2010. We also understand that new members hired in the Probation Department can elect to enter either Tier 2C or 2D effective retroactively on October 17, 2010. As directed by ACERA, we have calculated the Entry Age Normal Cost rates for these two tiers based not only on the active members reported by ACERA (based only on the employees of the Sheriff's Department), but also by augmenting the membership profile to anticipate the future members from employees of the Probation Department. The profile of future Probation members is based on employees hired in that Department on or after October 17, 2010. The increase in the employer and member rates between the estimates we provided in our July 28, 2010 study and this valuation is primarily due to the inclusion of Probation members who were anticipated to enter the two tiers at a higher average entry age than Sheriff members.

# **Impact of Future Experience on Contribution Rates**

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

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

	Decemb	er 31, 2010	December 31, 2009		
Employer Contribution Rates:		Estimated		Estimated	
<u>County</u>	Total Rate	Annual Amount (1)	Total Rate	Annual Amount (1	
General Tier 1	17.61%	\$7,583	15.78%	\$6,795	
General Tier 2	16.35	73,260	14.47	64,836	
Safety Tier 1	53.65	3,068	48.72	2,786	
Safety Tier 2	41.32	59,810	37.14	53,760	
Safety Tier 2C	41.14	113	36.37	99	
Safety Tier 2D	40.50	108	34.36	92	
County Combined	22.42	143,942	20.00	128,368	
ACMC/Court/First 5					
General Tier 1	17.86	2,534	15.98	2,267	
General Tier 2	16.60	38,644	14.67	34,152	
<u>District</u>					
General Tier 1	22.74	1,339	20.79	1,225	
General Tier 3	24.66	824	24.12	805	
All Combined	20.84	187,283	18.57	166,817	
Average Member Contribution Rates:		Estimated		Estimated	
	Total Rate	Annual Amount (1)	Total Rate (2)	Annual Amount (1	
General Tier 1	9.79%	\$6,181	9.78%	\$6,175	
General Tier 2	7.29	49,635	7.28	49,567	
General Tier 3	12.74	425	12.76	426	
Safety Tier 1	13.33	762	13.35	763	
Safety Tier 2	14.41	20,858	14.40	20,844	
Safety Tier 2C	11.51	32	11.48	31	
Safety Tier 2D	17.41	46	17.36	46	
All Categories Combined	8.68	77,939	8.67	77,852	
Funded Status:					
Actuarial Accrued Liability (3)	\$6,162,740		\$5,899,331		
Valuation Value of Assets (4)	4,776,128		4,789,000		
Funded Percentage	77.5%		81.2%		
Unfunded Actuarial Accrued Liability	\$1,386,612		\$1,110,331		
Key Economic Assumptions:					
Interest Rate	7.90%		7.90%		
Inflation Rate	3.50%		3.50%		
Across-the-Board Salary Increase	0.50%		0.50%		

<sup>(1)</sup> Based on December 31, 2010 projected annual compensation.

<sup>(2)</sup> Average rates have been recalculated by applying the individual entry age based member rates determined in the December 31, 2009 valuation to the Association membership as of December 31, 2010.

<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, 2010	December 31, 2009	Percentage Change
Active Members:			
Number of members	10,879	10,927	-0.4%
Average age	47.4	47.2	N/A
Average service	11.6	11.5	N/A
Projected total compensation	\$898,342,000	\$882,606,000	1.8%
Average projected compensation	\$82,576	\$80,773	2.2%
Retired Member and Beneficiaries:			
Number of members:			
Service retired	5,702	5,478	4.1%
Disability retired	794	790	0.5%
Beneficiaries	1,062	1,065	-0.3%
Total	7,558	7,333	3.1%
Average age	70.4	70.5	N/A
Average monthly benefit (1)	\$3,067	\$2,914	5.3%
Vested Terminated Members:			
Number of vested terminated members (2)	1,785	1,816	-1.7%
Average age	48.2	47.8	N/A
Summary of Financial Data (dollar amounts in thousands):			
Market value of assets	\$5,224,495	\$4,676,880	11.7%
Return on market value of assets	13.72%	25.33%	N/A
Actuarial value of assets	\$5,487,858	\$5,453,769	0.6%
Return on actuarial value of assets	2.26%	3.94%	N/A
Valuation value of assets	\$4,776,128	\$4,789,000	-0.3%
Return on valuation value of assets	0.77%	4.12%	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: 2001 – 2010

Year Ended December 31	Active Members	Vested Terminated Members*	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
2001	10,974	1,025	5,867	0.63
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

<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 10,879 active members with an average age of 47.4 years, average years of service of 11.6 and average compensation of \$82,576. The 10,927 active members in the prior valuation had an average age of 47.2 years, average service of 11.5 and average compensation of \$80,773.

#### **Inactive Members**

In this year's valuation, there were 1,785 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their member contributions versus 1,816 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, 2010 based on census data collected as of November 30, 2010.

CHART 2
Distribution of Active Members by Age as of December 31, 2010

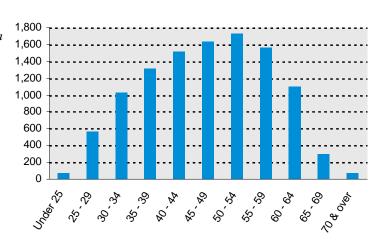
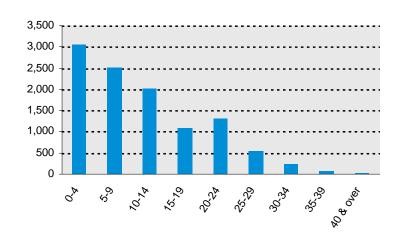


CHART 3
Distribution of Active Members by Years of Service as of December 31, 2010



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

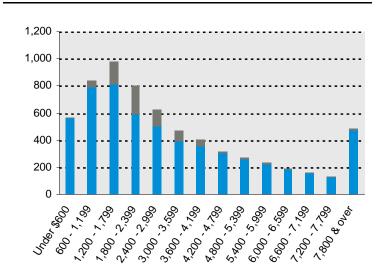
As of December 31, 2010, 6,496 retired members and 1,062 beneficiaries were receiving total monthly benefits of \$23,181,626. For comparison, in the previous valuation, there were 6,268 retired members and 1,065 beneficiaries receiving monthly benefits of \$21,369,663. These monthly benefits exclude 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, 2010 based on census data collected as of November 30, 2010.

■ Disability■ Regular

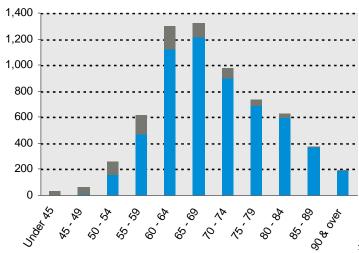
CHART 4

Distribution of Retired Members (Excl. Beneficiaries) by Type and by Monthly Amount as of December 31, 2010



#### **CHART 5**

Distribution of Retired Members (Excl. Beneficiaries) by Type and by Age as of December 31, 2010



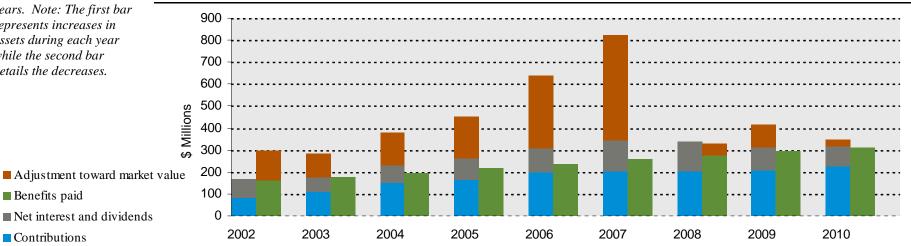
#### **B. FINANCIAL INFORMATION**

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 nine 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 2010



■ 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, 2010

	Six Month	Period	Total Actual Market	Expected Market	Investment	Deferred	Deferred
	From	То	Return (net)	Return (net)	Gain (Loss)	Factor	Return
-	01/01/2006	06/30/2006	\$156,835,279	\$179,867,988	\$(23,032,709)	0.0	\$0
	07/01/2006	12/31/2006	470,691,714	187,573,480	283,118,234	0.1	28,311,823
	01/01/2007	06/30/2007	365,085,677	205,298,089	159,787,588	0.2	31,957,518
	07/01/2007	12/31/2007	54,493,128	221,394,733	(166,901,605)	0.3	(50,070,482)
	01/01/2008	06/30/2008	(440,360,426)	222,347,812	(662,708,239)	0.4	(265,083,295)
	07/01/2008	12/31/2008	(1,257,698,668)	203,277,365	(1,460,976,033)	0.5	(730,488,016)
	01/01/2009	06/30/2009	252,817,171	151,382,559	101,434,612	0.6	60,860,767
	07/01/2009	12/31/2009	700,848,916	159,815,655	541,033,261	0.7	378,723,283
	01/01/2010	06/30/2010	(171,083,230)	186,202,514	(357,285,743)	0.8	(285,828,595)
	07/01/2010	12/31/2010	806,700,469	175,307,561	631,392,909	0.9	568,253,618
1.	Total Deferred Re	eturn					\$(263,363,379)
2.	Net Market Value	<b>?</b>					5,224,494,880
3.	Actuarial Value o	f Assets (Item 2 – Ite	em 1)				5,487,858,259
4.	Actuarial Value a	s a Percentage of Ma	rket Value (Before Con	rridor; Item 3 / Item 2)			105.0%
5.	Actuarial Value o	f Assets – Corridor I	Limits:				
	a. Lower Limit	- 60% of Net Marke	et Value				3,134,696,928
	b. Upper Limit	- 140% of Net Mark	tet Value				7,314,292,832
6.	Actuarial Value o	f Assets (within corr	idor)				5,487,858,259
7.	Non-valuation res	serves and designatio	ns:				
	a. Reserve for l	Interest Fluctuations	(Contingency Reserve)	, but no less than \$0			81,117,680
	b. Supplementa	al Retirees Benefit Re	eserve (SRBR)				624,166,664
	c. Other Non-V	Valuation Reserves (I	Death Benefit-Burial &	401(h) Reserves)			10,945,448
	d. SRBR Trans	fer to Employer Adv	ance Reserve*				(4,500,000)
	e. Subtotal						\$711,729,792
8.	Valuation Value of	of Assets (Item 6 – It	em 7e)				\$4,776,128,467

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

Note: Results may not add due to rounding.

