

**Contra Costa County Employees'
Retirement Association**

*Actuarial Valuation and Review
as of December 31, 2011*

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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

June 29, 2012

Board of Retirement
Contra Costa County Employees' Retirement Association
1335 Willow Way, Suite 221
Concord, CA 94520

Dear Board Members:

We are pleased to submit this Actuarial Valuation and Review as of December 31, 2011. The report summarizes the actuarial data used in the valuation, establishes the funding requirements for the fiscal year beginning July 1, 2013 and analyzes the preceding year's experience.

The census information on which our calculations were based was prepared by the CCCERA and the financial information was provided by the Association's staff. That assistance is gratefully acknowledged. The actuarial calculations were completed under the supervision of John Monroe, ASA, MAAA, Enrolled Actuary.

This actuarial valuation has been completed in accordance with generally accepted actuarial principles and practices. To the best of our knowledge, the information supplied in this actuarial valuation is complete and accurate. Further, in our opinion, the assumptions as approved by the Board of Retirement are reasonably related to the experience of and the expectations for the Plan.

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, EA, MAAA, FCA
Senior Vice President and Actuary

John Monroe, EA, ASA, MAAA
Vice President and Associate Actuary

AW/hy

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SECTION 1: Valuation Summary for the Contra Costa County Employees' Retirement Association

PURPOSE AND SCOPE

This report has been prepared by The Segal Company to present a valuation of the Contra Costa County Employees' Retirement Association (CCCERA) as of December 31, 2011. The valuation was performed to determine contribution rates that, in combination with current assets, are sufficient to provide the prescribed benefits. The contribution rate requirements presented in this report are based on:

- The benefit provisions of the Retirement Association, as administered by the Board;
- The characteristics of covered active members, terminated members, and retired members and beneficiaries as of December 31, 2011, provided by the Association's staff;
- The assets of the Plan as of December 31, 2011, provided by the Association's staff;
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

One of the general goals of an actuarial valuation is to establish contributions that fully fund the system'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.

The actuarial valuation required for the Contra Costa County Employees' Retirement Association has been prepared as of December 31, 2011 by The Segal Company. 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 reasonably consistent, both internally and with prior years' information.

SECTION 1: Valuation Summary for the Contra Costa County Employees' Retirement Association

The contribution requirements are determined as a percentage of payroll. The Association's employer rates provide for both normal cost and a contribution to amortize any unfunded or overfunded actuarial accrued liabilities. The remaining balance of the Association's unfunded actuarial accrued liability (UAAL) through December 31, 2007 is being amortized over a decreasing period with 11 years remaining as December 31, 2011. Any change in the UAAL that arises at each valuation after December 31, 2007 is amortized over its own separate declining 18-year period.

We recommend that the rates calculated in this report be adopted by the Board for the fiscal year that extends from July 1, 2013 through June 30, 2014.

SIGNIFICANT ISSUES IN VALUATION YEAR

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

Ref: Pg. 84
Ref: Pg. 73

- The ratio of the valuation value of assets to actuarial accrued liabilities decreased from 80.3% to 78.5%. The Association's UAAL has increased from \$1.312 billion to \$1.489 billion. This increase is primarily due to an investment return on actuarial value (i.e. after smoothing) that fell short of the 7.75% assumed rate. A reconciliation of the Association's UAAL is provided in Section 3, Exhibit I.

Ref: Pg. 50

- The aggregate employer rate calculated in this valuation (before considering any employer subvention of member rates or member subvention of employer rates) has increased from 34.49% of payroll to 37.87% of payroll. This increase is primarily due to the investment loss mentioned above. A complete reconciliation of the Association's aggregate employer rate is provided in Section 2, Subsection D, see Chart 16.

Ref: Pg. 51

- The aggregate member rate calculated in this valuation (before considering any employer subvention of these rates or member subvention of employer rates) has decreased from 11.00% of payroll to 10.98% of payroll. A complete reconciliation of the Association's aggregate member rate is provided in Section 2, Subsection D, see Chart 17.
- The Summary of Key Valuation Results (page v) and the employer and member rate reconciliations (Charts 16 and 17) do not reflect any employer subvention of member rates or member subvention of employer rates. The Summary of Contribution Rates with Employer Subvention (page vii) is an illustration of what the rates would be if all employers (except for Safety Districts) subvented 50% of the member basic rates. The detailed rate tables (Charts 14 and 15) also include the 50% subvention line (except for Safety Districts).

- As in the prior year valuation report, separate employer contribution rates are shown in Charts 14 and 15 for members based on membership dates before and on or after January 1, 2011. However, the average employer contribution rates shown on pages v and vii are based on all members regardless of their membership date.

SECTION 1: Valuation Summary for the Contra Costa County Employees' Retirement Association

Ref: Pg. 5

- As detailed on page 5 of this valuation report, the total unrecognized investment loss as of December 31, 2011 is about \$389 million as compared to \$329 million in the previous valuation. This investment loss will be recognized in the determination of the actuarial value of assets for funding purposes in the next few years. This means that if the Association earns the assumed rate of investment return of 7.75% per year (net of expenses) on a **market value** basis, then the deferred losses would be recognized over the next few years as shown in the footnote in Chart 7.
- The deferred losses of \$389 million represent about 8% of the market value of assets. Unless offset by future investment gains or other favorable experience, the recognition of the \$389 million market losses is expected to have an impact on the Association's future funded ratio and contribution rate requirements. This potential impact may be illustrated as follows:
 - If the deferred losses were recognized immediately in the valuation value of assets, the funded percentage would decrease from 78.5% to 72.9%.
 - If the deferred losses were recognized immediately in the valuation value of assets, the aggregate employer contribution rate would increase from 37.9% to about 42.3% of payroll.
- This is the first valuation that includes actual valuation data for members with membership dates on or after January 1, 2011. These members are subject to the amended policy that determines which pay items are considered compensation for retirement purposes. Cost groups #5, #10 and #12 still do not contain any members with membership dates on or after January 1, 2011. Consistent with the methodology that was applied in the previous valuation for all cost groups, for those three cost groups we have continued to assume that the demographics of members with membership dates on or after January 1, 2011 are the same as the demographics of members with membership dates before January 1, 2011.
- The actuarial valuation report as of December 31, 2011 is based on financial information as of that date. Changes in the 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.
- The last actuarial experience study covered the period from January 1, 2007 through December 31, 2009. We anticipate performing another actuarial experience study during the first half of 2013. As part of this study, recommendations for changes in actuarial assumptions may be made. For each of CCCERA's demographic actuarial assumptions, these recommendations will generally be based on a comparison of actual experience versus that which was expected to occur.

SECTION 1: Valuation Summary for the Contra Costa County Employees' Retirement Association

Impact of Future Experience on Contribution Rates

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

- Differences between actual experience and anticipated experience;
- Changes in actuarial assumptions or methods;
- Changes in statutory provisions; and
- Differences between the contribution rates determined by the valuation and those adopted by the Board.

SECTION 1: Valuation Summary for the Contra Costa County Employees' Retirement Association

Summary of Key Valuation Results

	December 31, 2011		December 31, 2010	
	Total Rate	Estimated Annual Amount	Total Rate	Estimated Annual Amount
Average Employer Contribution Rates⁽¹⁾:				
General				
Cost Group #1 – County and Small Districts (Tier 1)	32.53%	\$9,389,219	29.16%	\$11,044,880
Cost Group #2 – County and Small Districts (Tier 3)	28.78%	130,861,297	26.50%	122,147,769
Cost Group #3 – Central Contra Costa Sanitary District	58.36%	14,435,891	53.91%	13,183,861
Cost Group #4 – Contra Costa Housing Authority	35.26%	1,983,485	33.96%	1,811,604
Cost Group #5 – Contra Costa County Fire Protection District	30.75%	1,080,023	25.71%	1,031,007
Cost Group #6 – Small Districts (Tier 1 Non-Enhanced)	24.88%	189,265	27.37%	198,484
Safety				
Cost Group #7 – County (Tier A)	66.42%	47,810,154	58.87%	46,776,045
Cost Group #8 – Contra Costa and East Fire Protection Districts	59.05%	22,204,573	52.78%	19,605,462
Cost Group #9 – County (Tier C)	59.19%	6,001,376	52.03%	4,073,737
Cost Group #10 – Moraga-Orinda Fire District	52.94%	3,979,298	44.70%	3,529,061
Cost Group #11 – San Ramon Valley Fire District	68.39%	12,968,849	63.55%	12,394,971
Cost Group #12 – Rodeo-Hercules Fire Protection District	72.53%	1,433,817	58.04%	1,310,499
All Employers combined	37.87%	\$252,337,247	34.49%	\$237,107,380
Average Member Contribution Rates⁽¹⁾:				
General				
Cost Group #1 – County and Small Districts (Tier 1)	9.55%	\$2,756,922	9.43%	\$3,572,201
Cost Group #2 – County and Small Districts (Tier 3)	9.75%	44,337,350	9.76%	44,988,288
Cost Group #3 – Central Contra Costa Sanitary District	10.03%	2,481,328	10.04%	2,455,314
Cost Group #4 – Contra Costa Housing Authority	10.44%	587,382	10.63%	567,060
Cost Group #5 – Contra Costa County Fire Protection District	9.85%	345,958	9.72%	389,785
Cost Group #6 – Small Districts (Tier 1 Non-Enhanced)	11.34%	86,275	11.55%	83,759
Safety				
Cost Group #7 – County (Tier A)	15.85%	11,411,285	15.81%	12,562,074
Cost Group #8 – Contra Costa and East Fire Protection Districts	15.26%	5,737,116	15.14%	5,624,198
Cost Group #9 – County (Tier C)	12.49%	1,265,845	12.23%	957,559
Cost Group #10 – Moraga-Orinda Fire District	15.34%	1,153,050	15.49%	1,222,934
Cost Group #11 – San Ramon Valley Fire District	14.54%	2,756,394	14.84%	2,894,435
Cost Group #12 – Rodeo-Hercules Fire Protection District	14.10%	278,737	14.24%	321,529
All Categories Combined	10.98%	\$73,197,642	11.00%	\$75,639,136

⁽¹⁾ Based on projected payroll as of each valuation date shown. These rates do not include any employer subvention of member contributions or any member subvention of employer contributions. The rates shown are averages based on all members regardless of their membership date.

Note: Pages 18 and 19 contain a summary that shows which employers are in each cost group.

SECTION 1: Valuation Summary for the Contra Costa County Employees' Retirement Association

Summary of Key Valuation Results (continued)		
	December 31, 2011	December 31, 2010
Refundability Factors		
General		
Cost Group #1 – County and Small Districts (Tier 1)	0.9838	0.9552
Cost Group #2 – County and Small Districts (Tier 3)	0.9465	0.9520
Cost Group #3 – Central Contra Costa Sanitary District	0.9729	0.9558
Cost Group #4 – Contra Costa Housing Authority	0.9761	0.9532
Cost Group #5 – Contra Costa County Fire Protection District	0.9937	0.9561
Cost Group #6 – Small Districts (Tier 1 Non-Enhanced)	0.9031	0.9544
Safety		
Cost Group #7 – County (Tier A)	0.9966	0.9703
Cost Group #8 – Contra Costa and East Fire Protection Districts	0.9596	0.9706
Cost Group #9 – County (Tier C)	0.8852	0.9715
Cost Group #10 – Moraga-Orinda Fire District	0.9813	0.9722
Cost Group #11 – San Ramon Valley Fire District	0.9894	0.9717
Cost Group #12 – Rodeo-Hercules Fire Protection District	0.9772	0.9735
Funded Status:		
Actuarial accrued liability	\$6,915,311,649	\$6,654,036,801
Valuation value of assets	\$5,426,719,066	\$5,341,821,711
Funded percentage	78.5%	80.3%
Unfunded Actuarial Accrued Liability (UAAL)	\$1,488,592,583	\$1,312,215,090
Key Assumptions:		
Interest rate	7.75%	7.75%
Inflation rate	3.50%	3.50%
Across the board salary increase	0.75%	0.75%

Note: Pages 18 and 19 contain a summary that shows which employers are in each cost group.

SECTION 1: Valuation Summary for the Contra Costa County Employees' Retirement Association

Summary of Contribution Rates with Employer Subvention

	December 31, 2011		December 31, 2010	
Average Employer Contribution Rates ⁽¹⁾ :	Total Rate	Annual Amount	Total Rate	Annual Amount
General				
Cost Group #1 – County and Small Districts (Tier 1)	35.49%	\$10,243,975	31.97%	\$12,109,344
Cost Group #2 – County and Small Districts (Tier 3)	31.85%	144,848,089	29.60%	136,437,081
Cost Group #3 – Central Contra Costa Sanitary District	61.43%	15,195,268	56.90%	13,915,075
Cost Group #4 – Contra Costa Housing Authority	38.47%	2,164,168	37.12%	1,980,175
Cost Group #5 – Contra Costa County Fire Protection District	33.83%	1,188,200	28.61%	1,147,301
Cost Group #6 – Small Districts (Tier 1 Non-Enhanced)	28.28%	215,145	31.05%	225,171
Safety				
Cost Group #7 – County (Tier A)	70.93%	51,057,408	63.23%	50,240,349
Cost Group #8 – Contra Costa and East Fire Protection Districts	59.05%	22,204,573	52.78%	19,605,462
Cost Group #9 – County (Tier C)	63.05%	6,391,899	56.27%	4,405,712
Cost Group #10 – Moraga-Orinda Fire District	52.94%	3,979,298	44.70%	3,529,061
Cost Group #11 – San Ramon Valley Fire District	68.39%	12,968,849	63.55%	12,394,971
Cost Group #12 – Rodeo-Hercules Fire Protection District	72.53%	1,433,817	58.04%	1,310,499
All Employers combined	40.80%	\$271,890,689	37.43%	\$257,300,201
Average Member Contribution Rates ⁽¹⁾ :	Total Rate	Annual Amount	Total Rate	Annual Amount
General				
Cost Group #1 – County and Small Districts (Tier 1)	6.55%	\$1,890,592	6.49%	\$2,458,492
Cost Group #2 – County and Small Districts (Tier 3)	6.50%	29,575,292	6.51%	30,007,557
Cost Group #3 – Central Contra Costa Sanitary District	6.87%	1,699,691	6.91%	1,689,862
Cost Group #4 – Contra Costa Housing Authority	7.16%	402,753	7.32%	390,487
Cost Group #5 – Contra Costa County Fire Protection District	6.75%	237,078	6.69%	268,278
Cost Group #6 – Small Districts (Tier 1 Non-Enhanced)	7.58%	57,638	7.70%	55,839
Safety				
Cost Group #7 – County (Tier A)	11.32%	8,149,634	11.32%	8,994,476
Cost Group #8 – Contra Costa and East Fire Protection Districts	15.26%	5,737,116	15.14%	5,624,198
Cost Group #9 – County (Tier C)	8.14%	824,834	7.87%	616,189
Cost Group #10 – Moraga-Orinda Fire District	15.34%	1,153,050	15.49%	1,222,934
Cost Group #11 – San Ramon Valley Fire District	14.54%	2,756,394	14.84%	2,894,435
Cost Group #12 – Rodeo-Hercules Fire Protection District	14.10%	278,737	14.24%	321,529
All Categories Combined	7.92%	\$52,762,809	7.93%	\$54,544,276

⁽¹⁾ Based on projected payroll as of each valuation date shown. These rates include a 50% employer subvention of members' basic contributions for all employers except Safety Districts. Note that recently negotiated MOU's for County General members no longer include the 50% employer subvention. The rates do not include any member subvention of employer contributions. As of December 31, 2011, for most Safety Tier A employers, Safety members contribute up to an extra 9% of compensation (depending on their MOU) that reduces the employer's contribution rate. The rates shown are averages based on all members regardless of their membership date.

Note: Pages 18 and 19 contain a summary that shows which employers are in each cost group.

SECTION 1: Valuation Summary for the Contra Costa County Employees' Retirement Association

Summary of Key Valuation Demographic and Financial Data			
	December 31, 2011	December 31, 2010	Percentage Change
Active Members:			
Number of members	8,629	8,811	-2.1%
Average age	46.2	46.6	N/A
Average service	10.7	11.1	N/A
Projected total compensation	\$666,394,146	\$687,443,206	-3.1%
Average projected compensation	\$77,227	\$78,021	-1.0%
Retired Member and Beneficiaries:			
Number of members:			
Service retired	5,960	5,469	9.0%
Disability retired	920	921	-0.1%
Beneficiaries	1,205	1,169	3.1%
Total	8,085	7,559	7.0%
Average age	69.1	69.3	N/A
Average Monthly Benefit	\$3,381	\$3,248	4.1%
Vested Terminated Members:			
Number of terminated vested members ⁽¹⁾	2,214	2,231	-0.8%
Average age	46.7	46.1	N/A
Summary of Financial Data:			
Market value of assets	\$5,052,289,458	\$5,027,157,199	0.5%
Return on market value of assets	1.76%	13.35%	N/A
Actuarial value of assets	\$5,441,119,691	\$5,355,971,152	1.6%
Return on actuarial value of assets	2.78%	1.82%	N/A
Valuation value of assets	\$5,426,719,066	\$5,341,821,711	1.6%
Return on valuation value of assets	2.77%	1.80%	N/A

⁽¹⁾ Includes 834 nonvested terminated members as of December 31, 2011 and 806 as of December 31, 2010.

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

A. MEMBER DATA

The Actuarial Valuation and Review considers the number and demographics 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, C and D.

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

CHART 1

Member Population: 2002 – 2011

Year Ended December 31	Active Members	Vested Terminated Members ⁽¹⁾	Retired Members and Beneficiaries	Ratio of Non-Actives to Actives
2002	9,611	1,067	5,619	0.70
2003	9,476	1,248	5,936	0.76
2004	9,358	1,517	6,118	0.82
2005	9,205	1,731	6,437	0.89
2006	9,210	1,919	6,646	0.93
2007	9,421	2,008	6,911	0.95
2008	9,385	2,153	7,012	0.98
2009	8,938	2,209	7,292	1.06
2010	8,811	2,231	7,559	1.11
2011	8,629	2,214	8,085	1.19

⁽¹⁾ Includes nonvested terminated members.

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

Active Members

Plan costs are affected by the age, years of service and compensation of active members. In this year's valuation, there are 8,629 active members with an average age of 46.2, average years of service of 10.7 years and average compensation of \$77,227. The 8,811 active members in the prior valuation had an average age of 46.6, average service of 11.1 years and average compensation of \$78,021.

Among the active members, there were none with unknown age or service information.

Inactive Members

In this year's valuation, there were 2,214 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their employee contributions versus 2,231 in the prior valuation.

These graphs show a distribution of active members by age and by years of service.

CHART 2

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

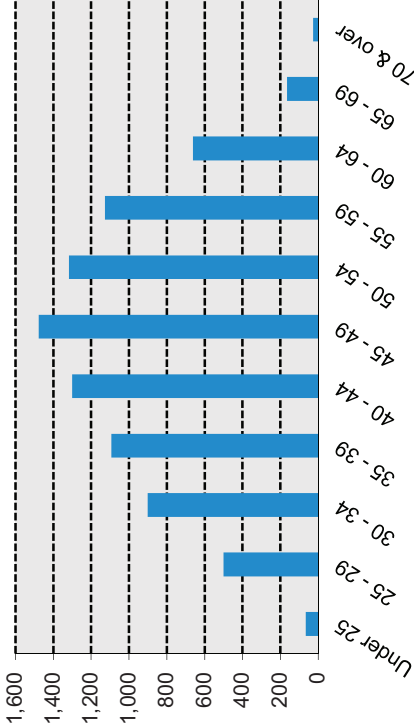
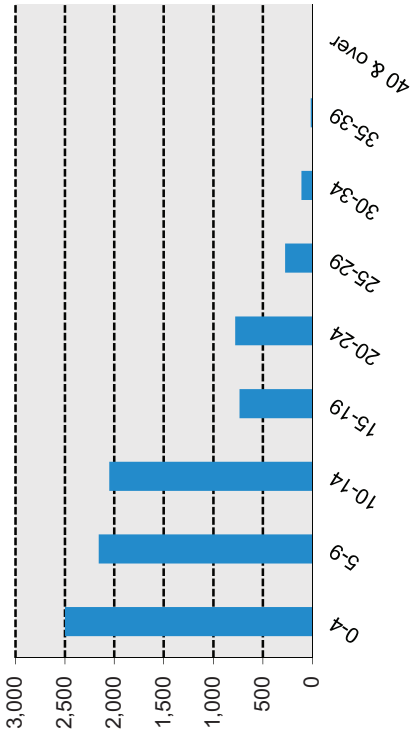


CHART 3

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



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

Retired Members and Beneficiaries

As of December 31, 2011, 6,880 retired members and 1,205 beneficiaries were receiving total monthly benefits of \$27,336,013. For comparison, in the previous valuation, there were 6,390 retired members and 1,169 beneficiaries receiving monthly benefits of \$24,553,122.

These graphs show a distribution of the current retired members and beneficiaries based on their monthly amount and age, by type of pension.

CHART 4

Distribution of Retired Members and Beneficiaries by Type and by Monthly Amount as of December 31, 2011

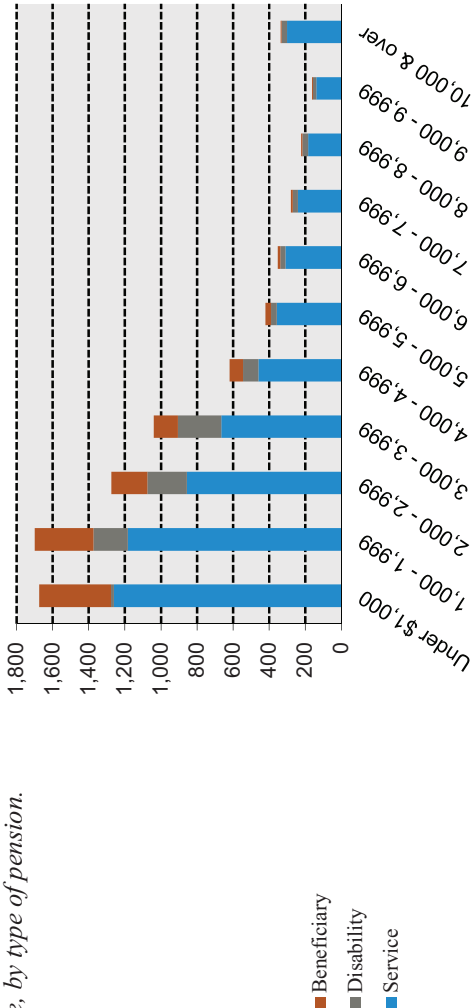
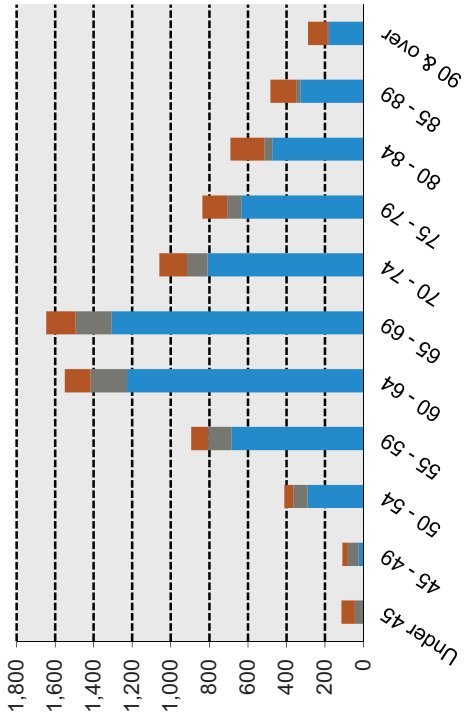


CHART 5

Distribution of Retired Members and Beneficiaries by Type and by Age as of December 31, 2011



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

B. FINANCIAL INFORMATION

Retirement plan funding anticipates that, over the long term, both contributions and net investment earnings (less investment and administrative fees) 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 investment 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 E and F.

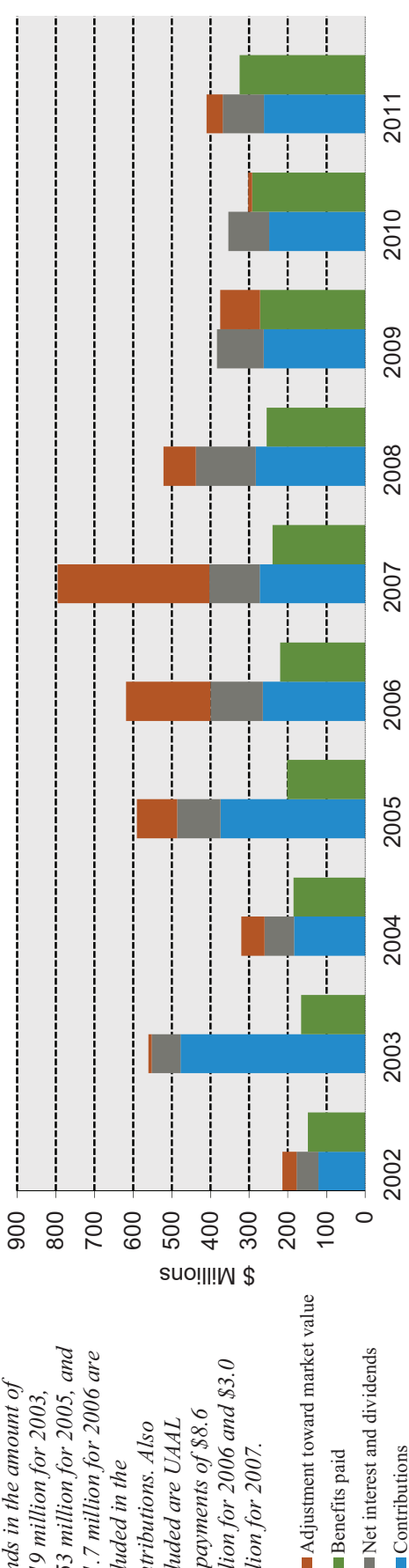
It is desirable to have level and predictable plan costs from one year to the next. For this reason, the Board of Retirement has approved an asset valuation method that gradually adjusts to market value. Under this valuation method, the full value of market fluctuation is not recognized in a single year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

The chart depicts the components of changes in the actuarial value of assets over the last ten years. Pension Obligation Bonds in the amount of \$319 million for 2003, \$153 million for 2005, and \$11.7 million for 2006 are included in the contributions. Also included are UAAL prepayments of \$8.6 million for 2006 and \$3.0 million for 2007.

CHART 6

Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended December 31, 2002 - 2011



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

CHART 7

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

Six Month Period		Total Actual	Expected Market	Investment	Deferred	Deferred
From	To	Market Return (net)	Return (net)	Gain (Loss)	Factor	Return
7/2006	12/2006	\$436,850,889	\$174,623,395	\$262,227,494	0.0	\$0
1/2007	6/2007	260,000,409	192,710,429	67,289,979	0.0	0
7/2007	12/2007	35,143,730	203,536,876	(168,393,146)	0.1	(16,839,315)
1/2008	6/2008	(348,105,153)	205,702,885	(553,808,038)	0.2	(110,761,608)
7/2008	12/2008	(1,128,210,678)	189,989,366	(1,318,200,044)	0.3	(395,460,013)
1/2009	6/2009	106,872,212	146,385,892	(39,513,680)	0.4	(15,805,472)
7/2009	12/2009	628,870,712	150,326,140	478,544,572	0.5	239,272,286
1/2010	6/2010	(94,057,382)	174,278,387	(268,335,769)	0.6	(161,001,462)
7/2010	12/2010	687,503,854	169,679,293	517,824,561	0.7	362,477,193
1/2011	6/2011	292,872,483	195,544,414	97,328,069	0.8	77,862,455
7/2011	12/2011	(205,242,203)	204,284,793	(409,526,996)	0.9	(368,574,296)
1. Total Deferred Return ⁽¹⁾						\$(388,830,233)
2. Market Value of Assets						5,052,289,458
3. Actuarial Value of Assets (Item 2 – Item 1)						5,441,119,691
4. Actuarial Value as Percentage of Market Value (Item 3 / Item 2)						107.7%
5. Non-valuation Reserves and Designations:						
a. Post Retirement Death Benefit						\$14,400,625
b. Statutory Contingency						0
c. Additional One Percent Contingency						0
d. Unrestricted Designation						0
e. Total						\$14,400,625
6. Valuation Value of Assets (Item 3 – Item 5e)						\$5,426,719,066

⁽¹⁾ Deferred Return Recognized in each of the next 5 years:

(a) Amount Recognized during 2012	\$(315,976,780)
(b) Amount Recognized during 2013	(56,555,853)
(c) Amount Recognized during 2014	35,312,430
(d) Amount Recognized during 2015	(10,657,329)
(e) Amount Recognized during 2016	(40,952,700)
(f) Subtotal	\$(388,830,233)

Note: Results may not add due to rounding.

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

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

CHART 8

Allocation of Valuation Value of Assets as of December 31, 2011

The calculation of the valuation value of assets from December 31, 2010 to December 31, 2011 by cost groups is provided below.