6

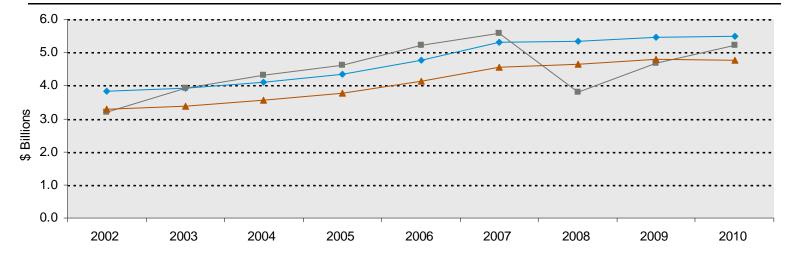
<sup>\*</sup> Estimate provided by ACERA.

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 nine years.

CHART 8

Market Value, Actuarial Value and Valuation Value of Assets as of December 31, 2002 – 2010



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 \$245.9 million, a net loss of \$339.3 million from investments and a gain of \$93.4 million from all other sources. The net experience variation from individual sources other than investments was 1.5% 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, 2010

1.	Net loss from investments (1)	\$339,297,000
2.	Net gain from other experience (2)	(93,374,000)
3.	Net experience loss: $(1) + (2)$	\$245,923,000

<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%. The actual rate of return on a valuation basis for the 2010 plan year was 0.77%.

Since the actual return for the year was less than the assumed return, ACERA experienced an actuarial loss during the year ended December 31, 2010 with regard to its investments.

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

#### CHART 10

Investment Experience for Year Ended December 31, 2010 – Valuation Value, Actuarial Value, and Market Value of Assets

	Valuation Value	Actuarial Value	Market Value
1. Actual return	\$36,890,575	\$122,091,092	\$635,617,239
2. Average value of assets	4,761,868,689	5,409,768,143	4,632,878,618
3. Actual rate of return: $(1) \div (2)$	0.77%	2.26%	13.72%
4. Assumed rate of return	7.90%	7.90%	7.90%
5. Expected return: (2) x (4)	376,187,626	427,371,683	365,997,411
6. Actuarial gain/(loss): $(1) - (5)$	<u>\$(339,297,051)</u>	<u>\$(305,280,591)</u>	<u>\$269,619,828</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 nine years. Based on the assumptions adopted by the Board for the December 31, 2010 valuation, the investment return assumption remained at 7.90%.

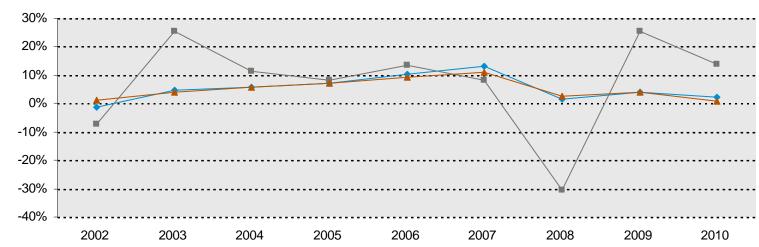
CHART 11
Investment Return – Valuation Value, Actuarial Value and Market Value: 2002 - 2010

	Valuatior Investmen		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%	
Nine-Year Average Return		5.02%		5.17%		6.09%	

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 Rates of Return for Years Ended December 31, 2002 - 2010





11

# **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, 2010 amounted to \$93.4 million which is 1.5% 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 22-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 (Dollar Amounts in Thousands)

	December 31, 2010						December 31, 2009	
County Only	BASIC		COLA		TOTAL		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	7.95%	\$3,423	2.44%	\$1,051	10.39%	\$4,474	10.42%	\$4,487
UAAL (Before POB Credit)	10.16%	4,375	2.19%	943	12.35%	5,318	10.37%	4,465
Pension Obligation Bond Credit	-3.33%	-1,434	-1.55%	-667	-4.88%	-2,101	-4.81%	-2,071
Implicit Retiree Health Benefit Subsidy	<u>-0.25%</u>	<u>-108</u>	0.00%	<u>0</u>	<u>-0.25%</u>	<u>-108</u>	<u>-0.20%</u>	<u>-86</u>
Total Contribution	14.53%	\$6,256	3.08%	\$1,327	17.61%	\$7,583	15.78%	\$6,795
General Tier 2 Members								
Normal Cost	7.71%	\$34,546	1.42%	\$6,363	9.13%	\$40,909	9.11%	\$40,819
UAAL (Before POB Credit)	10.16%	45,524	2.19%	9,813	12.35%	55,337	10.37%	46,465
Pension Obligation Bond Credit	-3.33%	-14,921	-1.55%	-6,945	-4.88%	-21,866	-4.81%	-21,552
Implicit Retiree Health Benefit Subsidy	<u>-0.25%</u>	<u>-1,120</u>	0.00%	<u>0</u>	<u>-0.25%</u>	<u>-1,120</u>	<u>-0.20%</u>	<u>-896</u>
Total Contribution	14.29%	\$64,029	2.06%	\$9,231	16.35%	\$73,260	14.47%	\$64,836
Safety Tier 1 Members								
Normal Cost	22.47%	\$1,284	8.28%	\$474	30.75%	\$1,758	29.95%	\$1,712
Member Cost Sharing Contributions	-3.00%	-171	0.00%	0	-3.00%	-171	-3.00%	-171
(Adjusted for Refunds)								
UAAL (Before POB Credit)	24.59%	1,406	6.01%	343	30.60%	1,749	26.22%	1,499
Pension Obligation Bond Credit	-2.76%	-158	-1.69%	-96	-4.45%	-254	-4.25%	-243
Implicit Retiree Health Benefit Subsidy	<u>-0.25%</u>	<u>-14</u>	0.00%	<u>0</u>	<u>-0.25%</u>	<u>-14</u>	<u>-0.20%</u>	<u>-11</u>
Total Contribution	41.05%	\$2,347	12.60%	\$721	53.65%	\$3,068	48.72%	\$2,786



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

**CHART 13 (continued)** 

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

			Decembe	er 31, 2010			December 31,	2009
County Only	В	ASIC	C	DLA	то	TAL	BASIC AN COMBI	
	<u>Rate</u>	Estimated Annual <u>Amount</u> *	Rate	Estimated Annual <u>Amount*</u>	Rate	Estimated Annual <u>Amount*</u>	<u>Rate</u>	Estimated Annual <u>Amount*</u>
Safety Tier 2 Members								
Normal Cost	15.43%	\$22,335	2.94%	\$4,255	18.37%	\$26,590	18.32%	\$26,518
Member Cost Sharing Contributions	-2.95%	-4,270	0.00%	0	-2.95%	-4,270	-2.95%	-4,270
(Adjusted for Refunds)								
UAAL (Before POB Credit)	24.59%	35,594	6.01%	8,699	30.60%	44,293	26.22%	37,953
Pension Obligation Bond Credit	-2.76%	-3,995	-1.69%	-2,446	-4.45%	-6,441	-4.25%	-6,152
Implicit Retiree Health Benefit Subsidy	<u>-0.25%</u>	<u>-362</u>	0.00%	<u>0</u>	<u>-0.25%</u>	<u>-362</u>	<u>-0.20%</u>	<u>-289</u>
Total Contribution	34.06%	\$49,302	7.26%	\$10,508	41.32%	\$59,810	37.14%	\$53,760
Safety Tier 2C Members								
Normal Cost	12.65%	\$35	2.59%	\$7	15.24%	\$42	14.60%	\$40
Member Cost Sharing Contributions	0.00%	0	0.00%	0	0.00%	0	0.00%	0
(Adjusted for Refunds)								
UAAL (Before POB Credit)	24.59%	67	6.01%	17	30.60%	84	26.22%	72
Pension Obligation Bond Credit	-2.76%	-8	-1.69%	-4	-4.45%	-12	-4.25%	-12
Implicit Retiree Health Benefit Subsidy	<u>-0.25%</u>	<u>-1</u>	0.00%	<u>0</u>	<u>-0.25%</u>	<u>-1</u>	<u>-0.20%</u>	<u>-1</u>
Total Contribution	34.23%	\$93	6.91%	\$20	41.14%	\$113	36.37%	\$99



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

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

Recommended Employer Contribution Rates (Dollar Amounts in Thousands)

**December 31, 2010 December 31, 2009 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 16.34% \$44 3.10% \$8 19.44% \$52 17.44% \$47 Member Cost Sharing Contributions -4.84% -13 0.00% 0 -4.84% -13 -4.85% -13 (Adjusted for Refunds) UAAL (Before POB Credit) 24.59% 66 6.01% 16 30.60% 82 26.22% 70 Pension Obligation Bond Credit -2.76% -7 -1.69% -5 -4.45% -12 -4.25% -11 Implicit Retiree Health Benefit Subsidy 0.00% -0.25% 0 -0.25% <u>-1</u> -0.20% <u>-1</u> <u>-1</u> **Total Contribution** 33.08% \$89 7.42% \$19 40.50% \$108 34.36% \$92 **All County Categories Combined** Normal Cost 9.60% 1.90% \$12,158 11.47% \$73.623 \$61,667 11.50% \$73,825 Member Cost Sharing Contributions -0.69% 0.00% 0 -0.69% -0.69% -4,454 -4,454 -4,454 (Adjusted for Refunds) **UAAL** (Before POB Credit) 3.09% 19,831 14.10% 90,524 13.55% 87,032 16.64% 106,863 Pension Obligation Bond Credit -3.20% -20,523 -1.58% -4.78% -30,686 -4.68% -30,041 -10,163 Implicit Retiree Health Benefit Subsidy -0.25% <u>-1,606</u> 0.00% 0 -0.25% <u>-1,606</u> -0.20% -1,284**Total Contribution** \$21,826 \$143,942 20.00% \$128,368 19.01% \$122,116 3.41% 22.42%



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

CHART 13 (continued)

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

			Decembe	er 31, 2010			December	31, 2009
ACMC, Court & First 5 Only	BASIC		COLA		TOTAL		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	7.95%	\$1,128	2.44%	\$346	10.39%	\$1,474	10.42%	\$1,478
UAAL (Before POB Credit)	10.16%	1,441	2.19%	311	12.35%	1,752	10.37%	1,471
Pension Obligation Bond Credit	<u>-3.33%</u>	<u>-472</u>	<u>-1.55%</u>	<u>-220</u>	<u>-4.88%</u>	<u>-692</u>	<u>-4.81%</u>	<u>-682</u>
Total Contribution	14.78%	\$2,097	3.08%	\$437	17.86%	\$2,534	15.98%	\$2,267
General Tier 2 Members								
Normal Cost	7.71%	\$17,948	1.42%	\$3,306	9.13%	\$21,254	9.11%	\$21,208
UAAL (Before POB Credit)	10.16%	23,652	2.19%	5,098	12.35%	28,750	10.37%	24,141
Pension Obligation Bond Credit	<u>-3.33%</u>	<u>-7,752</u>	<u>-1.55%</u>	<u>-3,608</u>	<u>-4.88%</u>	<u>-11,360</u>	<u>-4.81%</u>	<u>-11,197</u>
Total Contribution	14.54%	\$33,848	2.06%	\$4,796	16.60%	\$38,644	14.67%	\$34,152

**CHART 13 (continued)** 

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

			Decembe	er 31, 2010			December	31, 2009
Other Districts	BASIC		COLA		TOTAL		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	7.95%	\$468	2.44%	\$144	10.39%	\$612	10.42%	\$614
UAAL	10.16%	<u>598</u>	2.19%	<u>129</u>	12.35%	<u>727</u>	10.37%	<u>611</u>
Total Contribution	18.11%	\$1,066	4.63%	\$273	22.74%	\$1,339	20.79%	\$1,225
General Tier 3 Members								
Normal Cost	10.98%	\$367	3.60%	\$120	14.58%	\$487	14.23%	\$475
UAAL	8.39%	<u>280</u>	1.69%	<u>57</u>	10.08%	<u>\$337</u>	9.89%	<u>330</u>
Total Contribution	19.37%	\$647	5.29%	\$177	24.66%	\$824	24.12%	\$805
All Categories Combined								
All Categories Combined								
Normal Cost (Net)	8.59%	\$77,124	1.78%	\$16,074	10.37%	\$93,198	10.35%	\$92,944
UAAL (Net)	9.20%	<u>82,650</u>	1.27%	11,435	10.47%	94,085	8.22%	<u>73,873</u>
Total Contribution	17.79%	\$159,774	3.05%	\$27,509	20.84%	\$187,283	18.57%	\$166,817

<sup>\*</sup> Amounts are in thousands and are based on the December 31, 2010 annual payroll (also in thousands) shown on the following page.



# CHART 13 (continued)

**Recommended Employer Contribution Rates (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	\$43,058	\$14,187	\$5,889	\$63,134
General Tier 2	448,069	232,794		680,863
General Tier 3			3,339	3,339
Safety Tier 1	5,716			5,716
Safety Tier 2	144,749			144,749
Safety Tier 2C	274			274
Safety Tier 2D	267			267
Total	\$642,133	\$246,981	\$9,228	\$898,342

# **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	17%	21%
Service retirement and other benefits	83%	<u>79%</u>
	100%	100%

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

The employer contribution rates as of December 31, 2010 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, 2009 to December 31, 2010 (Dollars in Thousands)

	Contribution Rate	Estimated Amount*
Recommended Contribution Rate as of December 31, 2009	18.57%	\$166,817
Effect of actuarial experience during 2010:		
1. Effect of investment loss	2.56%	\$22,998
2. Effect of lower than expected salary increases for actives	-0.61	-5,480
3. Effect of amortizing prior year's UAAL over a smaller than expected projected total payroll	0.18	1,617
4. Effect of lower than expected COLA increases for retirees and beneficiaries	-0.05	-449
<ol> <li>Effect of other experience (gain)/loss         (primarily due to scheduled delay in implementing contribution rate after date of valuation)</li> </ol>	0.19	1,780
Subtotal	2.27%	\$20,466
Recommended Contribution Rate as of December 31, 2010	20.84%	\$187,283

<sup>\*</sup> Based on December 31, 2010 projected compensation.

The member contribution rates as of December 31, 2010 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, 2009 to December 31, 2010 (Dollar Amounts in Thousands)

	<b>Contribution Rate</b>	Estimated Amount*
Average Contribution Rate as of December 31, 2009	8.67%	\$77,852
Effect of change in membership demographics	0.01%	87
Average Contribution Rate as of December 31, 2010	8.68%	\$77,939

<sup>\*</sup> Based on December 31, 2010 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, 2009 was 81.2%. This year's funded ratio decreased to 77.5%.

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

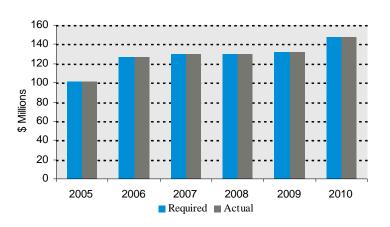
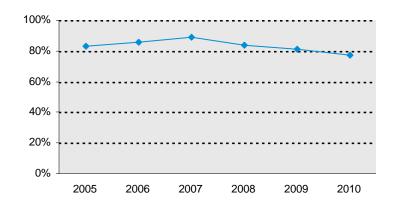


CHART 18 Funded Ratio



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

EXHIBIT A

Table of Plan Coverage
i. General Tier 1

	Year Ended	December 31	
Category	2010	2009	– Change From Prior Year
Active members in valuation			
Number	726	831	-12.6%
Average age	57.1	56.8	N/A
Average service	27.2	27.1	N/A
Projected total compensation	\$63,133,789	\$71,887,788	-12.2%
Projected average compensation	\$86,961	\$86,508	0.5%
Member account balances	\$209,979,437	\$241,594,647	-13.1%
Total active vested members	698	804	-13.2%
Vested terminated members			
Number	155	184	-15.8%
Average age	57.5	56.7	N/A
Retired members			
Number in pay status	3,572	3,583	-0.3%
Average age	73.9	73.9	N/A
Average monthly benefit <sup>(1)</sup>	\$3,349	\$3,142	6.6%
Disabled members			
Number in pay status	213	224	-4.9%
Average age	68.6	68.4	N/A
Average monthly benefit <sup>(1)</sup>	\$2,454	\$2,307	6.4%
Beneficiaries			
Number in pay status	771	785	-1.8%
Average age	77.9	77.9	N/A
Average monthly benefit <sup>(1)</sup>	\$1,514	\$1,426	6.2%

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

Note: Based on the data provided for the December 31, 2010 actuarial valuation, the average age at retirement for the General Tier 1 service retirees and disabled retirees was 59.1 and 52.1, 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	2010	2009	– Change From Prior Year	
Active members in valuation				
Number	8,615	8,523	1.1%	
Average age	47.5	47.2	N/A	
Average service	10.4	10.0	N/A	
Projected total compensation	\$680,863,332	\$655,212,046	3.9%	
Projected average compensation	\$79,032	\$76,876	2.8%	
Member account balances	\$530,810,204	\$509,260,509	4.2%	
Total active vested members	6,020	5,848	2.9%	
Vested terminated members				
Number	1,461	1,465	-0.3%	
Average age	47.6	47.0	N/A	
Retired members				
Number in pay status	1,248	1,071	16.5%	
Average age	66.9	66.6	N/A	
Average monthly benefit <sup>(1)</sup>	\$1,764	\$1,653	6.7%	
Disabled members				
Number in pay status	370	362	2.2%	
Average age	59.4	58.4	N/A	
Average monthly benefit <sup>(1)</sup>	\$2,022	\$1,966	2.8%	
Beneficiaries				
Number in pay status	114	110	3.6%	
Average age	59.0	58.9	N/A	
Average monthly benefit <sup>(1)</sup>	\$1,072	\$1,014	5.7%	

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

Note: Based on the data provided for the December 31, 2010 actuarial valuation, the average age at retirement for the General Tier 2 service retirees and disabled retirees was 61.3 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 I	Year Ended December 31		
Category	2010	2009	– Change From Prior Year	
Active members in valuation				
Number	50	53	-5.7%	
Average age	49.0	48.0	N/A	
Average service	11.1	12.7	N/A	
Projected total compensation	\$3,339,024	\$3,582,776	-6.8%	
Projected average compensation	\$66,780	\$67,600	-1.2%	
Member account balances	\$4,888,178	\$6,097,265	-19.8%	
Total active vested members	34	36	-5.6%	
Vested terminated members				
Number	3	1	200.0%	
Average age	43.1	32.0	N/A	
Retired members				
Number in pay status	7	3	133.3%	
Average age	61.0	60.7	N/A	
Average monthly benefit <sup>(1)</sup>	\$5,439	\$4,860	11.9%	
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: Based on the data provided for the December 31, 2010 actuarial valuation, the average age at retirement for the General Tier 3 service retirees was 60.0.

For all the General Tiers combined, the average age at retirement for the service retirees and disabled retirees was 59.6 and 51.0, respectively.

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

EXHIBIT A

Table of Plan Coverage
iv. Safety Tier 1

	Year Ended	Year Ended December 31		
Category	2010	2009	– Change From Prior Year	
Active members in valuation				
Number	41	57	-28.1%	
Average age	55.6	55.0	N/A	
Average service	26.3	26.6	N/A	
Projected total compensation	\$5,715,529	\$7,453,114	-23.3%	
Projected average compensation	\$139,403	\$130,756	6.6%	
Member account balances	\$19,735,613	\$26,773,942	-26.3%	
Total active vested members	41	57	-28.1%	
Vested terminated members				
Number	25	31	-19.4%	
Average age	52.7	53.0	N/A	
Retired members				
Number in pay status	682	674	1.2%	
Average age	66.2	65.7	N/A	
Average monthly benefit <sup>(1)</sup>	\$6,418	\$6,185	3.8%	
Disabled members				
Number in pay status	108	106	1.9%	
Average age	64.0	63.3	N/A	
Average monthly benefit <sup>(1)</sup>	\$4,634	\$4,506	2.8%	
Beneficiaries				
Number in pay status	141	137	2.9%	
Average age	70.6	69.9	N/A	
Average monthly benefit <sup>(1)</sup>	\$2,381	\$2,280	4.4%	

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

Note: Based on the data provided for the December 31, 2010 actuarial valuation, the average age at retirement for the Safety Tier 1 service retirees and disabled retirees was 54.8 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	2010	2009	– Change From Prior Year
Active members in valuation			
Number	1,439	1,463	-1.6%
Average age	41.9	41.5	N/A
Average service	10.9	10.4	N/A
Projected total compensation	\$144,749,126	\$144,470,370	0.2%
Projected average compensation	\$100,590	\$98,749	1.9%
Member account balances	\$188,196,640	\$179,094,920	5.1%
Total active vested members	1,040	1,014	2.6%
Vested terminated members			
Number	141	135	4.4%
Average age	44.0	43.6	N/A
Retired members			
Number in pay status	193	147	31.3%
Average age	60.8	61.1	N/A
Average monthly benefit <sup>(1)</sup>	\$4,278	\$3,815	12.1%
Disabled members			
Number in pay status	103	98	5.1%
Average age	54.6	54.2	N/A
Average monthly benefit <sup>(1)</sup>	\$3,087	\$2,944	4.9%
Beneficiaries			
Number in pay status	36	33	9.1%
Average age	50.9	49.8	N/A
Average monthly benefit <sup>(1)</sup>	\$1,763	\$1,741	1.3%