	Cost Groups #1 and #2 County and Small Districts (Tier 1 & Tier 3)	General			
		Cost Group #3 Central Contra Costa Sanitary District	Cost Group #4 Contra Costa Housing Authority	Cost Group #5 Contra Costa County Fire Protection District	Cost Group #6 Small Districts (Tier 1 Non-Enhanced)
1 Allocated Valuation Value of Assets As of Beginning of Plan Year	\$2,945,598,136	\$178,448,135	\$34,667,709	\$36,732,941	\$4,032,878
2 Contributions:					
a. Total Member Contributions	33,1813,476	965,809	397,773	319,150	60,686
b. Employer Contributions - Excludes POB and other Special Contributions	122,441,912	10,550,539	1,951,715	730,582	240,920
c. Employer Contributions - Special (POB, Termination, etc.)	1,083,651	0	0	0	0
d. Total Contributions	156,709,039	11,516,348	2,349,488	1,049,732	301,606
3 Total Payments Excluding Post- Retirement Death	177,083,129	12,968,231	2,315,357	2,100,845	163,576
4 Total Transfers Into or Out of Valuation Assets	0	0	0	0	0
5 Subtotal (Item 1 + 2d - 3 + 4)	2,925,224,046	176,996,252	34,701,840	35,681,828	4,170,908
6 Weighted Average Fund Balance	2,935,411,092	177,722,194	34,684,775	36,207,385	4,101,893
7 Earnings Allocated in Proportion to Item 6	81,244,625	4,918,893	959,985	1,002,127	113,530
8 Allocated Valuation Value of Assets As of End of Plan Year (Item 5 + 7)	\$3,006,468,671	\$181,915,145	\$35,661,825	\$36,683,955	\$4,284,438

Note: Results may not add due to rounding.

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

CHART 8 (continued)

Allocation of Valuation Value of Assets as of December 31, 2011

		Safety					Total
		Cost Groups #7 & 9 County (Tier A & Tier C)	Cost Group #8 Contra Costa & East Fire Protection Districts	Cost Group #10 Moraga-Orinda Fire District	Cost Group #11 San Ramon Valley Fire District	Cost Group #12 Rodeo-Hercules Fire Protection District	
1	Allocated Valuation Value of Assets As of Beginning of Plan Year	\$1,106,813,317	\$684,395,355	\$123,113,314	\$207,729,417	\$20,290,511	\$5,341,821,711
2	Contributions:						
a.	Total Member Contributions	13,382,782	8,419,156	1,895,295	2,768,659	182,591	61,575,376
b.	Employer Contributions - Excludes POB and other Special Contributions	38,907,131	10,448,553	1,778,310	10,587,929	949,292	198,586,882
c.	Employer Contributions - Special (POB, Termination, etc.)	718,461	0	0	0	0	1,802,112
d.	Total Contributions	53,008,374	18,867,709	3,673,605	13,356,588	1,131,883	261,964,370
3	Total Payments Excluding Post- Retirement Death	68,210,011	42,042,469	8,250,226	9,680,392	1,241,393	324,055,629
4	Total Transfers Into or Out of Valuation Assets	0	0	0	0	0	0
5	Subtotal (Item 1 + 2d - 3 + 4)	1,091,611,680	661,220,595	118,536,693	211,405,613	20,181,001	5,279,730,452
6	Weighted Average Fund Balance	1,099,212,499	672,807,975	120,825,004	209,567,515	20,235,756	5,310,776,082
7	Earnings Allocated in Proportion to Item 6	30,423,373	18,621,593	3,344,125	5,800,289	560,074	146,988,614
8	Allocated Valuation Value of Assets As of End of Plan Year (Item 5 + 7)	\$1,122,035,053	\$679,842,188	\$121,880,818	\$217,205,902	\$20,741,075	\$ 5,426,719,066

Note: Results may not add due to rounding.

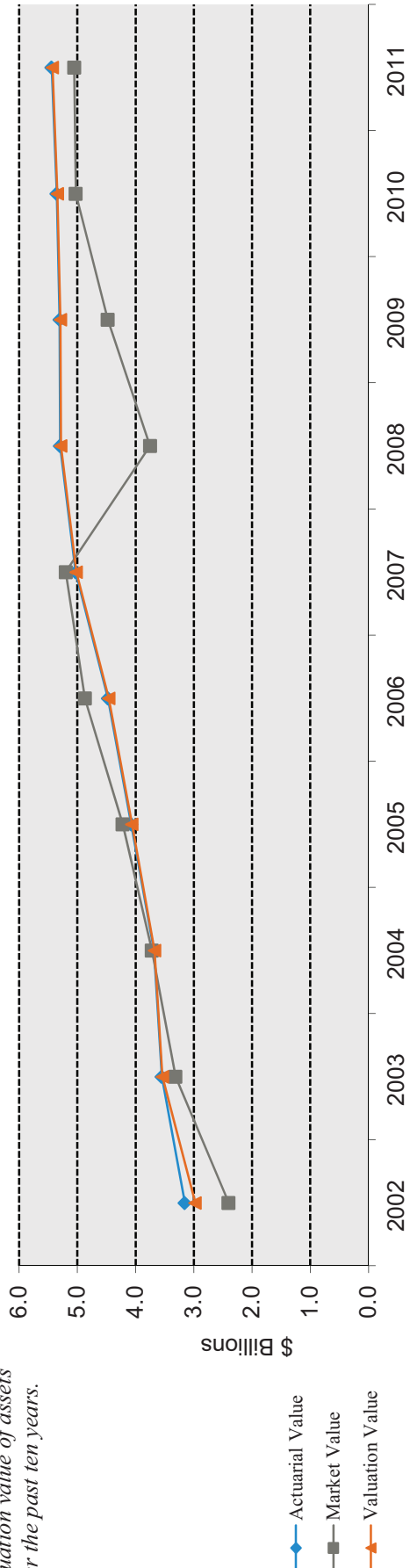
SECTION 2: Valuation Results for the Contra Costa County Employees' Retirement Association

The market value, actuarial value and valuation value of assets are representations of the Plan'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 value of assets is significant because the Plan's liabilities are compared to this measure of its assets to determine what portion, if any, remains unfunded. Amortization of the unfunded liability is an important element in determining the contribution requirement.

This chart shows the change in the relative values of market value, actuarial value and valuation value of assets over the past ten years.

CHART 9
Relative Values of Market Value, Actuarial Value and Valuation Value of Assets for Years Ended December 31, 2002 – 2011



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

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 loss is \$194.8 million, \$264.6 million loss from investments and \$69.8 million gain from all other sources. The net experience variation from individual sources other than investments was 1.0% of the actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

CHART 10

Actuarial Experience for Year Ended December 31, 2011

1. Net gain/(loss) from investments*	\$(264,596,532)
2. Net gain/(loss) from other experience**	<u>69,839,958</u>
3. Net experience gain/(loss): (1) + (2) + (3)	\$(194,756,574)

* Details in Chart 11

** See Section 3, Exhibit I. Does not include the effect of plan or assumption changes, if any.

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

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

Investment Rate of Return

A major component of projected asset growth is the assumed rate of return. The assumed return should represent the expected long-term rate of return, based on the Plan's investment policy. For valuation purposes, the assumed rate of return on the actuarial value of assets during 2011 was 7.75%. The actual rate of return on Actuarial Value for the 2011 Plan Year was 2.78%.

Since the actual return for the year was less than the assumed return, the Plan experienced an actuarial loss on the Actuarial and Valuation Value of Assets during the year ended December 31, 2011.

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

CHART 11

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

	Market Value	Actuarial Value	Valuation Value
1. Actual return	\$88,042,268	\$148,058,548	\$146,988,614
2. Average value of assets	4,995,702,195	5,324,516,148	5,310,776,082
3. Actual rate of return: (1) ÷ (2)	1.76%	2.78%	2.77%
4. Assumed rate of return	7.75%	7.75%	7.75%
5. Expected return: (2) x (4)	387,166,920	412,650,001	411,585,146
6. Actuarial gain/(loss): (1) – (5)	<u>\$(299,124,652)</u>	<u>\$(264,591,453)</u>	<u>\$(264,596,532)</u>

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

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

Based upon recommendations previously adopted by the Board, we have maintained the assumed rate of return of 7.75%.

CHART 12

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

Year Ended December 31	Market Value Investment Return		Actuarial Value Investment Return		Valuation Value Investment Return	
	Amount	Percent of Assets	Amount	Percent of Assets	Amount	Percent of Assets
2002	\$(274,820,794)	(10.28%)	\$93,144,770	3.05%	\$227,080,187	8.53%
2003	599,528,120	23.44%	83,420,012	2.52%	244,215,190	7.41%
2004	406,427,237	12.27%	136,674,234	3.85%	135,741,405	3.84%
2005	331,400,271	8.71%	216,618,073	5.74%	215,737,484	5.74%
2006	603,899,378	14.23%	353,776,306	8.63%	352,838,472	8.64%
2007	294,694,885	6.03%	522,206,583	11.63%	521,211,436	11.64%
2008	(1,477,705,765)	(28.35%)	238,397,117	4.73%	237,402,129	4.72%
2009	736,956,891	19.68%	18,226,933	0.34%	17,021,116	0.32%
2010	594,637,090	13.35%	95,918,913	1.82%	94,835,030	1.80%
2011	88,042,268	1.76%	148,058,548	2.78%	146,988,614	2.77%
Total	\$1,903,059,581		\$1,906,441,489		\$2,193,071,063	
Five-Year Average Return		1.02%			4.01%	4.01%
Ten-Year Average Return		4.77%			4.41%	5.13%

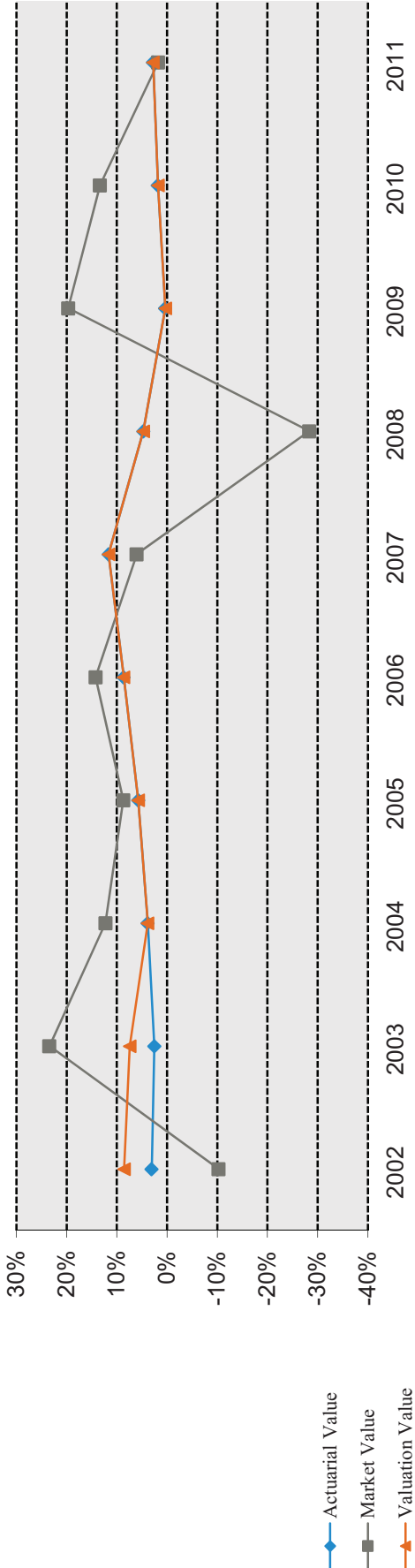
Note: Each year's yield is weighted by the average asset value in that year.

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

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 13

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



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

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:

- the extent of 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.

Please see Exhibit I in Section 3 for a detailed reconciliation of changes in the Unfunded Actuarial Accrued Liability.

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

D. RECOMMENDED CONTRIBUTION

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 combined annual inflation and "across the board" salary increase rate of 4.25% along with expected payroll. The remaining balance of the December 31, 2007 UAAL is being amortized over a 11-year declining period as of December 31, 2011. Any change in the UAAL that arises at each valuation after December 31, 2007 is amortized over its own separate declining 18-year period.

Employer Contribution Rates

The current employer contribution rates are shown in Charts 14-A for members with membership dates before January 1, 2011 and 14-B for members with membership dates on or after January 1, 2011. The recommended employer contributions are provided on Charts 15-A for members with membership dates before January 1, 2011 and 15-B for members with membership dates on or after January 1, 2011. County contribution rates also include the Superior Court.

For the December 31, 2010 valuation, the demographics of members with membership dates on or after January 1, 2011 are assumed to be the same as the demographics of members included in the December 31, 2010 valuation. For the December 31, 2011 valuation, a similar methodology was applied to cost groups #5,

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#10 and #12 since those cost groups had no members with membership dates on or after January 1, 2011.

The amortization cost for the UAAL for members with membership dates before January 1, 2011 has been expressed as a percentage of total future payroll, including members with membership dates on or after January 1, 2011. This has been done in order to continue the open group level percent of payroll amortization methodology for the UAAL associated with members with membership dates before January 1, 2011. It is also consistent with the methodology applied when Safety Tier C was implemented.

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 and Safety members, respectively. The basic contribution rate is determined as that percentage of compensation which if paid annually from a member's first year of membership through the prescribed retirement age would accumulate to the amount necessary to fund a prescribed annuity.

The annuity is equal to:

- 1/120 of one year Final Average Salary per year of service at age 55 for General Tier 1 and Tier 3 Non-enhanced members
- 1/100 of one year Final Average Salary per year of service at age 50 for Safety Tier A Non-enhanced members
- 1/120 of one year Final Average Salary per year of service at age 60 for General Tier 1 and Tier 3 Enhanced members
- 1/100 of one year Final Average Salary per year of service at age 50 for Safety Tier A Enhanced
- 1/100 of three year Final Average Salary per year of service at age 50 for Safety Tier C Enhanced members

Member contributions are accumulated at an annual interest rate adopted annually by the Board. Note that recently negotiated MOU's for County General members no longer include the 50% employer subvention of the members' basic contributions. For

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illustration purposes only, the rates shown in Charts 14 and 15 include the 50% employer subvention of members' basic contributions for all employers (except for Safety Districts). Districts pay varying portions, up to 100%, of the members' basic contributions on a nonrefundable basis. Members also pay 50% of the cost-of-living benefit. For most Safety Tier A employers, Safety members also subvent a portion of the employer rate, currently up to 9% of compensation (depending on their MOU). This is not reflected in Charts 14 and 15. The age specific contribution rates are provided in Appendix A for members with membership dates before January 1, 2011 and Appendix B for members with membership dates on or after January 1, 2011.

For determining the cost of the basic benefit (i.e. non-COLA component), the cost of this pay element is currently recognized in the valuation as an employer only cost and does not affect member contribution rates. The terminal pay assumptions are only used in establishing cost-of-living member contributions.

Cost Sharing Adjustments

Starting with the December 31, 2009 Actuarial Valuation, the Board took action to depool CCCERA's assets, liabilities and normal cost by employer when determining employer contribution rates. The Board action included a review of experience back to December 31, 2002. This did not involve recalculation of any employer rates prior to December 31, 2009. However, it did involve reflecting the separate experience of the employers in each individual cost group back from December 31, 2002 through December 31, 2009. The cost groups are detailed on pages 18 and 19. In addition, the Board action called for a discontinuation of certain cost sharing adjustments for both member and employer contribution rates for General Tier 1 and Safety Tier A. Even under the depooling structure, there are a few remaining cost sharing arrangements. Here is a summary of the cost sharing arrangements that were implemented in the December 31, 2009 Actuarial Valuation:

- Smaller employers (less than 50 active members as of December 31, 2009) were pooled with the applicable County tier. Safety members from the East Contra Costa Fire Protection District were pooled with Safety members of the Contra Costa County Fire Protection District.
- Due to a statutory requirement, the Superior Court was pooled with the County regardless of how many members the Court has.

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

- UAAL costs are pooled between Cost Group #1 and Cost Group #2 which represent General County and Small Districts for Tiers 1 and 3. UAAL costs are also pooled for Cost Groups #7 and #9 which are Safety County Tiers A and C.

Other Adjustments

Other adjustments made in the determination of rates are as follows:

- Adjustments are made to some UAAL amounts for the County, the Contra Costa County Fire Protection District (CCCFPD) and the Moraga-Orinda Fire District (Moraga) to account for Pension Obligation Bonds (POBs) and any other special contributions that they previously made. These adjustments serve to reduce the UAAL contribution rate for these employers. The outstanding balance of these adjustments as of December 31, 2011 is as follows:

	County General	Moraga General	CCCFPD Safety
Basic	\$232,195,183	\$408,903	\$66,648,413
COL	\$186,060,332	\$237,323	\$50,829,064

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

Summary of Cost Groups and Employers			
Cost Group	Employer Name	Benefit Structure	POB Issuance
(1)	County General	Tier 1 Enhanced	Yes
	Local Agency Formation Commission	Tier 1 Enhanced	
	CC Mosquito and Vector Control District	Tier 1 Enhanced	
	Bethel Island Municipal District	Tier 1 Enhanced	
	First 5-Children & Families Commission	Tier 1 Enhanced	
	Contra Costa County Employees' Retirement Association	Tier 1 Enhanced	
	Superior Court	Tier 1 Enhanced	Yes
	East Contra Costa Fire Protection District	Tier 1 Enhanced	
	Moraga-Orinda Fire District	Tier 1 Enhanced	Yes
	Rodeo-Hercules Fire Protection District	Tier 1 Enhanced	
(2)	San Ramon Valley Fire District	Tier 1 Enhanced	
	County General	Tier 3 Enhanced	Yes
	In-Home Supportive Services Authority	Tier 3 Enhanced	
	Contra Costa Mosquito and Vector Control District	Tier 3 Enhanced	
(3)	Superior Court	Tier 3 Enhanced	Yes
	Central Contra Costa Sanitary District	Tier 1 Enhanced	
(4)	Contra Costa Housing Authority	Tier 1 Enhanced	
(5)	Contra Costa County Fire Protection District	Tier 1 Enhanced	Yes
(6)	Rodeo Sanitary District	Tier 1 Non-Enhanced	
	Byron Brentwood Cemetery	Tier 1 Non-Enhanced	

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

Summary of Cost Groups and Employers (continued)

SAFETY

Cost Group	Employer Name	Benefit Structure	POB Issuance
(7)	County Safety	Tier A Enhanced	Yes
(8)	Contra Costa County Fire Protection District East Contra Costa Fire Protection District	Tier A Enhanced Tier A Enhanced	Yes
(9)	County Safety	Tier C Enhanced (Deputy Sheriff members hired on or after January 1, 2007)	Yes
(10)	Moraga-Orinda Fire District	Tier A Enhanced	Yes
(11)	San Ramon Valley Fire District	Tier A Enhanced	
(12)	Rodeo-Hercules Fire Protection District	Tier A Non-Enhanced	

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

CHART 14-A

**Components of Current Employer Contribution Rates for Members with Membership Dates before January 1, 2011
Employer Rates Under Current Assumptions for July 1, 2012 through June 30, 2013**

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

	Enhanced					Enhanced				
	Cost Group #1					Cost Group #1				
	County					Districts without POB				
	Normal Cost	+	UAAL	=	Total	Normal Cost	+	UAAL	=	Total
General Tier 1 (Aggregate)										
Basic	11.76%		8.73%		20.49%	11.76%		13.81%		25.57%
50% Subvention	2.81%		0.00%		2.81%	2.81%		0.00%		2.81%
Basic + 50% Subvention	14.57%		8.73%		23.30%	14.57%		13.81%		28.38%
COL	3.26%		3.37%		6.63%	3.26%		7.44%		10.70%
Total	17.83%		12.10%		29.93%	17.83%		21.25%		39.08%
General Tier 1 (Under \$350)										
Basic	7.97%		5.91%		13.88%	7.97%		9.37%		17.34%
50% Subvention	1.90%		0.00%		1.90%	1.90%		0.00%		1.90%
Basic + 50% Subvention	9.87%		5.91%		15.78%	9.87%		9.37%		19.24%
COL	2.21%		2.28%		4.49%	2.21%		5.04%		7.25%
Total	12.08%		8.19%		20.27%	12.08%		14.41%		26.49%
General Tier 1 (Over \$350)										
Basic	11.95%		8.87%		20.82%	11.95%		14.05%		26.00%
50% Subvention	2.86%		0.00%		2.86%	2.86%		0.00%		2.86%
Basic + 50% Subvention	14.81%		8.87%		23.68%	14.81%		14.05%		28.86%
COL	3.31%		3.42%		6.73%	3.31%		7.56%		10.87%
Total	18.12%		12.29%		30.41%	18.12%		21.61%		39.73%
	Payroll = \$28,697,279					Payroll = \$8,581,647				

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

CHART 14-A (continued)

**Components of Current Employer Contribution Rates for Members with Membership Dates before January 1, 2011
Employer Rates Under Current Assumptions for July 1, 2012 through June 30, 2013**

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

Enhanced				
Cost Group #1				
Districts with POB (Moraga)				
Normal Cost	+	UAAL	=	Total
General Tier 1 (Aggregate)				
Basic	11.76%	6.58%		18.34%
50% Subvention	2.81%	0.00%		2.81%
Basic + 50% Subvention	14.57%	6.58%		21.15%
COL	3.26%	3.24%		6.50%
Total	17.83%	9.82%		27.65%
General Tier 1 (Under \$350)				
Basic	7.97%	4.46%		12.43%
50% Subvention	1.90%	0.00%		1.90%
Basic + 50% Subvention	9.87%	4.46%		14.33%
COL	2.21%	2.19%		4.40%
Total	12.08%	6.65%		18.73%
General Tier 1 (Over \$350)				
Basic	11.95%	6.69%		18.64%
50% Subvention	2.86%	0.00%		2.86%
Basic + 50% Subvention	14.81%	6.69%		21.50%
COL	3.31%	3.29%		6.60%
Total	18.12%	9.98%		28.10%

Payroll = \$602,314

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

CHART 14-A (continued)

**Components of Current Employer Contribution Rates for Members with Membership Dates before January 1, 2011
Employer Rates Under Current Assumptions for July 1, 2012 through June 30, 2013**

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

	Enhanced					Enhanced				
	Cost Group #2					Cost Group #2				
	County					Districts without POB				
	Normal Cost	+	UAAL	=	Total	Normal Cost	+	UAAL	=	Total
General Tier 3 (Aggregate)										
Basic	11.16%		8.73%		19.89%	11.16%		13.81%		24.97%
50% Subvention	3.10%		0.00%		3.10%	3.10%		0.00%		3.10%
Basic + 50% Subvention	14.26%		8.73%		22.99%	14.26%		13.81%		28.07%
COL	3.18%		3.37%		6.55%	3.18%		7.44%		10.62%
Total	17.44%		12.10%		29.54%	17.44%		21.25%		38.69%
General Tier 3 (Under \$350)										
Basic	7.59%		5.94%		13.53%	7.59%		9.39%		16.98%
50% Subvention	2.10%		0.00%		2.10%	2.10%		0.00%		2.10%
Basic + 50% Subvention	9.69%		5.94%		15.63%	9.69%		9.39%		19.08%
COL	2.17%		2.29%		4.46%	2.17%		5.07%		7.24%
Total	11.86%		8.23%		20.09%	11.86%		14.46%		26.32%
General Tier 3 (Over \$350)										
Basic	11.38%		8.91%		20.29%	11.38%		14.09%		25.47%
50% Subvention	3.16%		0.00%		3.16%	3.16%		0.00%		3.16%
Basic + 50% Subvention	14.54%		8.91%		23.45%	14.54%		14.09%		28.63%
COL	3.25%		3.43%		6.68%	3.25%		7.60%		10.85%
Total	17.79%		12.34%		30.13%	17.79%		21.69%		39.48%
	Payroll = \$457,953,654					Payroll = \$2,991,917				

Components of Current Employer Contribution Rates for Members with Membership Dates before January 1, 2011 Employer Rates Under Current Assumptions for July 1, 2012 through June 30, 2013

Enhanced	Enhanced
Cost Group #3	Cost Group #4
Central Contra Costa Sanitary District	Contra Costa Housing Authority

Payroll = \$5,334,523

Enhanced	Non-enhanced
Cost Group #5	Cost Group #6
Contra Costa County Fire Protection District	Districts without POB

Payroll = \$725,188

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

**CHART 14-A (continued)
Components of Current Employer Contribution Rates for Members with Membership Dates before January 1, 2011
Employer Rates Under Current Assumptions for July 1, 2012 through June 30, 2013**

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

Enhanced				
Cost Group #7				
County				
Normal Cost	+	UAAL	=	Total

Safety Tier A				
Basic	21.92%	17.30%		39.22%
50% Subvention	4.36%	0.00%		4.36%
Basic + 50% Subvention	26.28%	17.30%		43.58%
COL	6.75%	12.90%		19.65%
Total	33.03%	30.20%		63.23%
	Payroll = \$79,456,506			

Enhanced				
Cost Group #8				
Contra Costa County Fire Protection District				
Normal Cost	+	UAAL	=	Total

Safety Tier A				
Basic	21.20%	8.28%		29.48%
0% Subvention	0.00%	0.00%		0.00%
Basic + 0% Subvention	21.20%	8.28%		29.48%
COL	6.64%	13.44%		20.08%
Total	27.84%	21.72%		49.56%
	Payroll = \$33,909,602			

Enhanced				
Cost Group #8				
East Contra Costa Fire Protection District				
Normal Cost	+	UAAL	=	Total

	21.20%	29.22%		50.42%
	0.00%	0.00%		0.00%
	21.20%	29.22%		50.42%
	6.64%	29.40%		36.04%
	27.84%	58.62%		86.46%
	Payroll = \$3,238,334			

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

CHART 14-A (continued)

**Components of Current Employer Contribution Rates for Members with Membership Dates before January 1, 2011
Employer Rates Under Current Assumptions for July 1, 2012 through June 30, 2013**

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

Enhanced				
Cost Group #9				
County				
Normal Cost	+	UAAL	=	Total

Safety Tier C				
Basic	18.30%	17.30%		35.60%
50% Subvention	4.24%	0.00%		4.24%
Basic + 50% Subvention	22.54%	17.30%		39.84%
COL	3.53%	12.90%		16.43%
Total	26.07%	30.20%		56.27%
	Payroll = \$7,829,592			

Enhanced				
Cost Group #10				
Moraga-Orinda Fire District				
Normal Cost	+	UAAL	=	Total

Safety Tier A				
Basic	21.62%	5.64%		27.26%
0% Subvention	0.00%	0.00%		0.00%
Basic + 0% Subvention	21.62%	5.64%		27.26%
COL	6.83%	10.61%		17.44%
Total	28.45%	16.25%		44.70%
	Payroll = \$7,894,991			

Enhanced				
Cost Group #11				
San Ramon Valley Fire District				
Normal Cost	+	UAAL	=	Total

	21.61%	21.97%		43.58%
	0.00%	0.00%		0.00%
	21.61%	21.97%		43.58%
	6.97%	13.00%		19.97%
	28.58%	34.97%		63.55%
	Payroll = \$19,504,281			

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

CHART 14-A (continued)

Components of Current Employer Contribution Rates for Members with Membership Dates before January 1, 2011
Employer Rates Under Current Assumptions for July 1, 2012 through June 30, 2013

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

Non-enhanced				
Cost Group #12				
Rodeo-Hercules Fire Protection District				
	Normal Cost	+	UAAL	= Total
Safety Tier A				
Basic	16.99%		22.58%	39.57%
0% Subvention	0.00%		0.00%	0.00%
Basic + 0% Subvention	16.99%		22.58%	39.57%
COL	5.40%		13.07%	18.47%
Total	22.39%		35.65%	58.04%
			Payroll = \$2,257,925	

Total (Includes Both Enhanced and Non-enhanced – County and District)

	Normal Cost	+	UAAL	= Total
Basic	13.63%		10.90%	24.53%
50% Subvention*	2.94%		0.00%	2.94%
Basic + 50% Subvention*	16.57%		10.90%	27.47%
COL	3.98%		5.98%	9.96%
Total	20.55%		16.88%	37.43%
			Payroll = \$687,443,206	

* These rates include the 50% employer subvention of members' basic contributions (except for Safety District rates).