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

Note: Based on the data provided for the December 31, 2010 actuarial valuation, the average age at retirement for the Safety Tier 2 service retirees and disabled retirees was 56.4 and 46.1, 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	2010	2009	– Change From Prior Year
Active members in valuation			
Number	4	0	N/A
Average age	29.2	N/A	N/A
Average service	1.3	N/A	N/A
Projected total compensation	\$274,074	N/A	N/A
Projected average compensation	\$68,519	N/A	N/A
Member account balances	\$20,036	N/A	N/A
Total active vested members	0	N/A	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	2010	2009	– Change From Prior Year
Active members in valuation			
Number	4	0	N/A
Average age	34.5	N/A	N/A
Average service	2.1	N/A	N/A
Projected total compensation	\$266,851	N/A	N/A
Projected average compensation	\$66,713	N/A	N/A
Member account balances	\$33,477	N/A	N/A
Total active vested members	0	N/A	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 55.2 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 59.0 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											
	\$51,197	\$51,197											
30 - 34	4	3	1										
	57,329	52,771	\$71,002										
35 - 39	7	6	1										
	58,083	56,403	68,161										
40 - 44	10	2	7		1								
	63,831	74,076	61,765		\$57,803								
45 - 49	36	3	5	2	1	5	14	6					
	67,375	54,033	61,267	\$63,267	70,046	\$59,689	\$74,130	\$70,706					
50 - 54	153	1	3	7	9	25	57	46	5				
	82,919	50,969	71,424	74,004	69,790	90,880	85,728	80,584	\$81,972				
55 - 59	290	4	6	6	11	31	91	98	38	5			
	89,372	54,059	84,402	80,174	96,010	84,577	96,086	90,237	80,965	\$74,474			
60 - 64	186	4	7	8	5	23	55	54	26	4			
	92,587	113,303	73,320	85,117	82,200	78,645	89,229	97,070	103,666	127,319			
65 - 69	28		1		2	1	9	7	3	5			
	104,885		50,574		97,677	85,523	99,550	103,135	64,415	158,837			
70 & over	7					1		1		5			
	59,393					47,896		50,199		63,532			
Total	726	28	31	23	29	86	226	212	72	19			
	\$86,961	\$63,692	\$69,753	\$78,545	\$83,394	\$82,960	\$90,583	\$89,567	\$88,543	\$104,920			

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	54	54										
	\$53,080	\$53,080										
25 - 29	423	373	48	2								
	62,172	62,653	\$58,322	\$64,903								
30 - 34	814	506	252	56								
	71,441	71,484	73,196	63,156								
35 - 39	1,013	416	368	204	23	2						
	77,707	76,693	79,783	76,760	\$72,597	\$61,751						
40 - 44	1,227	345	350	334	136	61	1					
	80,840	77,741	82,360	83,595	82,592	70,496	\$90,317					
45 - 49	1,330	293	320	270	193	213	41					
	80,730	78,232	80,397	79,936	83,995	82,123	83,812					
50 - 54	1,395	273	297	277	209	269	69	1				
	81,826	80,442	78,025	80,257	83,584	86,796	84,277	\$150,284				
55 - 59	1,187	180	243	240	181	255	87	1				
	83,121	78,491	80,414	78,767	84,979	86,303	99,007	89,719				
60 - 64	862	123	175	187	146	184	42	4	1			
	81,857	80,119	76,948	81,006	80,808	84,611	100,534	105,373	\$81,262			
65 - 69	253	32	74	58	44	36	9					
	80,768	89,707	75,034	81,704	78,385	85,868	81,346					
70 & over	57	6	17	6	12	15			1			
	78,232	80,276	79,312	68,456	89,172	72,825			56,109			
Total	8,615	2,601	2,144	1,634	944	1,035	249	6	2			
	\$79,032	\$74,337	\$78,470	\$79,720	\$82,924	\$84,081	\$92,008	\$110,249	\$68,685			

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

**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	1	1									
	\$51,209	\$51,209									
30 - 34	5	4	1								
	55,684	53,744	\$63,442								
35 - 39	2			2							
	63,918			\$63,918							
40 - 44	5	1	3			1					
	61,936	73,992	58,480			\$60,249					
45 - 49	11	3	4	1	2	1					
	65,147	61,145	62,981	77,370	\$70,431	63,028					
50 - 54	9	2	1	2	2		1	1			
	67,051	72,180	52,941	77,150	59,144		\$62,969	\$70,598			
55 - 59	17	5	4	1	1	4	2				
	73,636	74,434	79,387	65,785	60,908	75,853	65,993				
60 - 64											
65 - 69											
70 & over											
Total	50	16	13	6	5	6	3	1			
	\$66,780	\$65,009	\$66,253	\$70,882	\$64,012	\$71,115	\$64,985	\$70,598			

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	3						3					
	\$158,906						\$158,906					
50 - 54	19				2	4	9	4				
	157,672				\$118,551	\$139,940	148,730	\$215,085				
55 - 59	10		4			3	1	2				
	124,216		\$136,353			113,817	100,903	127,197				
60 - 64	8					1	2	3	1	1		
	115,274					92,808	88,413	109,403	\$108,685	\$215,668		
65 - 69												
70 & over	1									1		
	78,690									\$78,690		
Total	41		4		2	8	15	9	1	2		
	\$139,403		\$136,353		\$118,551	\$124,252	\$139,534	\$160,327	\$108,685	\$147,179		

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

**EXHIBIT B** 

## v. Safety Tier 2

					Yea	ars of Serv	/ice	
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30 & Over
Under 25	11	11						
	\$82,493	\$82,493						
25 - 29	135	112	23					
	89,495	86,731	\$102,954					
30 - 34	205	96	82	27				
	96,421	86,045	102,826	\$113,857				
35 - 39	296	70	94	122	10			
	97,425	85,318	96,331	102,731	\$127,737			
40 - 44	266	43	66	102	40	15		
	99,746	87,348	97,061	99,143	114,442	\$112,002		
45 - 49	251	27	27	62	29	92	14	
	108,565	87,964	100,274	103,346	110,799	117,285	\$125,472	
50 - 54	152	28	14	24	16	50	20	
	107,746	106,196	101,372	99,229	105,222	109,110	123,205	
55 - 59	61	10	11	8	6	17	9	
	105,110	102,488	114,055	89,521	108,139	107,941	103,578	
60 - 64	48	2	11	9	6	12	8	
	102,909	114,058	109,975	100,470	102,289	91,357	110,940	
65 - 69	13		4	6	2	·	1	
	119,725		114,458	140,842	90,033		73,475	
70 & over	1			1				
	88,388			88,388				
Total	1,439	399	332	361	109	186	52	
20441	\$100,590	\$88,249	\$100,330	\$102,667	\$111,876	\$112,135	\$117,575	

**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									
	\$70,129	\$70,129									
25 - 29	2	2									
	68,342	68,342									
30 - 34											
35 - 39											
40 - 44	1	1									
	67,260	67,260									
45 - 49											
50 - 54											
55 - 59											
60 - 64											
65 - 69											
70 & over											
Total	4	4									
10111	\$68,519	\$68,519									

**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											
25 - 29	1	1									
	\$69,747	\$69,747									
30 - 34	2	2									
	64,838	64,838									
35 - 39											
40 - 44											
45 - 49											
50 - 54	1	1									
	67,429	67,429									
55 - 59											
60 - 64											
65 - 69											
70 & over											
Total	4	4									
Total	\$66,713	\$66,713									

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

EXHIBIT C
Reconciliation of Member Data – December 31, 2009 to December 31, 2010

	Active Members	Vested Terminated Members	Pensioners	Disableds	Beneficiaries	Total
Number as of December 31, 2009	10,927	1,816	5,478	790	1,065	20,076
New members	523	0	0	0	64	587
Terminations – with vested rights	-103	103	0	0	0	0
Contributions refunds	-147	-45	0	0	0	-192
Retirements	-339	-66	405	0	0	0
New disabilities	-15	-1	-7	23	0	0
Return to work	54	-54	0	0	0	0
Died with or without beneficiary	-20	-10	-177	-20	-64	-291
Data adjustments	-1	42*	3	1	-3	42
Number as of December 31, 2010	10,879	1,785	5,702	794	1,062	20,222

<sup>\*</sup> Out of the 42 data adjustments, 9 were for members who were hired and terminated employment during 2010.

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 D	ecember 31,		
	20	10	2009		
Contribution income:					
Employer contributions	\$147,543,301		\$132,198,602		
Employee contributions	77,604,809		77,270,662		
Contribution income		\$225,148,110		\$209,469,264	
Investment income:					
Interest, dividends and other income	\$131,109,988		\$136,294,103		
Adjustment toward market value	28,605,803		106,638,133		
Less investment and administrative fees	<u>-37,624,699</u>		<u>-34,756,660</u>		
Net investment income		\$122,091,092		\$208,175,576	
Total income available for benefits		\$347,239,202		\$417,644,840	
Less benefit payments:					
Service retirement	-\$271,495,585		-\$250,300,779		
Death payments	-3,223,041		-2,812,441		
Supplemental cost of living	-2,984,499		-3,534,754		
Members refunds	-5,644,811		-7,718,450		
Health insurance subsidies	<u>-29,802,126</u>		<u>-27,839,421</u>		
Benefit payments		-\$313,150,062		-\$292,205,845	
Change in reserve for future benefits		\$34,089,140		\$125,438,995	

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

**EXHIBIT E**Summary Statement of Assets

	Year Ended December 31,				
ASSETS	2010		2009		
Cash		\$1,117,925		\$1,033,684	
Securities Lending Collateral		523,857,487		587,990,973	
Accounts Receivable:					
Contributions	\$12,764,961		\$11,236,567		
Investment Receivables	21,375,559		21,057,694		
Investments Sold	6,998,268		3,731,069		
Others	<u>302,771</u>		<u>286,968</u>		
Total Accounts Receivable		\$41,441,559		\$36,312,298	
Prepaid Expenses		561,951		556,696	
Investments:					
Short-Term Investments	\$127,347,311		\$143,861,098		
Equities	3,402,648,675		3,071,676,053		
Fixed Income Investments	1,217,472,972		1,106,748,482		
Real Estate	278,602,576		253,090,465		
Foreign Exchange Contracts/Currency Swaps	7,199,312		3,410,654		
Equity Swaps	80,693		37,376		
Capital Assets	4,382,710		3,221,506		
Private Equity and Alternative Investments	189,406,843		79,358,237		
Total Investments at Market Value		\$5,227,141,092		\$4,661,403,871	
Total Assets		\$5,794,120,014		\$5,287,297,522	