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

CHART 14-B

**Components of Current Employer Contribution Rates for Members with Membership Dates on or after January 1, 2011
Employer Rates Under Current Assumptions for July 1, 2012 through June 30, 2013**

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

	Enhanced					Enhanced				
	Cost Group #1					Cost Group #1				
	Districts without POB					Districts with POB (Moraga)				
	Normal Cost	+	UAAL	=	Total	Normal Cost	+	UAAL	=	Total
General Tier 1 (Aggregate)										
Basic	10.36%		13.81%		24.17%	10.36%		6.58%		16.94%
50% Subvention	2.81%		0.00%		2.81%	2.81%		0.00%		2.81%
Basic + 50% Subvention	13.17%		13.81%		26.98%	13.17%		6.58%		19.75%
COL	3.06%		7.44%		10.50%	3.06%		3.24%		6.30%
Total	16.23%		21.25%		37.48%	16.23%		9.82%		26.05%
General Tier 1 (Under \$350)										
Basic	7.02%		9.37%		16.39%	7.02%		4.46%		11.48%
50% Subvention	1.91%		0.00%		1.91%	1.91%		0.00%		1.91%
Basic + 50% Subvention	8.93%		9.37%		18.30%	8.93%		4.46%		13.39%
COL	2.06%		5.04%		7.10%	2.06%		2.19%		4.25%
Total	10.99%		14.41%		25.40%	10.99%		6.65%		17.64%
General Tier 1 (Over \$350)										
Basic	10.53%		14.05%		24.58%	10.53%		6.69%		17.22%
50% Subvention	2.86%		0.00%		2.86%	2.86%		0.00%		2.86%
Basic + 50% Subvention	13.39%		14.05%		27.44%	13.39%		6.69%		20.08%
COL	3.10%		7.56%		10.66%	3.10%		3.29%		6.39%
Total	16.49%		21.61%		38.10%	16.49%		9.98%		26.47%

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

CHART 14-B (continued)

**Components of Current Employer Contribution Rates for Members with Membership Dates on or after January 1, 2011
Employer Rates Under Current Assumptions for July 1, 2012 through June 30, 2013**

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

	Enhanced			Enhanced		
	Cost Group #2			Cost Group #2		
	County			Districts without POB		
	Normal Cost	+	UAAL	=	Total	
General Tier 3 (Aggregate)						
Basic	10.12%		8.73%		18.85%	
50% Subvention	3.10%		0.00%		3.10%	
Basic + 50% Subvention	13.22%		8.73%		21.95%	
COL	2.98%		3.37%		6.35%	
Total	16.20%		12.10%		28.30%	
General Tier 3 (Under \$350)						
Basic	6.88%		5.94%		12.82%	
50% Subvention	2.11%		0.00%		2.11%	
Basic + 50% Subvention	8.99%		5.94%		14.93%	
COL	2.03%		2.29%		4.32%	
Total	11.02%		8.23%		19.25%	
General Tier 3 (Over \$350)						
Basic	10.32%		8.91%		19.23%	
50% Subvention	3.16%		0.00%		3.16%	
Basic + 50% Subvention	13.48%		8.91%		22.39%	
COL	3.05%		3.43%		6.48%	
Total	16.53%		12.34%		28.87%	
	Normal Cost	+	UAAL	=	Total	
	10.12%		13.81%		23.93%	
	3.10%		0.00%		3.10%	
	13.22%		13.81%		27.03%	
	2.98%		7.44%		10.42%	
	16.20%		21.25%		37.45%	
	6.88%		9.39%		16.27%	
	2.11%		0.00%		2.11%	
	8.99%		9.39%		18.38%	
	2.03%		5.07%		7.10%	
	11.02%		14.46%		25.48%	
	10.32%		14.09%		24.41%	
	3.16%		0.00%		3.16%	
	13.48%		14.09%		27.57%	
	3.05%		7.60%		10.65%	
	16.53%		21.69%		38.22%	

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

CHART 14-B (continued)

**Components of Current Employer Contribution Rates for Members with Membership Dates on or after January 1, 2011
Employer Rates Under Current Assumptions for July 1, 2012 through June 30, 2013**

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

	Enhanced					Enhanced				
	Cost Group #3					Cost Group #4				
	Central Contra Costa Sanitary District					Contra Costa Housing Authority				
	Normal Cost	+	UAAL	=	Total	Normal Cost	+	UAAL	=	Total
General Tier 1 (Aggregate)										
Basic	11.77%		23.96%		35.73%	11.35%		10.35%		21.70%
50% Subvention	2.99%		0.00%		2.99%	3.16%		0.00%		3.16%
Basic + 50% Subvention	14.76%		23.96%		38.72%	14.51%		10.35%		24.86%
COL	3.58%		11.31%		14.89%	3.19%		8.17%		11.36%
Total	18.34%		35.27%		53.61%	17.70%		18.52%		36.22%
General Tier 1 (Under \$350)										
Basic	7.96%		16.21%		24.17%	7.75%		7.06%		14.81%
50% Subvention	2.02%		0.00%		2.02%	2.15%		0.00%		2.15%
Basic + 50% Subvention	9.98%		16.21%		26.19%	9.90%		7.06%		16.96%
COL	2.42%		7.64%		10.06%	2.17%		5.57%		7.74%
Total	12.40%		23.85%		36.25%	12.07%		12.63%		24.70%
General Tier 1 (Over \$350)										
Basic	11.94%		24.31%		36.25%	11.62%		10.59%		22.21%
50% Subvention	3.03%		0.00%		3.03%	3.23%		0.00%		3.23%
Basic + 50% Subvention	14.97%		24.31%		39.28%	14.85%		10.59%		25.44%
COL	3.63%		11.47%		15.10%	3.26%		8.36%		11.62%
Total	18.60%		35.78%		54.38%	18.11%		18.95%		37.06%

Enhanced	Non-enhanced
Cost Group #5	Cost Group #6
Contra Costa County Fire Protection District	Districts without POB

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

**CHART 14-B (continued)
Components of Current Employer Contribution Rates for Members with Membership Dates on or after January 1, 2011
Employer Rates Under Current Assumptions for July 1, 2012 through June 30, 2013**

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

Enhanced				
Cost Group #7				
County				
	Normal Cost	+	UAAL	= Total

Safety Tier A				
Basic	19.24%		17.30%	36.54%
50% Subvention	4.36%		0.00%	4.36%
Basic + 50% Subvention	23.60%		17.30%	40.90%
COL	6.16%		12.90%	19.06%
Total	29.76%		30.20%	59.96%

Enhanced				
Cost Group #8				
East Contra Costa Fire Protection District				
	Normal Cost	+	UAAL	= Total

Safety Tier A				
Basic	18.73%		29.22%	47.95%
0% Subvention	0.00%		0.00%	0.00%
Basic + 0% Subvention	18.73%		29.22%	47.95%
COL	6.12%		29.40%	35.52%
Total	24.85%		58.62%	83.47%

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

CHART 14-B (continued)

**Components of Current Employer Contribution Rates for Members with Membership Dates on or after January 1, 2011
Employer Rates Under Current Assumptions for July 1, 2012 through June 30, 2013**

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

	Enhanced			
	Cost Group #9			
	County			
	Normal Cost	+	UAAL	= Total
Safety Tier C				
Basic	17.47%		17.30%	34.77%
50% Subvention	4.24%		0.00%	4.24%
Basic + 50% Subvention	21.71%		17.30%	39.01%
COL	3.42%		12.90%	16.32%
Total	25.13%		30.20%	55.33%

	Enhanced			
	Cost Group #10			
	Moraga-Orinda Fire District			
	Normal Cost	+	UAAL	= Total
Safety Tier A				
Basic	18.38%		5.64%	24.02%
0% Subvention	0.00%		0.00%	0.00%
Basic + 0% Subvention	18.38%		5.64%	24.02%
COL	5.98%		10.61%	16.59%
Total	24.36%		16.25%	40.61%

	Enhanced			
	Cost Group #11			
	San Ramon Valley Fire District			
	Normal Cost	+	UAAL	= Total
	18.63%		21.97%	40.60%
	0.00%		0.00%	0.00%
	18.63%		21.97%	40.60%
	6.21%		13.00%	19.21%
	24.84%		34.97%	59.81%

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

CHART 14-B (continued)

Components of Current Employer Contribution Rates for Members with Membership Dates on or after January 1, 2011
Employer Rates Under Current Assumptions for July 1, 2012 through June 30, 2013

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

	Non-enhanced			
	Cost Group #12			
	Rodeo-Hercules Fire Protection District			
	Normal Cost	+	UAAL	= Total
Safety Tier A				
Basic	15.22%		22.58%	37.80%
0% Subvention	0.00%		0.00%	0.00%
Basic + 0% Subvention	15.22%		22.58%	37.80%
COL	5.03%		13.07%	18.10%
Total	20.25%		35.65%	55.90%

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

CHART 15-A

**Components of Recommended Employer Contribution Rates for Members with Membership Dates before January 1, 2011
Employer Rates Under Recommended Assumptions for July 1, 2013 through June 30, 2014**

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

	Enhanced					Enhanced				
	Cost Group #1					Cost Group #1				
	County					Districts without POB				
	Normal Cost	+	UAAL	=	Total	Normal Cost	+	UAAL	=	Total
General Tier 1 (Aggregate)										
Basic	11.90%		10.72%		22.62%	11.90%		16.19%		28.09%
50% Subvention	2.96%		0.00%		2.96%	2.96%		0.00%		2.96%
Basic + 50% Subvention	14.86%		10.72%		25.58%	14.86%		16.19%		31.05%
COL	3.26%		3.77%		7.03%	3.26%		8.15%		11.41%
Total	18.12%		14.49%		32.61%	18.12%		24.34%		42.46%
General Tier 1 (Under \$350)										
Basic	8.06%		7.26%		15.32%	8.06%		10.97%		19.03%
50% Subvention	2.01%		0.00%		2.01%	2.01%		0.00%		2.01%
Basic + 50% Subvention	10.07%		7.26%		17.33%	10.07%		10.97%		21.04%
COL	2.21%		2.56%		4.77%	2.21%		5.52%		7.73%
Total	12.28%		9.82%		22.10%	12.28%		16.49%		28.77%
General Tier 1 (Over \$350)										
Basic	12.09%		10.89%		22.98%	12.09%		16.46%		28.55%
50% Subvention	3.01%		0.00%		3.01%	3.01%		0.00%		3.01%
Basic + 50% Subvention	15.10%		10.89%		25.99%	15.10%		16.46%		31.56%
COL	3.32%		3.84%		7.16%	3.32%		8.28%		11.60%
Total	18.42%		14.73%		33.15%	18.42%		24.74%		43.16%
	Payroll = \$19,694,083					Payroll = \$8,460,118				

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

CHART 15-A (continued)

**Components of Recommended Employer Contribution Rates for Members with Membership Dates before January 1, 2011
Employer Rates Under Recommended Assumptions for July 1, 2013 through June 30, 2014**

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

Enhanced				
Cost Group #1				
Districts with POB (Moraga)				
Normal Cost	+	UAAL	=	Total
General Tier 1 (Aggregate)				
Basic	11.90%	5.10%		17.00%
50% Subvention	2.96%	0.00%		2.96%
Basic + 50% Subvention	14.86%	5.10%		19.96%
COL	3.26%	1.71%		4.97%
Total	18.12%	6.81%		24.93%
General Tier 1 (Under \$350)				
Basic	8.06%	3.46%		11.52%
50% Subvention	2.01%	0.00%		2.01%
Basic + 50% Subvention	10.07%	3.46%		13.53%
COL	2.21%	1.16%		3.37%
Total	12.28%	4.62%		16.90%
General Tier 1 (Over \$350)				
Basic	12.09%	5.19%		17.28%
50% Subvention	3.01%	0.00%		3.01%
Basic + 50% Subvention	15.10%	5.19%		20.29%
COL	3.32%	1.74%		5.06%
Total	18.42%	6.93%		25.35%

Payroll = \$409,247

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

CHART 15-A (continued)

**Components of Recommended Employer Contribution Rates for Members with Membership Dates before January 1, 2011
Employer Rates Under Recommended Assumptions for July 1, 2013 through June 30, 2014**

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

	Enhanced					Enhanced				
	Cost Group #2					Cost Group #2				
	County					Districts without POB				
	Normal Cost	+	UAAL	=	Total	Normal Cost	+	UAAL	=	Total
General Tier 3 (Aggregate)										
Basic	11.12%		10.72%		21.84%	11.12%		16.19%		27.31%
50% Subvention	3.07%		0.00%		3.07%	3.07%		0.00%		3.07%
Basic + 50% Subvention	14.19%		10.72%		24.91%	14.19%		16.19%		30.38%
COL	3.16%		3.77%		6.93%	3.16%		8.15%		11.31%
Total	17.35%		14.49%		31.84%	17.35%		24.34%		41.69%
General Tier 3 (Under \$350)										
Basic	7.56%		7.29%		14.85%	7.56%		11.01%		18.57%
50% Subvention	2.09%		0.00%		2.09%	2.09%		0.00%		2.09%
Basic + 50% Subvention	9.65%		7.29%		16.94%	9.65%		11.01%		20.66%
COL	2.14%		2.56%		4.70%	2.14%		5.54%		7.68%
Total	11.79%		9.85%		21.64%	11.79%		16.55%		28.34%
General Tier 3 (Over \$350)										
Basic	11.34%		10.94%		22.28%	11.34%		16.51%		27.85%
50% Subvention	3.13%		0.00%		3.13%	3.13%		0.00%		3.13%
Basic + 50% Subvention	14.47%		10.94%		25.41%	14.47%		16.51%		30.98%
COL	3.22%		3.84%		7.06%	3.22%		8.32%		11.54%
Total	17.69%		14.78%		32.47%	17.69%		24.83%		42.52%
					Payroll = \$429,208,477					Payroll = \$3,079,346

**Components of Recommended Employer Contribution Rates for Members with Membership Dates before January 1, 2011
Employer Rates Under Recommended Assumptions for July 1, 2013 through June 30, 2014**

Enhanced		
Cost Group #3		
Central Contra Costa Sanitary District		
Normal Cost	+	UAAL
	=	Total
Enhanced		
Cost Group #4		
Contra Costa Housing Authority		
Normal Cost	+	UAAL
	=	Total

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

CHART 15-A (continued)

**Components of Recommended Employer Contribution Rates for Members with Membership Dates before January 1, 2011
Employer Rates Under Recommended Assumptions for July 1, 2013 through June 30, 2014**

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

	Enhanced			Non-enhanced		
	Cost Group #5			Cost Group #6		
	Contra Costa County Fire Protection District			Districts without POB		
	Normal Cost	+	UAAL	=	Total	
General Tier 1 (Aggregate)						
Basic	11.87%		10.41%		22.28%	11.88%
50% Subvention	3.08%		0.00%		3.08%	3.39%
Basic + 50% Subvention	14.95%		10.41%		25.36%	15.27%
COL	3.15%		5.32%		8.47%	3.59%
Total	18.10%		15.73%		33.83%	18.86%
General Tier 1 (Under \$350)						
Basic	8.06%		7.07%		15.13%	8.09%
50% Subvention	2.09%		0.00%		2.09%	2.30%
Basic + 50% Subvention	10.15%		7.07%		17.22%	10.39%
COL	2.14%		3.61%		5.75%	2.45%
Total	12.29%		10.68%		22.97%	12.84%
General Tier 1 (Over \$350)						
Basic	12.09%		10.60%		22.69%	12.13%
50% Subvention	3.14%		0.00%		3.14%	3.46%
Basic + 50% Subvention	15.23%		10.60%		25.83%	15.59%
COL	3.20%		5.42%		8.62%	3.67%
Total	18.43%		16.02%		34.45%	19.26%
					Payroll = \$3,512,267	Payroll = \$670,838

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

CHART 15-A (continued)
Components of Recommended Employer Contribution Rates for Members with Membership Dates before January 1, 2011
Employer Rates Under Recommended Assumptions for July 1, 2013 through June 30, 2014

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

Enhanced				
Cost Group #7				
County				
	Normal Cost	+	UAAL	= Total

Safety Tier A				
Basic	22.06%		22.25%	44.31%
50% Subvention	4.51%		0.00%	4.51%
Basic + 50% Subvention	26.57%		22.25%	48.82%
COL	6.68%		15.42%	22.10%
Total	33.25%		37.67%	70.92%
	Payroll = \$71,819,816			

Enhanced				
Cost Group #8				
Contra Costa County Fire Protection District				
	Normal Cost	+	UAAL	= Total