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

## **EXHIBIT E (Continued)**

## **Summary Statement of Assets**

	Year Ended December 31,			
LIABILITIES	2010		2009	
Less Accounts Payable:				
Securities Lending & Investments Purchased	-\$551,670,581		-\$597,544,275	
Investment-Related Payables	-4,517,682		-3,541,064	
Futures Contracts & Equity Swaps	-1,178,219		-2,070,767	
Foreign Exchange Contracts/Currency Swaps	-7,208,173		-1,986,505	
Accrued Administration Expense	-2,450,165		-1,843,450	
Members Benefits & Refunds, and Retirement Payroll Deductions Payable	<u>-2,600,313</u>		<u>-3,431,867</u>	
Total Accounts Payable		-\$569,625,133		-\$610,417,928
NET ASSETS				
Net Assets at Market Value		<u>\$5,224,494,880</u>		<u>\$4,676,879,594</u>
Net Assets at Actuarial Value		<u>\$5,487,858,259</u>		\$5,453,769,119
Net Assets at Valuation Value		\$4,776,128,467		\$4,788,999,485

Notes: (1) 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	\$3,189,077	\$1,587,052	\$4,776,128
2. Present value of future contributions by members	570,613	133,825	704,438
3. Present value of future employer contributions for:			
a. entry age normal cost	649,414	131,010	780,424
b. unfunded actuarial accrued liability	1,218,788	167,824	1,386,612
4. Total current and future assets	\$5,627,892	\$2,019,711	\$7,647,603
Liabilities			
5. Present value of benefits already granted	\$2,096,055	\$1,219,408	\$3,315,463
6. Present value of benefits to be granted to present non-retired members	3,531,837	800,303	4,332,140
7. Total liabilities	\$5,627,892	\$2,019,711	\$7,647,603

EXHIBIT G
Summary of Reported Asset Information as of December 31, 2010

	Reserves
Used in Development of Valuation Value of Assets	
Members deposit-basic	\$905,019,161
Members cost-of-living	208,608,454
Employer advance (before transfer from SRBR to employer advance)	452,183,462
Pension reserve-current	1,135,438,365
Pension reserve-prior	3,237,787
Annuity reserve	680,725,824
Cost-of-living reserve	1,378,443,832
Survivor death benefit	7,971,582
SRBR transfer to employer advance	4,500,000
Reserve for interest fluctuations (contingency reserve), if negative	0
Subtotal	\$4,776,128,467
Not Used in Development of Valuation Value of Assets	
401(h) account	\$4,888,016
Death benefit-burial	6,057,432
Supplemental retirees benefit reserve (before transfer from SRBR to employer advance)	624,166,664
Reserve for interest fluctuations (contingency reserve), if positive	81,117,680
Market stabilization reserve	-263,363,379
SRBR transfer to employer advance	-4,500,000
Subtotal	\$448,366,413
Total	\$5,224,494,880
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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, 2010

		(Dollar Amounts in Thousands)
1.	Unfunded actuarial accrued liability at beginning of year	\$1,110,331
2.	Gross Normal Cost at middle of year	169,969
3.	Actual employer and member contributions	-225,148
4.	Interest (whole year on $(1)$ plus half year on $(2) + (3)$ )	<u>85,537</u>
5.	Expected unfunded actuarial accrued liability at end of year	\$1,140,689
6.	Actuarial (gain)/loss due to all changes*:	
	a. Loss from investments as recognized on December 31, 2010	\$339,297
	b. Gain from lower than expected salary increases for actives	-80,420
	c. Gain from lower than expected COLA increases for retirees and beneficiaries	-7,021
	d. Other experience (gain)/loss	<u>-5,933</u>
	e. Subtotal	\$245,923
7.	Actual unfunded actuarial accrued liability at end of year (5) + (6e)	\$1,386,612

<sup>\*</sup> The "net gain from other experience" of \$93,374,000 from Chart 9 is equal to the sum of items 6b through 6d.

#### **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 both 2010 and 2011. 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
2005	\$101	\$101	100.0%
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%

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)
12/31/2005	\$3,781,843	\$4,548,213	\$766,370	83.2%	\$709,783	108.0%
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(4)	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

<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).

## **EXHIBIT III**

## **Supplementary Information Required by GASB**

Valuation date	December 31, 2010	
Actuarial cost method	Entry Age Normal Cost Method	
Amortization method	Level percent of payroll for total unfunded liability	
Remaining amortization period	22 years (declining) for all UAAL	
Asset valuation method	The Actuarial Value of Assets is determined by phasing in any difference between actu expected 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 reser	
Actuarial assumptions:		
Investment rate of return	7.90%	
Inflation rate	3.50%	
Real across-the-board salary increase	0.50%	
Projected salary increases*	General: 4.70% to 8.00% and Safety: 5.30% to 9.10%	
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	7,558	
Terminated members entitled to, but not yet receiving benefits	1,785	
Active members	<u>10,879</u>	
Total	20,222	

<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.

#### **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 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.

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## **Termination Rates Before Retirement:**

Rate (%)
Mortality

	General		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>

V	<del>-</del>	
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)(2)

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>30%</sup> 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.

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	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.

#### 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.

**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:** 

75% of male members; 55% of female members.

Age of Spouse:

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

**Net Investment Return:** 

7.90%, net of administration and investment expenses (approximately 1% of assets)

**Employee Contribution** 

**Crediting Rate:** 

7.90%, 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 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%

**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 in 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:

	Service Retirement	<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%

**Changes in Actuarial Assumptions:** There were no changes in assumptions from the December 31, 2009 valuation.

## **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 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.	
All General and Safety members hired on or before June 30, 1983.	
All General and Safety members hired after June 30, 1983.	
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.	
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.	
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.	
Highest consecutive twelve months of compensation earnable (§31462.1) (FAS1).	
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 Eligibility	:	
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	<i>l</i> )	
(§31664)	50	(2.00% xFAS3xYrs)
	55 or later	(2.62%xFAS3xYrs)
Safety Tier 2D (Non-Integrated	d)	
(§31664.2)	50	(2.29% xFAS3xYrs)
	55 or later	(3.00%xFAS3xYrs)
ximum Benefit:	100% of Highest Average Co	ompensation (§31676.1, §31676.12, §31676.18, §31664,

## **Ordinary Disability:**

General Tier 1, Tier 2 and Tier 3

Eligibility

Five years of service (§31720).

§31664.1, and §31664.2).

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:** 

<u>All Members</u>

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 22-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 October 17, 2010, all new members hired in the Sheriff's Department (excluding Probation Officers) can elect to enter either Safety Tier 2C (2% @ 50 formula) or Safety Tier 2D (3% @ 55 formula).

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

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

Appendix A

Member Contribution Rates

Comparison of Total Member Rate<sup>(1)</sup> from December 31, 2010 (New) and December 31, 2009 (Current) Valuations

	Genera	l Tier 1			Genera	1 Tier 2	
Entry Age	Current	New	Change	Entry Age	Current	New	Change
25	9.89%	9.90%	0.01%	25	6.71%	6.72%	0.01%
35	10.81%	10.81%	0.00%	35	7.33%	7.34%	0.01%
45	12.18%	12.18%	0.00%	45	8.26%	8.27%	0.01%
	Genera	l Tier 3					
Entry Age	Current	New	Change				
25	11.57%	11.55%	-0.02%				
35	12.54%	12.52%	-0.02%				
45	14.00%	13.98%	-0.02%				
	Safety	Tier 1			Safety	Tier 2	
Entry Age	Current	New	Change	Entry Age	Current	New	Change
25	17.93%	17.92%	-0.01%	25	14.58%	14.60%	0.02%
30	18.34%	18.32%	-0.02%	30	14.90%	14.91%	0.01%
35	19.03%	19.01%	-0.02%	35	15.44%	15.46%	0.02%
	Safety '	Tier 2C			Safety '	Tier 2D	
Entry Age	Current	New	Change	Entry Age	Current	New	Change
25	11.17%	11.19%	0.02%	25	16.47%	16.51%	0.04%
30	11.47%	11.50%	0.03%	30	16.78%	16.83%	0.05%

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

Breakdown of member rate between basic and COLA calculated in the December 31, 2010 and December 31, 2009 valuations:

			Dece	ember 31, 201	0 Actuaria	al Valuation			December 31, 2009 Actuarial Valuation (1)							
	В	ASIC	C	OLA		SHARING RIBUTIONS	TOTAL		BASIC		COLA		COST SHARING CONTRIBUTIONS		TOTAL	
	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*	Rate	Estimated Annual Amount*
General Tier 1 Members	7.15%	\$4,514	2.64%	\$1,667			9.79%	\$6,181	7.15%	\$4,514	2.63%	\$1,661			9.78%	\$6,175
General Tier 2 Members	5.95%	40,511	1.34%	9,124			7.29%	49,635	5.95%	40,511	1.33%	9,056			7.28%	49,567
General Tier 3 Members	9.33%	312	3.41%	113			12.74%	425	9.33%	312	3.43%	114			12.76%	426
Safety Tier 1 Members	6.74%	385	3.59%	206	3.00%	\$171	13.33%	762	6.74%	385	3.61%	207	3.00%	\$171	13.35%	763
Safety Tier 2 Members	8.62%	12,477	2.79%	4,039	3.00%	4,342	14.41%	20,858	8.62%	12,477	2.78%	4,025	3.00%	4,342	14.40%	20,844
Safety Tier 2C Members	9.01%	25	2.50%	7	0.00%	0	11.51%	32	9.01%	25	2.47%	6	0.00%	0	11.48%	31
Safety Tier 2D Members	9.44%	25	2.97%	8	5.00%	13	17.41%	46	9.44%	25	2.92%	8	5.00%	13	17.36%	46
All Member Categories Combined	6.48%	\$58,249	1.70%	\$15,164	0.50%	\$4,526	8.68%	\$77,939	6.48%	\$58,249	1.69%	\$15,077	0.50%	\$4,526	8.67%	\$77,852

<sup>\*</sup> Amounts are in thousands and are based on December 31, 2010 annual payroll (also in thousands):

	<b>County Only</b>	ACMC, Court & First 5	Other Districts	<u>Total</u>
General Tier 1	\$43,058	\$14,187	\$5,889	\$63,134
General Tier 2	448,069	232,794		680,863
General Tier 3			3,339	3,339
Safety Tier 1	5,716			5,716
Safety Tier 2	144,749			144,749
Safety Tier 2C	274			274
Safety Tier 2D	267			267
Total	\$642,133	\$246,981	\$9,228	\$898,342

<sup>(1)</sup> These rates have been re-calculated by applying the individual entry age based member rates determined in December 31, 2009 valuation to the Association membership as of December 31, 2010.