Safety Tier A				
Basic	21.33%		12.59%	33.92%
0% Subvention	0.00%		0.00%	0.00%
Basic + 0% Subvention	21.33%		12.59%	33.92%
COL	6.83%		15.17%	22.00%
Total	28.16%		27.76%	55.92%
	Payroll = \$31,342,830			

Enhanced				
Cost Group #8				
East Contra Costa Fire Protection District				
	Normal Cost	+	UAAL	= Total

	21.33%		34.12%	55.45%
	0.00%		0.00%	0.00%
	21.33%		34.12%	55.45%
	6.83%		31.58%	38.41%
	28.16%		65.70%	93.86%
	Payroll = \$3,225,793			

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

CHART 15-A (continued)

**Components of Recommended Employer Contribution Rates for Members with Membership Dates before January 1, 2011
Employer Rates Under Recommended Assumptions for July 1, 2013 through June 30, 2014**

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

Enhanced				
Cost Group #9				
County				
Normal Cost	+	UAAL	=	Total

Safety Tier C				
Basic	18.51%	22.25%		40.76%
50% Subvention	3.88%	0.00%		3.88%
Basic + 50% Subvention	22.39%	22.25%		44.64%
COL	3.57%	15.42%		18.99%
Total	25.96%	37.67%		63.63%
	Payroll = \$8,106,818			

Enhanced				
Cost Group #10				
Moraga-Orinda Fire District				
Normal Cost	+	UAAL	=	Total

Safety Tier A				
Basic	21.50%	10.53%		32.03%
0% Subvention	0.00%	0.00%		0.00%
Basic + 0% Subvention	21.50%	10.53%		32.03%
COL	6.83%	14.08%		20.91%
Total	28.33%	24.61%		52.94%
	Payroll = \$7,516,620			

Enhanced				
Cost Group #11				
San Ramon Valley Fire District				
Normal Cost	+	UAAL	=	Total

	21.72%	25.51%		47.23%
	0.00%	0.00%		0.00%
	21.72%	25.51%		47.23%
	7.03%	14.19%		21.22%
	28.75%	39.70%		68.45%
	Payroll = \$18,460,540			

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

CHART 15-A (continued)

Components of Recommended Employer Contribution Rates for Members with Membership Dates before January 1, 2011
Employer Rates Under Recommended Assumptions for July 1, 2013 through June 30, 2014

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

Non-enhanced				
Cost Group #12				
Rodeo-Hercules Fire Protection District				
	Normal Cost	+	UAAL	= Total
Safety Tier A				
Basic	16.86%		32.70%	49.56%
0% Subvention	0.00%		0.00%	0.00%
Basic + 0% Subvention	16.86%		32.70%	49.56%
COL	5.33%		17.64%	22.97%
Total	22.19%		50.34%	72.53%
			Payroll = \$1,976,861	

Total (Includes Both Enhanced and Non-enhanced – County and District)

	Normal Cost	+	UAAL	= Total
Basic	13.63%		13.59%	27.22%
50% Subvention*	2.94%		0.00%	2.94%
Basic + 50% Subvention*	16.57%		13.59%	30.16%
COL	3.97%		6.84%	10.81%
Total	20.54%		20.44%	40.97%
			Payroll = \$636,980,097	

* These rates include the 50% employer subvention of members' basic contributions (except for Safety District rates).

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

CHART 15-B

**Components of Recommended Employer Contribution Rates for Members with Membership Dates on or after January 1, 2011
Employer Rates Under Recommended Assumptions for July 1, 2013 through June 30, 2014**

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

	Enhanced					Enhanced				
	Cost Group #1					Cost Group #1				
	Districts without POB					Districts with POB (Moraga)				
	Normal Cost	+	UAAL	=	Total	Normal Cost	+	UAAL	=	Total
General Tier 1 (Aggregate)										
	Basic	11.89%		16.19%	28.08%	11.89%		5.10%	16.99%	
	50% Subvention	3.12%		0.00%	3.12%	3.12%		0.00%	3.12%	
	Basic + 50% Subvention	15.01%		16.19%	31.20%	15.01%		5.10%	20.11%	
	COL	3.54%		8.15%	11.69%	3.54%		1.71%	5.25%	
Total	18.55%		24.34%	42.89%	18.55%		6.81%	25.36%		
General Tier 1 (Under \$350)										
	Basic	8.12%		10.97%	19.09%	8.12%		3.46%	11.58%	
	50% Subvention	2.13%		0.00%	2.13%	2.13%		0.00%	2.13%	
	Basic + 50% Subvention	10.25%		10.97%	21.22%	10.25%		3.46%	13.71%	
	COL	2.42%		5.52%	7.94%	2.42%		1.16%	3.58%	
Total	12.67%		16.49%	29.16%	12.67%		4.62%	17.29%		
General Tier 1 (Over \$350)										
	Basic	12.18%		16.46%	28.64%	12.18%		5.19%	17.37%	
	50% Subvention	3.20%		0.00%	3.20%	3.20%		0.00%	3.20%	
	Basic + 50% Subvention	15.38%		16.46%	31.84%	15.38%		5.19%	20.57%	
	COL	3.62%		8.28%	11.90%	3.62%		1.74%	5.36%	
Total	19.00%		24.74%	43.74%	19.00%		6.93%	25.93%		
				Payroll = \$297,370				Payroll = \$0		

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

CHART 15-B (continued)

**Components of Recommended Employer Contribution Rates for Members with Membership Dates on or after January 1, 2011
Employer Rates Under Recommended Assumptions for July 1, 2013 through June 30, 2014**

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

	Enhanced			Enhanced		
	Cost Group #2			Cost Group #2		
	County			Districts without POB		
	Normal Cost	+	UAAL	=	Total	
General Tier 3 (Aggregate)						
Basic	10.18%		10.72%		20.90%	
50% Subvention	3.19%		0.00%		3.19%	26.37%
Basic + 50% Subvention	13.37%		10.72%		24.09%	3.19%
COL	2.92%		3.77%		6.69%	29.56%
Total	16.29%		14.49%		30.78%	11.07%
General Tier 3 (Under \$350)						40.63%
Basic	7.00%		7.29%		14.29%	
50% Subvention	2.19%		0.00%		2.19%	18.01%
Basic + 50% Subvention	9.19%		7.29%		16.48%	2.19%
COL	2.00%		2.56%		4.56%	20.20%
Total	11.19%		9.85%		21.04%	7.54%
General Tier 3 (Over \$350)						27.74%
Basic	10.50%		10.94%		21.44%	
50% Subvention	3.29%		0.00%		3.29%	27.01%
Basic + 50% Subvention	13.79%		10.94%		24.73%	3.29%
COL	3.00%		3.84%		6.84%	30.30%
Total	16.79%		14.78%		31.57%	11.32%
						41.62%
						Payroll = \$0
						Payroll = \$22,431,223

Components of Recommended Employer Contribution Rates for Members with Membership Dates on or after January 1, 2011 Employer Rates Under Recommended Assumptions for July 1, 2013 through June 30, 2014

Enhanced			
Cost Group #3			
Central Contra Costa Sanitary District			
Normal Cost	+	UAAL	= Total
Enhanced			
Cost Group #4			
Contra Costa Housing Authority			
Normal Cost	+	UAAL	= Total

Payroll = \$86,009

**Components of Recommended Employer Contribution Rates for Members with Membership Dates on or after January 1, 2011
Employer Rates Under Recommended Assumptions for July 1, 2013 through June 30, 2014**

Enhanced	Non-enhanced
Cost Group #5	Cost Group #6
Contra Costa County Fire Protection District	Districts without POB

Payroll = \$89,934

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

CHART 15-B (continued)

**Components of Recommended Employer Contribution Rates for Members with Membership Dates on or after January 1, 2011
Employer Rates Under Recommended Assumptions for July 1, 2013 through June 30, 2014**

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

Enhanced				
Cost Group #7				
County				
	Normal Cost	+	UAAL	= Total

Safety Tier A				
Basic	25.26%		22.25%	47.51%
50% Subvention	5.03%		0.00%	5.03%
Basic + 50% Subvention	30.29%		22.25%	52.54%
COL	7.54%		15.42%	22.96%
Total	37.83%		37.67%	75.50%
	Payroll = \$162,642			

Enhanced				
Cost Group #8				
Contra Costa County Fire Protection District				
	Normal Cost	+	UAAL	= Total

Safety Tier A				
Basic	20.06%		12.59%	32.65%
0% Subvention	0.00%		0.00%	0.00%
Basic + 0% Subvention	20.06%		12.59%	32.65%
COL	6.53%		15.17%	21.70%
Total	26.59%		27.76%	54.35%
	Payroll = \$3,035,755			

Enhanced				
Cost Group #8				
East Contra Costa Fire Protection District				
	Normal Cost	+	UAAL	= Total

	20.06%		34.12%	54.18%
	0.00%		0.00%	0.00%
	20.06%		34.12%	54.18%
	6.53%		31.58%	38.11%
	26.59%		65.70%	92.29%
	Payroll = \$0			

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

CHART 15-B (continued)

**Components of Recommended Employer Contribution Rates for Members with Membership Dates on or after January 1, 2011
Employer Rates Under Recommended Assumptions for July 1, 2013 through June 30, 2014**

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

Enhanced				
Cost Group #9				
County				
Normal Cost	+	UAAL	=	Total

Safety Tier C				
Basic	16.09%	22.25%		38.34%
50% Subvention	3.74%	0.00%		3.74%
Basic + 50% Subvention	19.83%	22.25%		42.08%
COL	3.22%	15.42%		18.64%
Total	23.05%	37.67%		60.72%
	Payroll = \$2,031,507			

Enhanced				
Cost Group #10				
Moraga-Orinda Fire District				
Normal Cost	+	UAAL	=	Total

Safety Tier A				
Basic	18.28%	10.53%		28.81%
0% Subvention	0.00%	0.00%		0.00%
Basic + 0% Subvention	18.28%	10.53%		28.81%
COL	5.86%	14.08%		19.94%
Total	24.14%	24.61%		48.75%
	Payroll = \$0			

Enhanced				
Cost Group #11				
San Ramon Valley Fire District				
Normal Cost	+	UAAL	=	Total

	20.12%	25.51%		45.63%
	0.00%	0.00%		0.00%
	20.12%	25.51%		45.63%
	6.48%	14.19%		20.67%
	26.60%	39.70%		66.30%
	Payroll = \$501,674			

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

CHART 15-B (continued)

Components of Recommended Employer Contribution Rates for Members with Membership Dates on or after January 1, 2011
Employer Rates Under Recommended Assumptions for July 1, 2013 through June 30, 2014

7.75% Interest, 4.25% Wage Inflation, Plus Merit Salary Increase Assumptions

Non-enhanced				
Cost Group #12				
Rodeo-Hercules Fire Protection District				
	Normal Cost	+	UAAL	= Total
Safety Tier A				
Basic	15.10%		32.70%	47.80%
0% Subvention	0.00%		0.00%	0.00%
Basic + 0% Subvention	15.10%		32.70%	47.80%
COL	4.97%		17.64%	22.61%
Total	20.07%		50.34%	70.41%
			Payroll = \$0	

Total (Includes Both Enhanced and Non-enhanced – County and District)

	Normal Cost	+	UAAL	= Total
Basic	11.98%		12.51%	24.49%
50% Subvention*	2.86%		0.00%	2.86%
Basic + 50% Subvention*	14.84%		12.51%	27.35%
COL	3.43%		6.27%	9.70%
Total	18.27%		18.78%	37.05%
			Payroll = \$29,414,049	

* These rates include the 50% employer subvention of members' basic contributions (except for Safety District rates).

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

The employer contribution rates as of December 31, 2011 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

Reconciliation of Recommended Employer Contribution Rate

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

CHART 16

Reconciliation of Recommended Average Employer Contribution from December 31, 2010 to December 31, 2011 Valuation

	Contribution Rate*	Estimated Annual Dollar Cost**
Recommended Average Employer Contribution Rate in December 31, 2010 Valuation	34.49%	\$237,107,380
Effect of investment (gain)/loss ⁽¹⁾	3.00%	19,991,824
Effect of difference in actual versus expected contributions due to delay in implementation of contribution rates calculated in 12/31/2010 valuation	0.54%	3,598,528
Effect of lower than expected individual salary increases ⁽²⁾	(0.87%)	(5,797,629)
Effect of amortizing prior year's UAAL over a smaller than expected projected total salary ⁽³⁾	1.27%	8,463,206
Effect of lower than expected COLA increases ⁽⁴⁾	(0.59%)	(3,931,725)
Effect of net other experience (gains)/losses ⁽⁵⁾	0.03%	(7,094,337)
Total change	<u>3.38%</u>	<u>\$15,229,867</u>
Recommended Average Employer Contribution Rate in December 31, 2011 Valuation	37.87%	\$252,337,247

* These rates do not include any employer subvention of member contributions, or member subvention of employer contributions.

** Based on projected payroll for each valuation date shown.

(1) Return on the valuation value of assets of 2.77% was less than the 7.75% assumed in the valuation.

(2) Lower individual salary increases decrease costs.

(3) Lower total payroll growth increases the UAAL contribution rate, since the remaining UAAL is amortized over a lower payroll.

(4) The actual COLAs granted on April 1, 2011 were less than those assumed for some retirees and beneficiaries.

(5) Other differences in actual versus expected experience including (but not limited to) mortality, disability, withdrawal, retirement and terminal pay experience. Estimated annual dollar cost also reflects change in payroll from prior valuation.

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

The member contribution rates as of December 31, 2011 are based on all of the data described in the previous sections, the actuarial assumptions described in Section 4, and the Plan provisions adopted at the time of preparation of the Actuarial Valuation. They include all changes affecting future costs, adopted benefit changes, actuarial gains and losses and changes in the actuarial assumptions.

Reconciliation of Recommended Member Contribution Rate

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

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

CHART 17

Reconciliation of Recommended Average Member Contribution from December 31, 2010 to December 31, 2011 Valuation

	Contribution Rate*	Estimated Annual Dollar Cost**
Recommended Average Member Contribution Rate in December 31, 2010 Valuation	11.00%	\$75,639,136
Effect of other experience (gains)/losses ⁽¹⁾	-0.02%	(2,441,494)
Total change	<u>-0.02%</u>	<u>\$(2,441,494)</u>
Recommended Average Member Contribution Rate in December 31, 2011 Valuation	10.98%	\$73,197,642

* These rates do not include any employer subvention of member contributions, or member subvention of employer contributions.

** Based on projected payroll for each valuation date shown.

⁽¹⁾ Other differences in actual versus expected experience. Estimated annual dollar cost also reflects change in payroll from prior valuation.