Appendix A

Member Contribution Rates (Continued)

General Tier 1 Members' Contribution Rates Based on the December 31, 2010 Actuarial Valuation as a percentage of payroll

	Basi	c Only	COLA	Only	Total		
Entry Age	<u>First \$161</u>	Over \$161*	<u>First \$161</u>	Over \$161*	<u>First \$161</u>	Over \$161*	
15	4.57%	6.86%	1.69%	2.53%	6.26%	9.39%	
16	4.57%	6.86%	1.69%	2.53%	6.26%	9.39%	
17	4.61%	6.91%	1.70%	2.55%	6.31%	9.46%	
18	4.64%	6.96%	1.71%	2.56%	6.35%	9.52%	
19	4.67%	7.00%	1.72%	2.58%	6.39%	9.58%	
20	4.69%	7.04%	1.73%	2.59%	6.42%	9.63%	
21	4.71%	7.07%	1.74%	2.61%	6.45%	9.68%	
22	4.73%	7.10%	1.75%	2.62%	6.48%	9.72%	
23	4.76%	7.14%	1.75%	2.63%	6.51%	9.77%	
24	4.79%	7.18%	1.77%	2.65%	6.56%	9.83%	
25	4.82%	7.23%	1.78%	2.67%	6.60%	9.90%	
26	4.85%	7.28%	1.79%	2.68%	6.64%	9.96%	
27	4.89%	7.33%	1.80%	2.70%	6.69%	10.03%	
28	4.93%	7.39%	1.82%	2.73%	6.75%	10.12%	
29	4.97%	7.45%	1.83%	2.75%	6.80%	10.20%	
30	5.01%	7.52%	1.85%	2.77%	6.86%	10.29%	
31	5.06%	7.59%	1.87%	2.80%	6.93%	10.39%	
32	5.11%	7.66%	1.89%	2.83%	7.00%	10.49%	
33	5.16%	7.74%	1.90%	2.85%	7.06%	10.59%	
34	5.21%	7.82%	1.92%	2.88%	7.13%	10.70%	
35	5.27%	7.90%	1.94%	2.91%	7.21%	10.81%	
36	5.33%	7.99%	1.97%	2.95%	7.30%	10.94%	
37	5.39%	8.08%	1.99%	2.98%	7.38%	11.06%	
38	5.45%	8.17%	2.01%	3.01%	7.46%	11.18%	
39	5.51%	8.27%	2.03%	3.05%	7.54%	11.32%	

Appendix A

Member Contribution Rates (Continued)

	Basi	c Only	COLA	Only	Т	otal
Entry Age	<u>First \$161</u>	Over \$161*	<u>First \$161</u>	Over \$161*	<u>First \$161</u>	Over \$161 <sup>3</sup>
40	5.58%	8.37%	2.05%	3.08%	7.63%	11.45%
41	5.65%	8.47%	2.08%	3.12%	7.73%	11.59%
42	5.72%	8.57%	2.11%	3.16%	7.83%	11.73%
43	5.79%	8.68%	2.13%	3.20%	7.92%	11.88%
44	5.86%	8.79%	2.16%	3.24%	8.02%	12.03%
45	5.93%	8.90%	2.19%	3.28%	8.12%	12.18%
46	6.01%	9.02%	2.22%	3.33%	8.23%	12.35%
47	6.09%	9.14%	2.25%	3.37%	8.34%	12.51%
48	6.17%	9.26%	2.27%	3.41%	8.44%	12.67%
49	6.25%	9.38%	2.31%	3.46%	8.56%	12.84%
50	6.34%	9.51%	2.34%	3.51%	8.68%	13.02%
51	6.42%	9.63%	2.37%	3.55%	8.79%	13.18%
52	6.51%	9.76%	2.40%	3.60%	8.91%	13.36%
53	6.59%	9.89%	2.43%	3.65%	9.02%	13.54%
54	6.67%	10.01%	2.46%	3.69%	9.13%	13.70%
55	6.75%	10.12%	2.49%	3.73%	9.24%	13.85%
56	6.82%	10.23%	2.51%	3.77%	9.33%	14.00%
57	6.87%	10.31%	2.53%	3.80%	9.40%	14.11%
58	6.88%	10.33%	2.54%	3.81%	9.42%	14.14%
59 & Over	6.72%	10.08%	2.48%	3.72%	9.20%	13.80%

<sup>\*</sup> Use these rates for Non-Integrated Members

Interest: 7.90% per annum

COLA: 3.00%

Mortality: RP-2000 Combined Healthy Mortality Table set back one year weighted 30% male and 70% female

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

COLA Loading Factor: 36.87% Terminal Pay: 8.0%

Appendix A
Member Contribution Rates (Continued)

General Tier 2 Members' Contribution Rates Based on the December 31, 2010 Actuarial Valuation as a percentage of payroll

	Basi	ic 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	3.47%	5.20%	0.78%	1.17%	4.25%	6.37%	
16	3.47%	5.20%	0.78%	1.17%	4.25%	6.37%	
17	3.49%	5.24%	0.79%	1.18%	4.28%	6.42%	
18	3.52%	5.28%	0.79%	1.18%	4.31%	6.46%	
19	3.54%	5.31%	0.79%	1.19%	4.33%	6.50%	
20	3.56%	5.34%	0.80%	1.20%	4.36%	6.54%	
21	3.57%	5.36%	0.80%	1.20%	4.37%	6.56%	
22	3.59%	5.39%	0.81%	1.21%	4.40%	6.60%	
23	3.61%	5.42%	0.81%	1.22%	4.42%	6.64%	
24	3.63%	5.45%	0.81%	1.22%	4.44%	6.67%	
25	3.66%	5.49%	0.82%	1.23%	4.48%	6.72%	
26	3.68%	5.52%	0.83%	1.24%	4.51%	6.76%	
27	3.71%	5.56%	0.83%	1.25%	4.54%	6.81%	
28	3.74%	5.61%	0.84%	1.26%	4.58%	6.87%	
29	3.77%	5.66%	0.85%	1.27%	4.62%	6.93%	
30	3.80%	5.71%	0.85%	1.28%	4.65%	6.99%	
31	3.84%	5.76%	0.86%	1.29%	4.70%	7.05%	
32	3.88%	5.81%	0.87%	1.30%	4.75%	7.11%	
33	3.91%	5.87%	0.88%	1.32%	4.79%	7.19%	
34	3.95%	5.93%	0.89%	1.33%	4.84%	7.26%	
35	4.00%	5.99%	0.90%	1.35%	4.90%	7.34%	
36	4.04%	6.06%	0.91%	1.36%	4.95%	7.42%	
37	4.09%	6.13%	0.92%	1.38%	5.01%	7.51%	
38	4.13%	6.20%	0.93%	1.39%	5.06%	7.59%	
39	4.18%	6.27%	0.94%	1.41%	5.12%	7.68%	

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	4.23%	6.35%	0.95%	1.42%	5.18%	7.77%	
41	4.28%	6.42%	0.96%	1.44%	5.24%	7.86%	
42	4.33%	6.50%	0.97%	1.46%	5.30%	7.96%	
43	4.39%	6.58%	0.99%	1.48%	5.38%	8.06%	
44	4.44%	6.67%	1.00%	1.50%	5.44%	8.17%	
45	4.50%	6.75%	1.01%	1.52%	5.51%	8.27%	
46	4.56%	6.84%	1.02%	1.53%	5.58%	8.37%	
47	4.62%	6.93%	1.03%	1.55%	5.65%	8.48%	
48	4.68%	7.02%	1.05%	1.58%	5.73%	8.60%	
49	4.74%	7.11%	1.07%	1.60%	5.81%	8.71%	
50	4.80%	7.21%	1.08%	1.62%	5.88%	8.83%	
51	4.87%	7.30%	1.09%	1.64%	5.96%	8.94%	
52	4.93%	7.40%	1.11%	1.66%	6.04%	9.06%	
53	4.99%	7.49%	1.12%	1.68%	6.11%	9.17%	
54	5.05%	7.58%	1.13%	1.70%	6.18%	9.28%	
55	5.11%	7.67%	1.15%	1.72%	6.26%	9.39%	
56	5.16%	7.74%	1.16%	1.74%	6.32%	9.48%	
57	5.19%	7.79%	1.17%	1.75%	6.36%	9.54%	
58	5.39%	8.09%	1.21%	1.82%	6.60%	9.91%	
59 & Over	5.60%	8.40%	1.26%	1.89%	6.86%	10.29%	

<sup>\*</sup> Use these rates for Non-Integrated Members

Interest: 7.90% per annum

COLA: 2.00%

Mortality: RP-2000 Combined Healthy Mortality Table set back one year weighted 30% male and 70% female

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

COLA Loading Factor: 22.44% Terminal Pay: 3.0%

Appendix A

Member Contribution Rates (Continued)

General Tier 3 Members' Contribution Rates Based on the December 31, 2010 Actuarial Valuation as a percentage of payroll

	Basi	c Only	COLA Only Total			
Entry Age	<u>First \$161</u>	Over \$161*	<u>First \$161</u>	Over \$161*	<u>First \$161</u>	Over \$161*
15	5.38%	8.07%	1.97%	2.95%	7.35%	11.02%
16	5.38%	8.07%	1.97%	2.95%	7.35%	11.02%
17	5.42%	8.13%	1.98%	2.97%	7.40%	11.10%
18	5.46%	8.18%	1.99%	2.99%	7.45%	11.17%
19	5.49%	8.23%	2.01%	3.01%	7.50%	11.24%
20	5.51%	8.27%	2.01%	3.02%	7.52%	11.29%
21	5.53%	8.30%	2.02%	3.03%	7.55%	11.33%
22	5.55%	8.33%	2.03%	3.05%	7.58%	11.38%
23	5.58%	8.37%	2.04%	3.06%	7.62%	11.43%
24	5.61%	8.41%	2.05%	3.08%	7.66%	11.49%
25	5.64%	8.46%	2.06%	3.09%	7.70%	11.55%
26	5.67%	8.51%	2.07%	3.11%	7.74%	11.62%
27	5.71%	8.57%	2.09%	3.13%	7.80%	11.70%
28	5.75%	8.63%	2.10%	3.15%	7.85%	11.78%
29	5.80%	8.69%	2.12%	3.18%	7.92%	11.87%
30	5.84%	8.76%	2.13%	3.20%	7.97%	11.96%
31	5.89%	8.84%	2.15%	3.23%	8.04%	12.07%
32	5.94%	8.92%	2.17%	3.26%	8.11%	12.18%
33	6.00%	9.00%	2.19%	3.29%	8.19%	12.29%
34	6.06%	9.08%	2.21%	3.32%	8.27%	12.40%
35	6.11%	9.17%	2.23%	3.35%	8.34%	12.52%
36	6.18%	9.27%	2.26%	3.39%	8.44%	12.66%
37	6.24%	9.36%	2.28%	3.42%	8.52%	12.78%
38	6.31%	9.46%	2.31%	3.46%	8.62%	12.92%
39	6.38%	9.57%	2.33%	3.50%	8.71%	13.07%

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	6.45%	9.67%	2.36%	3.54%	8.81%	13.21%	
41	6.52%	9.78%	2.39%	3.58%	8.91%	13.36%	
42	6.59%	9.89%	2.41%	3.62%	9.00%	13.51%	
43	6.67%	10.00%	2.44%	3.66%	9.11%	13.66%	
44	6.75%	10.12%	2.47%	3.70%	9.22%	13.82%	
45	6.83%	10.24%	2.49%	3.74%	9.32%	13.98%	
46	6.91%	10.36%	2.53%	3.79%	9.44%	14.15%	
47	6.99%	10.48%	2.55%	3.83%	9.54%	14.31%	
48	7.07%	10.60%	2.59%	3.88%	9.66%	14.48%	
49	7.15%	10.73%	2.61%	3.92%	9.76%	14.65%	
50	7.23%	10.84%	2.64%	3.96%	9.87%	14.80%	
51	7.30%	10.95%	2.67%	4.00%	9.97%	14.95%	
52	7.35%	11.03%	2.69%	4.03%	10.04%	15.06%	
53	7.36%	11.04%	2.69%	4.03%	10.05%	15.07%	
54 & over	7.18%	10.77%	2.63%	3.94%	9.81%	14.71%	

<sup>\*</sup> Use these rates for Non-Integrated Members

Interest: 7.90% per annum

COLA: 3.00%

Mortality: RP-2000 Combined Healthy Mortality Table set back one year weighted 30% male and 70% female

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

COLA Loading Factor: 36.56% Terminal Pay: 8.0%

Appendix A
Member Contribution Rates (Continued)

Safety Tier 1 Members' Contribution Rates Based on the December 31, 2010 Actuarial Valuation as a percentage of payroll

	Basi	c Only	Cost Sharing	Contributions	COI	LA Only	Total		
Entry Age	<u>First \$161</u>	Over \$161*	First \$161	Over \$161*	First \$161	Over \$161*	<u>First \$161</u>	Over \$161*	
15	6.38%	9.58%	3.00%	3.00%	3.41%	5.11%	12.79%	17.69%	
16	6.38%	9.58%	3.00%	3.00%	3.41%	5.11%	12.79%	17.69%	
17	6.41%	9.62%	3.00%	3.00%	3.42%	5.13%	12.83%	17.75%	
18	6.43%	9.64%	3.00%	3.00%	3.43%	5.14%	12.86%	17.78%	
19	6.44%	9.66%	3.00%	3.00%	3.43%	5.15%	12.87%	17.81%	
20	6.45%	9.67%	3.00%	3.00%	3.44%	5.16%	12.89%	17.83%	
21	6.44%	9.67%	3.00%	3.00%	3.43%	5.15%	12.87%	17.82%	
22	6.45%	9.67%	3.00%	3.00%	3.44%	5.16%	12.89%	17.83%	
23	6.45%	9.68%	3.00%	3.00%	3.44%	5.16%	12.89%	17.84%	
24	6.47%	9.70%	3.00%	3.00%	3.45%	5.17%	12.92%	17.87%	
25	6.48%	9.73%	3.00%	3.00%	3.46%	5.19%	12.94%	17.92%	
26	6.51%	9.76%	3.00%	3.00%	3.47%	5.20%	12.98%	17.96%	
27	6.54%	9.81%	3.00%	3.00%	3.49%	5.23%	13.03%	18.04%	
28	6.57%	9.86%	3.00%	3.00%	3.51%	5.26%	13.08%	18.12%	
29	6.61%	9.92%	3.00%	3.00%	3.53%	5.29%	13.14%	18.21%	
30	6.66%	9.99%	3.00%	3.00%	3.55%	5.33%	13.21%	18.32%	
31	6.71%	10.07%	3.00%	3.00%	3.58%	5.37%	13.29%	18.44%	
32	6.77%	10.15%	3.00%	3.00%	3.61%	5.41%	13.38%	18.56%	
33	6.83%	10.24%	3.00%	3.00%	3.64%	5.46%	13.47%	18.70%	
34	6.89%	10.34%	3.00%	3.00%	3.67%	5.51%	13.56%	18.85%	
35	6.96%	10.44%	3.00%	3.00%	3.71%	5.57%	13.67%	19.01%	
36	7.03%	10.55%	3.00%	3.00%	3.75%	5.63%	13.78%	19.18%	
37	7.11%	10.66%	3.00%	3.00%	3.79%	5.69%	13.90%	19.35%	
38	7.19%	10.78%	3.00%	3.00%	3.83%	5.75%	14.02%	19.53%	
39	7.26%	10.90%	3.00%	3.00%	3.87%	5.81%	14.13%	19.71%	

Appendix A
Member Contribution Rates (Continued)

	Basic Only		<b>Cost Sharing Contributions</b>		COLA Only		Total	
Entry Age	First \$161	Over \$161*	<u>First \$161</u>	Over \$161*	First \$161	Over \$161*	First \$161	Over \$161*
40	7.34%	11.02%	3.00%	3.00%	3.91%	5.87%	14.25%	19.89%
41	7.42%	11.13%	3.00%	3.00%	3.96%	5.94%	14.38%	20.07%
42	7.50%	11.25%	3.00%	3.00%	4.00%	6.00%	14.50%	20.25%
43	7.58%	11.36%	3.00%	3.00%	4.04%	6.06%	14.62%	20.42%
44	7.65%	11.47%	3.00%	3.00%	4.07%	6.11%	14.72%	20.58%
45	7.71%	11.57%	3.00%	3.00%	4.11%	6.17%	14.82%	20.74%
46	7.76%	11.65%	3.00%	3.00%	4.14%	6.21%	14.90%	20.86%
47	7.79%	11.69%	3.00%	3.00%	4.15%	6.23%	14.94%	20.92%
48	7.77%	11.65%	3.00%	3.00%	4.14%	6.21%	14.91%	20.86%
49 & Over	7.51%	11.27%	3.00%	3.00%	4.01%	6.01%	14.52%	20.28%

<sup>\*</sup> Use these rates for Non-Integrated Members

Interest: 7.90% per annum

COLA: 3.00%

Mortality: RP-2000 Combined Healthy Mortality Table set back two years weighted 75% male and 25% female

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

COLA Loading Factor: 53.31% Terminal Pay: 9.5%

Appendix A
Member Contribution Rates (Continued)

Safety Tier 2 Members' Contribution Rates Based on the December 31, 2010 Actuarial Valuation as percentage of payroll

	Basic Only		Cost Sharing Contributions		COLA Only		Total	
Entry Age	<u>First \$161</u>	Over \$161*	First \$161	Over \$161*	<u>First \$161</u>	Over \$161*	First \$161	Over \$161*
15	5.75%	8.63%	3.00%	3.00%	1.87%	2.80%	10.62%	14.43%
16	5.75%	8.63%	3.00%	3.00%	1.87%	2.80%	10.62%	14.43%
17	5.78%	8.67%	3.00%	3.00%	1.87%	2.81%	10.65%	14.48%
18	5.80%	8.69%	3.00%	3.00%	1.87%	2.81%	10.67%	14.50%
19	5.81%	8.71%	3.00%	3.00%	1.88%	2.82%	10.69%	14.53%
20	5.81%	8.71%	3.00%	3.00%	1.88%	2.82%	10.69%	14.53%
21	5.81%	8.71%	3.00%	3.00%	1.88%	2.82%	10.69%	14.53%
22	5.81%	8.71%	3.00%	3.00%	1.88%	2.82%	10.69%	14.53%
23	5.82%	8.72%	3.00%	3.00%	1.88%	2.82%	10.70%	14.54%
24	5.83%	8.74%	3.00%	3.00%	1.89%	2.83%	10.72%	14.57%
25	5.84%	8.76%	3.00%	3.00%	1.89%	2.84%	10.73%	14.60%
26	5.86%	8.80%	3.00%	3.00%	1.90%	2.85%	10.76%	14.65%
27	5.89%	8.84%	3.00%	3.00%	1.91%	2.86%	10.80%	14.70%
28	5.92%	8.88%	3.00%	3.00%	1.92%	2.88%	10.84%	14.76%
29	5.96%	8.94%	3.00%	3.00%	1.93%	2.89%	10.89%	14.83%
30	6.00%	9.00%	3.00%	3.00%	1.94%	2.91%	10.94%	14.91%
31	6.05%	9.07%	3.00%	3.00%	1.96%	2.94%	11.01%	15.01%
32	6.10%	9.14%	3.00%	3.00%	1.97%	2.96%	11.07%	15.10%
33	6.15%	9.23%	3.00%	3.00%	1.99%	2.99%	11.14%	15.22%
34	6.21%	9.31%	3.00%	3.00%	2.01%	3.02%	11.22%	15.33%
35	6.27%	9.41%	3.00%	3.00%	2.03%	3.05%	11.30%	15.46%
36	6.33%	9.50%	3.00%	3.00%	2.05%	3.08%	11.38%	15.58%
37	6.40%	9.60%	3.00%	3.00%	2.07%	3.11%	11.47%	15.71%
38	6.47%	9.70%	3.00%	3.00%	2.09%	3.14%	11.56%	15.84%
39	6.54%	9.81%	3.00%	3.00%	2.12%	3.18%	11.66%	15.99%

Appendix A

Member Contribution Rates (Continued)

	Basic	c Only	Cost Sharing Contributions		COLA Only		Total	
Entry Age	First \$161	Over \$161*	<u>First \$161</u>	Over \$161*	<u>First \$161</u>	Over \$161*	First \$161	Over \$161*
40	6.61%	9.91%	3.00%	3.00%	2.14%	3.21%	11.75%	16.12%
41	6.68%	10.01%	3.00%	3.00%	2.16%	3.24%	11.84%	16.25%
42	6.74%	10.12%	3.00%	3.00%	2.19%	3.28%	11.93%	16.40%
43	6.81%	10.21%	3.00%	3.00%	2.21%	3.31%	12.02%	16.52%
44	6.87%	10.30%	3.00%	3.00%	2.23%	3.34%	12.10%	16.64%
45	6.92%	10.38%	3.00%	3.00%	2.24%	3.36%	12.16%	16.74%
46	6.96%	10.44%	3.00%	3.00%	2.25%	3.38%	12.21%	16.82%
47	6.97%	10.45%	3.00%	3.00%	2.25%	3.38%	12.22%	16.83%
48	7.24%	10.85%	3.00%	3.00%	2.34%	3.51%	12.58%	17.36%
49 & Over	7.51%	11.27%	3.00%	3.00%	2.43%	3.65%	12.94%	17.92%