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

E. INFORMATION REQUIRED BY GASB

Government 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 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 the GASB funding requirements. Chart 18 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 of the plan to the liabilities of the plan as calculated under GASB requirements. High ratios indicate a well-funded plan with assets sufficient to cover the Plan's liabilities. 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 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 18
Required Versus Actual Contributions

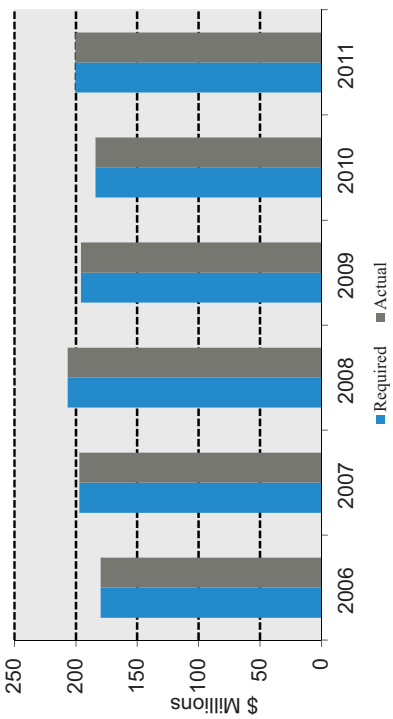
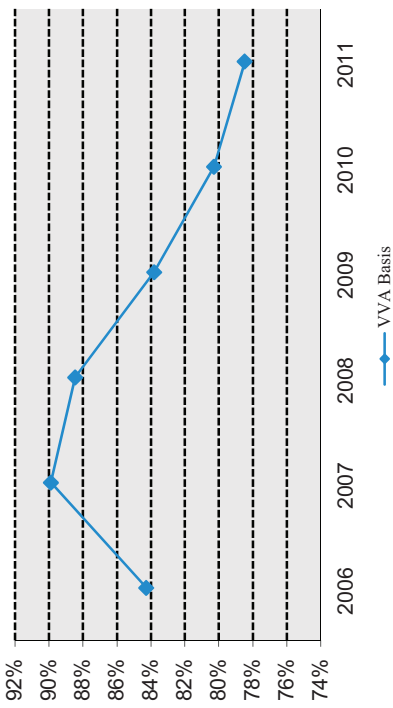


CHART 19
Funded Ratio



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

EXHIBIT A

Table of Plan Coverage

i. General Tier 1

Category	Year Ended December 31		Change From Prior Year
	2011	2010	
Active members in valuation			
Number	726	832	-12.7%
Average age	49.1	50.1	N/A
Average service	14.9	16.7	N/A
Projected total compensation ⁽¹⁾	\$63,333,022	\$72,406,404	-12.5%
Projected average compensation	\$87,236	\$87,027	0.2%
Account balances	\$51,097,289	\$66,710,409	-23.4%
Total active vested members	597	703	-15.1%
Vested terminated members ⁽²⁾			
	279	303	-7.9%
Retired members			
Number in pay status	2,719	2,690	1.1%
Average age	73.4	73.5	N/A
Average monthly benefit	\$3,485	\$3,322	4.9%
Disabled members			
Number in pay status ⁽³⁾	314	324	-3.1%
Average age	69.1	68.4	N/A
Average monthly benefit	\$2,455	\$2,385	2.9%
Beneficiaries			
Number in pay status	705	705	0.0%
Average age	76.2	75.8	N/A
Average monthly benefit	\$1,867	\$1,762	6.0%

⁽¹⁾ Calculated by increasing actual calendar year salaries by the assumed salary scale.

⁽²⁾ Includes nonvested terminated members.

⁽³⁾ For 2011, includes 232 members receiving a service-connected disability and 82 members receiving an ordinary disability.

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

EXHIBIT A (continued)

Table of Plan Coverage

ii. General Tier 2

Category	Year Ended December 31		Change From Prior Year
	2011	2010	
Active members in valuation			
Number ⁽¹⁾	0	0	N/A
Average age	N/A	N/A	N/A
Average service	N/A	N/A	N/A
Projected total compensation ⁽²⁾	N/A	N/A	N/A
Projected average compensation	N/A	N/A	N/A
Account balances	N/A	N/A	N/A
Total active vested members	N/A	N/A	N/A
Vested terminated members ⁽³⁾			
	276	288	-4.2%
Retired members			
Number in pay status	432	431	0.2%
Average age	72.0	71.4	N/A
Average monthly benefit	\$781	\$772	1.2%
Disabled members			
Number in pay status ⁽⁴⁾	50	53	-5.7%
Average age	68.2	67.4	N/A
Average monthly benefit	\$1,921	\$1,902	1.0%
Beneficiaries			
Number in pay status	93	92	1.1%
Average age	62.0	61.4	N/A
Average monthly benefit	\$840	\$827	1.6%

⁽¹⁾ As of the December 31, 2005 valuation, there are no longer any Tier 2 Active Members since they have all transferred to Tier 3.

⁽²⁾ Calculated by increasing actual calendar year salaries by the assumed salary scale.

⁽³⁾ Includes nonvested terminated members.

⁽⁴⁾ For 2011, includes 26 members receiving a service-connected disability and 24 members receiving an ordinary disability.

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

EXHIBIT A (continued)

Table of Plan Coverage

iii. General Tier 3

Category	Year Ended December 31		Change From Prior Year
	2011	2010	
Active members in valuation			
Number	6,457	6,493	-0.6%
Average age	47.1	47.4	N/A
Average service	10.0	10.2	N/A
Projected total compensation ⁽¹⁾	\$454,880,269	\$460,945,571	-1.3%
Projected average compensation	\$70,448	\$70,991	-0.8%
Account balances	\$317,284,200	\$315,234,892	0.7%
Total active vested members	4,522	4,546	-0.5%
Vested terminated members ⁽²⁾			
	1,357	1,329	2.1%
Retired members			
Number in pay status	1,730	1,349	28.2%
Average age	65.0	65.0	N/A
Average monthly benefit	\$2,395	\$2,218	8.0%
Disabled members			
Number in pay status ⁽³⁾	73	70	4.3%
Average age	60.8	59.9	N/A
Average monthly benefit	\$2,125	\$2,102	1.1%
Beneficiaries			
Number in pay status	92	79	16.5%
Average age	57.6	56.0	N/A
Average monthly benefit	\$1,383	\$1,299	6.5%

⁽¹⁾ Calculated by increasing actual calendar year salaries by the assumed salary scale.

⁽²⁾ Includes nonvested terminated members.

⁽³⁾ For 2011, includes 23 members receiving a service-connected disability and 50 members receiving an ordinary disability.

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

EXHIBIT A (continued)
Table of Plan Coverage
iv. Safety Tier A

Year Ended December 31			Change From Prior Year
Category	2011	2010	
Active members in valuation			
Number	1,315	1,388	-5.3%
Average age	41.9	42.1	N/A
Average service	12.5	12.9	N/A
Projected total compensation ⁽¹⁾	\$138,042,530	\$146,261,639	-5.6%
Projected average compensation	\$104,975	\$105,376	-0.4%
Account balances	\$266,690,587	\$262,347,874	1.7%
Total active vested members	1,315	1,144	14.9%
Vested terminated members ⁽²⁾			
	289	300	-3.7%
Retired members			
Number in pay status	1,079	999	8.0%
Average age	65.0	65.4	N/A
Average monthly benefit	\$6,897	\$6,653	3.7%
Disabled members			
Number in pay status ⁽³⁾	483	474	1.9%
Average age	61.0	60.7	N/A
Average monthly benefit	\$5,008	\$4,903	2.1%
Beneficiaries			
Number in pay status	315	293	7.5%
Average age	67.8	67.3	N/A
Average monthly benefit	\$3,101	\$3,003	3.3%

⁽¹⁾ Calculated by increasing actual calendar year salaries by the assumed salary scale.

⁽²⁾ Includes nonvested terminated members.

⁽³⁾ For 2011, includes 463 members receiving a service-connected disability and 20 members receiving an ordinary disability.

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

EXHIBIT A (continued)
Table of Plan Coverage
v. Safety Tier C

Category	Year Ended December 31		Change From Prior Year
	2011	2010	
Active members in valuation			
Number	131	98	33.7%
Average age	32.3	32.3	N/A
Average service	2.8	2.4	N/A
Projected total compensation ⁽¹⁾	\$10,138,325	\$7,829,592	29.5%
Projected average compensation	\$77,392	\$79,894	-3.1%
Account balances	\$2,542,182	\$1,681,896	51.1%
Total active vested members	4	3	33.3%
Vested terminated members ⁽²⁾			
	13	11	18.2%
Retired members			
Number in pay status	0	0	0.0%
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A
Disabled members			
Number in pay status	0	0	0.0%
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A
Beneficiaries			
Number in pay status	0	0	0.0%
Average age	N/A	N/A	N/A
Average monthly benefit	N/A	N/A	N/A

⁽¹⁾ Calculated by increasing actual calendar year salaries by the assumed salary scale.

⁽²⁾ Includes nonvested terminated members.

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

EXHIBIT B

**Members in Active Service and Projected Compensation as of December 31, 2011
By Age and Years of Service**

i. General Tier 1 Non-Enhanced

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	2	2	--	--	--	--	--	--	--	--	
	\$46,126	\$46,126	--	--	--	--	--	--	--	--	
35 - 39	--	--	--	--	--	--	--	--	--	--	
	--	--	--	--	--	--	--	--	--	--	
40 - 44	--	--	--	--	--	--	--	--	--	--	
	3	--	2	1	--	--	--	--	--	--	
45 - 49	83,488	--	\$94,965	\$60,534	--	--	--	--	--	--	
	1	1	--	--	--	--	--	--	--	--	
50 - 54	17,467	17,467	--	--	--	--	--	--	--	--	
	3	3	--	--	--	--	--	--	--	--	
55 - 59	60,116	60,116	--	--	--	--	--	--	--	--	
	--	--	--	--	--	--	--	--	--	--	
60 - 64	--	--	--	--	--	--	--	--	--	--	
	3	--	1	--	--	--	--	2	--	--	
65 & over	63,126	--	37,406	--	--	--	--	\$75,986	--	--	
	1	--	1	--	--	--	--	--	--	--	
Total	30,865	--	30,865	--	--	--	--	--	--	--	
	13	6	4	1	--	--	--	2	--	--	
	\$58,521	\$48,344	\$64,550	\$60,534	--	--	--	\$75,986	--	--	

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

EXHIBIT B (continued)

**Members in Active Service and Projected Compensation as of December 31, 2011
By Age and Years of Service**

ii. General Tier 1 Enhanced

Age	Total	Years of Service										40 & over
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39			
Under 25	--	--	--	--	--	--	--	--	--	--	--	
25 - 29	--	--	--	--	--	--	--	--	--	--	--	
	29	25	4	--	--	--	--	--	--	--	--	
30 - 34	\$63,595	\$64,183	\$59,918	--	--	--	--	--	--	--	--	
	42	17	22	3	--	--	--	--	--	--	--	
35 - 39	75,534	61,981	85,770	--	--	--	--	--	--	--	--	
	64	22	20	21	1	--	--	--	--	--	--	
40 - 44	79,892	79,270	74,890	85,505	\$75,718	--	--	--	--	--	--	
	82	20	14	35	8	4	1	--	--	--	--	
45 - 49	87,293	81,584	96,883	85,141	83,827	\$101,796	\$112,296	--	--	--	--	
	128	17	31	43	17	17	3	--	--	--	--	
50 - 54	90,399	88,804	84,921	93,553	84,973	97,749	99,918	--	--	--	--	
	155	21	19	40	25	23	8	19	--	--	--	
55 - 59	89,171	79,021	91,005	95,654	84,715	98,512	101,284	\$74,359	--	--	--	
	136	14	22	37	13	22	5	15	8	--	--	
60 - 64	94,149	79,081	88,443	100,231	95,321	101,632	101,618	95,678	\$78,069	--	--	
	64	6	12	22	5	6	3	3	5	2	2	
65 - 69	93,710	72,141	85,212	91,254	104,137	81,594	171,025	121,494	101,262	\$70,167	--	
	11	1	2	2	3	2	--	--	--	1	1	
70 & over	89,625	41,904	86,851	84,843	70,985	166,207	--	--	--	55,211	--	
	2	1	--	1	--	--	--	--	--	--	--	
Total	52,178	24,961	--	79,396	--	--	--	--	--	--	--	
	713	144	146	204	72	74	20	37	13	3	3	
	\$87,759	\$75,068	\$85,510	\$92,262	\$87,244	\$99,900	\$112,175	\$86,823	\$86,989	\$65,182	--	

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

**EXHIBIT B (continued)
Members in Active Service and Projected Compensation as of December 31, 2011
By Age and Years of Service**

iii. General Tier 3 Enhanced

Age	Total	Years of Service										40 & over
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39			
Under 25	43	43	--	--	--	--	--	--	--	--	--	
25 - 29	\$41,808	\$41,808	--	--	--	--	--	--	--	--	--	
	333	278	54	1	--	--	--	--	--	--	--	
30 - 34	50,580	48,713	\$59,979	\$61,928	--	--	--	--	--	--	--	
	653	383	216	54	--	--	--	--	--	--	--	
35 - 39	63,121	59,498	68,899	65,708	--	--	--	--	--	--	--	
	748	305	270	164	9	--	--	--	--	--	--	
40 - 44	69,642	62,412	76,936	70,947	\$72,097	--	--	--	--	--	--	
	893	265	238	288	66	34	2	--	--	--	--	
45 - 49	72,409	65,098	73,175	78,256	75,170	\$69,129	\$72,508	--	--	--	--	
	1,061	220	246	290	139	128	35	3	--	--	--	
50 - 54	73,776	59,612	67,335	75,132	85,744	93,121	78,219	\$77,682	--	--	--	
	1,036	213	227	240	105	158	65	28	--	--	--	
55 - 59	72,415	60,934	70,166	70,718	80,326	85,006	81,270	71,241	--	--	--	
	939	171	185	249	114	125	71	23	1	--	--	
60 - 64	75,135	61,767	66,694	77,200	84,012	86,236	87,453	78,362	\$59,763	--	--	
	579	99	146	145	84	67	29	6	3	--	--	
65 - 69	73,853	66,690	71,224	74,548	76,948	76,489	85,471	106,071	82,355	--	--	
	148	19	45	47	13	15	7	2	--	--	--	
70 & over	68,402	62,697	62,576	65,916	83,810	74,367	79,459	128,474	--	--	--	
	24	2	6	8	1	6	1	--	--	--	--	
Total	63,929	131,966	41,297	69,603	53,883	61,084	45,371	--	--	--	--	
	6,457	1,998	1,633	1,486	531	533	210	62	4	--	--	
	\$70,448	\$59,623	\$70,179	\$74,180	\$81,256	\$84,591	\$83,118	\$79,411	\$76,707	--	--	

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

EXHIBIT B (continued)
Members in Active Service and Projected Compensation as of December 31, 2011
By Age and Years of Service

iv. Safety Tier A Non-Enhanced

Age	Total	Years of Service							
		0-4	5-9	10-14	15-19	20-24	25-29	30 & over	
Under 25	--	--	--	--	--	--	--	--	--
25 - 29	--	--	--	--	--	--	--	--	--
30 - 34	--	--	--	--	--	--	--	--	--
35 - 39	3	--	1	2	--	--	--	--	--
	\$111,433	--	\$111,004	\$111,648	--	--	--	--	--
40 - 44	3	--	--	1	--	2	--	--	--
	120,452	--	--	120,712	--	\$120,322	--	--	--
45 - 49	3	--	--	--	--	3	--	--	--
	115,275	--	--	--	--	115,275	--	--	--
50 - 54	6	1	--	--	2	--	3	--	--
	133,797	\$183,888	--	--	\$124,774	--	\$123,114	--	--
55 - 59	1	--	--	--	--	--	--	1	--
	132,602	--	--	--	--	--	--	\$132,602	--
60 - 64	--	--	--	--	--	--	--	--	--
65 & over	--	--	--	--	--	--	--	--	--
Total	16	1	1	3	2	5	3	1	--
	\$123,554	\$183,888	\$111,004	\$114,669	\$124,774	\$117,293	\$123,114	\$132,602	--

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

EXHIBIT B (continued)

**Members in Active Service and Projected Compensation as of December 31, 2011
By Age and Years of Service**

v. Safety Tier A Enhanced

Age	Total	Years of Service										30-34	35-39	40 & over
		0-4	5-9	10-14	15-19	20-24	25-29							
Under 25	5	5	--	--	--	--	--	--	--	--	--	--	--	--
25 - 29	\$75,040	\$75,040	--	--	--	--	--	--	--	--	--	--	--	--
	91	71	20	--	--	--	--	--	--	--	--	--	--	--
30 - 34	89,950	86,515	\$102,143	--	--	--	--	--	--	--	--	--	--	--
	176	72	86	18	--	--	--	--	--	--	--	--	--	--
35 - 39	96,679	90,516	100,710	\$102,074	--	--	--	--	--	--	--	--	--	--
	256	23	122	108	3	--	--	--	--	--	--	--	--	--
40 - 44	97,814	89,065	99,842	97,481	\$94,349	--	--	--	--	--	--	--	--	--
	309	25	73	126	55	30	--	--	--	--	--	--	--	--
45 - 49	105,196	94,087	106,298	101,776	106,240	\$124,222	--	--	--	--	--	--	--	--
	279	9	35	65	46	106	18	--	--	--	--	--	--	--
50 - 54	115,424	112,178	103,883	105,220	111,943	124,626	\$131,047	--	--	--	--	--	--	--
	114	6	18	25	19	25	18	3	--	--	--	--	--	--
55 - 59	117,000	114,275	102,744	98,732	136,177	120,078	132,718	\$118,806	--	--	--	--	--	--
	48	7	14	9	5	4	5	4	--	--	--	--	--	--
60 - 64	112,184	104,060	110,840	100,926	102,802	128,857	128,162	131,522	--	--	--	--	--	--
	16	2	6	3	2	1	1	1	--	--	--	--	--	--
65 - 69	98,101	103,996	95,743	105,282	89,546	79,541	81,246	131,445	--	--	--	--	--	--
	4	--	--	3	--	1	--	--	--	--	--	--	--	--
70 & over	91,323	--	--	87,385	--	103,137	--	--	--	--	--	--	--	--
	1	1	--	--	--	--	--	--	--	--	--	--	--	--
Total	82,662	82,662	--	--	--	--	--	--	--	--	--	--	--	--
	1,299	221	374	357	130	167	42	8	--	--	--	--	--	--
	\$104,746	\$91,176	\$102,288	\$100,793	\$111,970	\$123,575	\$130,234	\$126,744	--	--	--	--	--	--

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

**EXHIBIT B (continued)
Members in Active Service and Projected Compensation as of December 31, 2011
By Age and Years of Service**

vi. Safety Tier C Enhanced

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	18	18	--	--	--	--	--	--	--	--	--
	\$59,208	\$59,208	--	--	--	--	--	--	--	--	--
25 - 29	44	44	--	--	--	--	--	--	--	--	--
	73,682	73,682	--	--	--	--	--	--	--	--	--
30 - 34	29	29	--	--	--	--	--	--	--	--	--
	79,340	79,340	--	--	--	--	--	--	--	--	--
35 - 39	21	21	--	--	--	--	--	--	--	--	--
	84,238	84,238	--	--	--	--	--	--	--	--	--
40 - 44	10	10	--	--	--	--	--	--	--	--	--
	86,613	86,613	--	--	--	--	--	--	--	--	--
45 - 49	4	4	--	--	--	--	--	--	--	--	--
	112,119	112,119	--	--	--	--	--	--	--	--	--
50 - 54	2	2	--	--	--	--	--	--	--	--	--
	92,873	92,874	--	--	--	--	--	--	--	--	--
55 - 59	3	3	--	--	--	--	--	--	--	--	--
	86,786	86,786	--	--	--	--	--	--	--	--	--
60 - 64	--	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--	--
65 & over	--	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--	--
Total	131	131	--	--	--	--	--	--	--	--	--
	\$77,392	\$77,392	--	--	--	--	--	--	--	--	--

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

EXHIBIT C

Average Monthly Benefit and Membership Distribution of Retired Members and Beneficiaries

i. General Tier 1 as of December 31, 2011

Age	Total	Years of Retirement										40 & over
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over		
Under 25	2	1	--	--	1	--	--	--	--	--	--	--
25 - 29	\$624	\$877	--	--	\$371	--	--	--	--	--	--	--
	5	2	--	1	2	--	--	--	--	--	--	--
30 - 34	733	877	--	\$1,166	371	--	--	--	--	--	--	--
	4	1	1	--	2	--	--	--	--	--	--	--
35 - 39	820	1,631	\$572	--	539	--	--	--	--	--	--	--
	4	--	1	--	1	1	1	--	--	--	--	--
40 - 44	1,081	--	2,089	--	509	\$873	\$854	--	--	--	--	--
	5	--	--	--	4	1	--	--	--	--	--	--
45 - 49	966	--	--	--	987	879	--	--	--	--	--	--
	13	1	2	3	5	2	--	--	--	--	--	--
50 - 54	1,199	1,865	941	1,173	1,417	615	--	--	--	--	--	--
	65	42	9	5	5	2	2	--	--	--	--	--
55 - 59	2,212	2,433	2,058	2,134	1,107	2,585	839	--	--	--	--	--
	265	174	51	13	13	4	5	2	3	--	--	--
60 - 64	3,507	4,378	1,798	1,754	2,721	1,648	1,532	\$1,082	\$385	--	--	--
	560	205	206	97	21	11	9	6	5	--	--	--
65 - 69	3,756	5,100	3,706	2,003	2,315	2,045	1,486	1,877	937	--	--	--
	650	89	260	168	82	21	17	9	4	--	--	--
70 - 74	3,792	4,809	4,811	3,196	1,699	1,997	2,643	1,935	1,348	--	--	--
	495	8	84	190	105	72	20	11	2	3	--	--
75 - 80	3,333	2,583	4,858	4,124	2,383	1,576	2,074	2,327	1,241	\$1,506	--	--
	508	1	13	116	177	108	74	13	6	--	--	--
80 - 84	2,955	5,250	2,999	4,238	3,391	2,048	1,367	2,449	1,790	--	--	--
	502	--	4	20	111	149	117	74	17	10	--	--
85 - 89	2,554	--	2,329	2,503	3,659	2,931	1,875	1,510	1,977	1,490	--	--
	396	--	1	7	18	98	135	109	27	1	--	--
90 & over	2,347	--	12,852	3,870	2,499	2,906	2,243	2,003	1,311	3,056	--	--
	264	--	1	1	3	17	60	104	60	18	--	--
Total	1,990	--	1,081	1,244	2,979	2,254	1,976	2,041	1,999	1,389	--	--
	3,738	524	633	621	550	486	440	328	124	32	--	--
	\$3,093	\$4,522	\$4,107	\$3,419	\$2,824	\$2,415	\$1,936	\$1,923	\$1,721	\$1,483	--	--

Note: Total retired benefit \$11,561,950, average age 73.6 and average years retired 16.9.

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

EXHIBIT C (continued)

Average Monthly Benefit and Membership Distribution of Retired Members and Beneficiaries

ii. General Tier 2 as of December 31, 2011

Years of Retirement											
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over	
Under 25	2	--	--	--	2	--	--	--	--	--	
	\$1,253	--	--	--	\$1,253	--	--	--	--	--	
25 - 29	2	--	--	2	--	--	--	--	--	--	
	703	--	--	\$703	--	--	--	--	--	--	
30 - 34	--	--	--	--	--	--	--	--	--	--	
	--	--	--	--	--	--	--	--	--	--	
35 - 39	8	--	1	5	1	1	--	--	--	--	
	730	--	\$1,151	549	1,544	\$402	--	--	--	--	
40 - 44	9	--	--	4	2	3	--	--	--	--	
	926	--	--	1,200	788	653	--	--	--	--	
45 - 49	3	--	1	--	1	1	--	--	--	--	
	1,216	--	547	--	1,414	1,688	--	--	--	--	
50 - 54	16	9	2	3	2	-	--	--	--	--	
	890	\$201	1,229	3,036	430	-	--	--	--	--	
55 - 59	41	12	19	3	6	1	--	--	--	--	
	724	658	393	1,334	1,386	1,995	--	--	--	--	
60 - 64	83	20	23	31	5	4	--	--	--	--	
	838	759	761	798	1,389	1,289	--	--	--	--	
65 - 69	110	20	14	47	24	3	2	--	--	--	
	774	542	671	891	724	1,216	\$976	--	--	--	
70 - 74	96	4	17	38	32	5	--	--	--	--	
	1,054	315	704	1,300	955	1,590	--	--	--	--	
75 - 80	110	2	1	57	35	12	3	--	--	--	
	1,007	1,605	723	1,075	779	1,155	1,470	--	--	--	
80 - 84	66	--	2	15	38	6	4	1	--	--	
	877	--	431	722	976	1,077	486	\$661	--	--	
85 - 89	23	--	--	4	8	11	--	--	--	--	
	823	--	--	919	496	1,026	--	--	--	--	
90 & over	6	--	--	--	2	4	--	--	--	--	
	400	--	--	--	580	311	--	--	--	--	
Total	575	67	80	209	158	51	9	1	--	--	
	\$889	\$600	\$651	\$1,023	\$ 890	\$1,091	\$923	\$661	--	--	

Note: Total retired benefit \$511,388, average age 70.0 and average years retired 13.2.

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

EXHIBIT C (continued)

Average Monthly Benefit and Membership Distribution of Retired Members and Beneficiaries

iii. General Tier 3 as of December 31, 2011

Years of Retirement											
Age	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over	
Under 25	4	2	2	--	--	--	--	--	--	--	
	\$1,190	\$958	\$1,422	--	--	--	--	--	--	--	
25 - 29	3	--	1	1	1	--	--	--	--	--	
	962	--	572	\$1,652	\$660	--	--	--	--	--	
30 - 34	2	--	2	--	--	--	--	--	--	--	
	564	--	564	--	--	--	--	--	--	--	
35 - 39	3	1	1	1	--	--	--	--	--	--	
	1,425	2,197	1,350	727	--	--	--	--	--	--	
40 - 44	7	1	3	3	--	--	--	--	--	--	
	946	902	855	1,052	--	--	--	--	--	--	
45 - 49	16	10	4	2	--	--	--	--	--	--	
	2,068	2,584	1,142	1,339	--	--	--	--	--	--	
50 - 54	99	93	6	-	--	--	--	--	--	--	
	1,610	1,578	2,104	-	--	--	--	--	--	--	
55 - 59	307	226	76	5	--	--	--	--	--	--	
	2,435	2,827	1,288	2,144	--	--	--	--	--	--	
60 - 64	540	373	141	26	--	--	--	--	--	--	
	2,650	2,883	2,328	1,057	--	--	--	--	--	--	
65 - 69	542	282	217	42	--	1	--	--	--	--	
	2,508	2,905	2,240	1,252	--	\$1,746	--	--	--	--	
70 - 74	267	86	126	54	--	1	--	--	--	--	
	1,912	2,061	2,072	1,311	--	1,289	--	--	--	--	
75 - 80	88	22	42	24	--	--	--	--	--	--	
	1,479	1,918	1,280	1,425	--	--	--	--	--	--	
80 - 84	13	4	3	6	--	--	--	--	--	--	
	1,658	2,382	1,400	1,305	--	--	--	--	--	--	
85 - 89	4	2	2	--	--	--	--	--	--	--	
	3,178	2,453	3,902	--	--	--	--	--	--	--	
90 & over	--	--	--	--	--	--	--	--	--	--	
	--	--	--	--	--	--	--	--	--	--	
Total	1,895	1,102	626	164	1	2	--	--	--	--	
	\$2,335	\$2,672	\$2,020	\$1,291	\$660	1,518	--	--	--	--	
Note: Total retired benefit \$4,425,095, average age 64.5 and average years retired 4.6.											

Note: Total retired benefit \$4,425,095, average age 64.5 and average years retired 4.6.

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

EXHIBIT C (continued)
Average Monthly Benefit and Membership Distribution of Retired Members and Beneficiaries
iv. Safety Tier A as of December 31, 2011

Age	Total	Years of Retirement										40 & over
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	35-39	40 & over	
Under 25	4	--	4	--	--	--	--	--	--	--	--	--
25 - 29	\$1,103	--	\$1,103	--	--	--	--	--	--	--	--	--
30 - 34	--	--	--	--	--	--	--	--	--	--	--	--
35 - 39	6	4	--	--	2	--	--	--	--	--	--	--
40 - 44	2,509	\$3,237	--	--	\$1,053	--	--	--	--	--	--	--
45 - 49	16	9	6	--	--	1	--	--	--	--	--	--
50 - 54	3,237	3,323	3,519	--	--	\$764	--	--	--	--	--	--
55 - 59	28	12	9	5	1	1	--	--	--	--	--	--
60 - 64	3,373	3,950	3,342	\$3,091	742	764	--	--	--	--	--	--
65 - 69	78	40	15	15	6	2	--	--	--	--	--	--
70 - 74	4,588	5,812	3,658	3,506	2,693	875	--	--	--	--	--	--
75 - 79	231	174	25	17	10	4	1	--	--	--	--	--
80 - 84	6,435	7,324	3,865	3,850	3,358	3,369	\$3,006	--	--	--	--	--
85 - 89	282	103	134	22	15	6	2	--	--	--	--	--
90 & over	6,847	7,936	7,225	3,295	2,954	3,927	2,376	--	--	--	--	--
Total	368	60	188	53	33	16	8	8	1	1	1	1
	6,390	6,878	8,129	3,858	3,266	3,187	2,466	\$3,193	\$787	\$1,217	\$1,217	\$1,217
	343	24	96	134	36	19	23	9	1	1	1	1
	5,694	4,014	7,104	6,492	3,914	3,546	2,627	3,170	4,600	3,002	3,002	3,002
	201	10