<sup>\*</sup> Use these rates for Non-Integrated Members

Interest: 7.90% per annum

COLA: 2.00%

Mortality: RP-2000 Combined Healthy Mortality Table set back two years weighted 75% male and 25% female

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

COLA Loading Factor: 32.38% Terminal Pay: 4.0%

Appendix A
Member Contribution Rates (Continued)

Safety Tier 2C Members' Contribution Rates Based on the December 31, 2010 Actuarial Valuation as percentage of payroll

	Basic	Basic Only		Only	Total		
Entry Age	First \$161	Over \$161*	First \$161	Over \$161*	First \$161	Over \$161*	
15	5.75%	8.63%	1.59%	2.39%	7.34%	11.02%	
16	5.75%	8.63%	1.59%	2.39%	7.34%	11.02%	
17	5.78%	8.67%	1.60%	2.40%	7.38%	11.07%	
18	5.80%	8.69%	1.61%	2.41%	7.41%	11.10%	
19	5.81%	8.71%	1.61%	2.42%	7.42%	11.13%	
20	5.81%	8.71%	1.61%	2.42%	7.42%	11.13%	
21	5.81%	8.71%	1.61%	2.42%	7.42%	11.13%	
22	5.81%	8.71%	1.61%	2.42%	7.42%	11.13%	
23	5.82%	8.72%	1.61%	2.42%	7.43%	11.14%	
24	5.83%	8.74%	1.61%	2.42%	7.44%	11.16%	
25	5.84%	8.76%	1.62%	2.43%	7.46%	11.19%	
26	5.86%	8.80%	1.63%	2.44%	7.49%	11.24%	
27	5.89%	8.84%	1.63%	2.45%	7.52%	11.29%	
28	5.92%	8.88%	1.64%	2.46%	7.56%	11.34%	
29	5.96%	8.94%	1.65%	2.48%	7.61%	11.42%	
30	6.00%	9.00%	1.67%	2.50%	7.67%	11.50%	
31	6.05%	9.07%	1.68%	2.52%	7.73%	11.59%	
32	6.10%	9.14%	1.69%	2.54%	7.79%	11.68%	
33	6.15%	9.23%	1.71%	2.56%	7.86%	11.79%	
34	6.21%	9.31%	1.72%	2.58%	7.93%	11.89%	
35	6.27%	9.41%	1.74%	2.61%	8.01%	12.02%	
36	6.33%	9.50%	1.76%	2.64%	8.09%	12.14%	
37	6.40%	9.60%	1.77%	2.66%	8.17%	12.26%	
38	6.47%	9.70%	1.79%	2.69%	8.26%	12.39%	
39	6.54%	9.81%	1.81%	2.72%	8.35%	12.53%	

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	6.61%	9.91%	1.83%	2.75%	8.44%	12.66%	
41	6.68%	10.01%	1.85%	2.78%	8.53%	12.79%	
42	6.74%	10.12%	1.87%	2.81%	8.61%	12.93%	
43	6.81%	10.21%	1.89%	2.83%	8.70%	13.04%	
44	6.87%	10.30%	1.91%	2.86%	8.78%	13.16%	
45	6.92%	10.38%	1.92%	2.88%	8.84%	13.26%	
46	6.96%	10.44%	1.93%	2.90%	8.89%	13.34%	
47	6.97%	10.45%	1.93%	2.90%	8.90%	13.35%	
48	7.24%	10.85%	2.01%	3.01%	9.25%	13.86%	
49 & Over	7.51%	11.27%	2.09%	3.13%	9.60%	14.40%	

<sup>\*</sup> Use these rates for Non-Integrated Members

Interest: 7.90% per annum

COLA: 2.00%

Mortality: RP-2000 Combined Healthy Mortality Table set back two years weighted 75% male and 25% female

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

COLA Loading Factor: 27.74% Terminal Pay: 4.0%

Appendix A
Member Contribution Rates (Continued)

Safety Tier 2D Members' Contribution Rates Based on the December 31, 2010 Actuarial Valuation as percentage of payroll

	Basic Only		Cost Sharing Contributions**		COLA	Only	Total		
Entry Age	<u>First \$161</u>	Over \$161*	First \$161	Over \$161*	First \$161	Over \$161*	<u>First \$161</u>	Over \$161*	
15	5.75%	8.63%	5.00%	5.00%	1.81%	2.71%	12.56%	16.34%	
16	5.75%	8.63%	5.00%	5.00%	1.81%	2.71%	12.56%	16.34%	
17	5.78%	8.67%	5.00%	5.00%	1.81%	2.72%	12.59%	16.39%	
18	5.80%	8.69%	5.00%	5.00%	1.82%	2.73%	12.62%	16.42%	
19	5.81%	8.71%	5.00%	5.00%	1.83%	2.74%	12.64%	16.45%	
20	5.81%	8.71%	5.00%	5.00%	1.83%	2.74%	12.64%	16.45%	
21	5.81%	8.71%	5.00%	5.00%	1.83%	2.74%	12.64%	16.45%	
22	5.81%	8.71%	5.00%	5.00%	1.83%	2.74%	12.64%	16.45%	
23	5.82%	8.72%	5.00%	5.00%	1.83%	2.74%	12.65%	16.46%	
24	5.83%	8.74%	5.00%	5.00%	1.83%	2.75%	12.66%	16.49%	
25	5.84%	8.76%	5.00%	5.00%	1.83%	2.75%	12.67%	16.51%	
26	5.86%	8.80%	5.00%	5.00%	1.84%	2.76%	12.70%	16.56%	
27	5.89%	8.84%	5.00%	5.00%	1.85%	2.78%	12.74%	16.62%	
28	5.92%	8.88%	5.00%	5.00%	1.86%	2.79%	12.78%	16.67%	
29	5.96%	8.94%	5.00%	5.00%	1.87%	2.81%	12.83%	16.75%	
30	6.00%	9.00%	5.00%	5.00%	1.89%	2.83%	12.89%	16.83%	
31	6.05%	9.07%	5.00%	5.00%	1.90%	2.85%	12.95%	16.92%	
32	6.10%	9.14%	5.00%	5.00%	1.91%	2.87%	13.01%	17.01%	
33	6.15%	9.23%	5.00%	5.00%	1.93%	2.90%	13.08%	17.13%	
34	6.21%	9.31%	5.00%	5.00%	1.95%	2.93%	13.16%	17.24%	
35	6.27%	9.41%	5.00%	5.00%	1.97%	2.96%	13.24%	17.37%	
36	6.33%	9.50%	5.00%	5.00%	1.99%	2.99%	13.32%	17.49%	
37	6.40%	9.60%	5.00%	5.00%	2.01%	3.02%	13.41%	17.62%	
38	6.47%	9.70%	5.00%	5.00%	2.03%	3.05%	13.50%	17.75%	
39	6.54%	9.81%	5.00%	5.00%	2.05%	3.08%	13.59%	17.89%	

Appendix A

Member Contribution Rates (Continued)

	Basic	Basic Only		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	6.61%	9.91%	5.00%	5.00%	2.08%	3.12%	13.69%	18.03%	
41	6.68%	10.01%	5.00%	5.00%	2.10%	3.15%	13.78%	18.16%	
42	6.74%	10.12%	5.00%	5.00%	2.12%	3.18%	13.86%	18.30%	
43	6.81%	10.21%	5.00%	5.00%	2.14%	3.21%	13.95%	18.42%	
44	6.87%	10.30%	5.00%	5.00%	2.16%	3.24%	14.03%	18.54%	
45	6.92%	10.38%	5.00%	5.00%	2.17%	3.26%	14.09%	18.64%	
46	6.96%	10.44%	5.00%	5.00%	2.19%	3.28%	14.15%	18.72%	
47	6.97%	10.45%	5.00%	5.00%	2.19%	3.29%	14.16%	18.74%	
48	7.24%	10.85%	5.00%	5.00%	2.27%	3.41%	14.51%	19.26%	
49 & Over	7.51%	11.27%	5.00%	5.00%	2.36%	3.54%	14.87%	19.81%	

<sup>\*</sup> Use these rates for Non-Integrated Members

Interest: 7.90% per annum

COLA: 2.00%

Mortality: RP-2000 Combined Healthy Mortality Table set back two years weighted 75% male and 25% female

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

COLA Loading Factor: 31.43% Terminal Pay: 4.0%

<sup>\*\*</sup> The 5% cost sharing contribution is reduced to 3% for members with at least 5 years of service.

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, 2010 Actuarial Valuation

Dollar Contribution<sup>(1)</sup> Based on December 31, 2010 Valuation Dollar Contribution<sup>(1)</sup> Based on December 31, 2009 Valuation General Safety General Safety Tier 2D Tier 3 Tier 2C Employer Name (Code) Tier 1 Tier 2 Tier 3 Tier 1 Tier 2 Tier 2C **Total** Tier 1 Tier 2 Tier 1 Tier 2 Tier 2D **Total** \$7,584 \$143,942 \$2,786 \$99 \$92 Alameda County (101) \$73,259 \$3,068 \$59,810 \$113 \$108 \$6,795 \$64,836 \$53,760 \$128,368 Medical Center (106) 1,430 29,632 31,062 1,280 26,187 27,467 Superior Court (632) 1,103 8,192 9,295 987 7,240 8,227 First 5 (714) 821 821 725 725 Housing Authority (103) 1,121 1,121 1,026 1,026 LARPD (104) 204 \$824 1,028 \$805 991 186 Office of Education (105) 14 14 13 13 \$11,456 \$111.904 \$824 Total \$3,068 \$59,810 \$113 \$108 \$187,283 \$10,287 \$98,988 \$805 \$2,786 \$53,760 \$99 \$92 \$166,817

#### December 31, 2010 Projected Total Compensation (\$000s)

	General								
Employer Name (Code)	Tier 1	Tier 2	Tier 3	Tier 1	Tier 2	Tier 2C	Tier 2D	<u>Total</u>	
Alameda County (101)	\$43,058	\$448,069		\$5,716	\$144,749	\$274	\$267	\$642,133	
Medical Center (106)	8,009	178,503						186,512	
Superior Court (632)	6,178	49,348						55,526	
First 5 (714)		4,943						4,943	
Housing Authority (103)	4,932							4,932	
LARPD (104)	895		\$3,339					4,234	
Office of Education (105)	62							62	_
Total	\$63,134	\$680,863	\$3,339	\$5,716	\$144,749	\$274	\$267	\$898,342	

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<sup>(1)</sup> Contribution calculated using projected compensation provided below for the December 31, 2010 valuation: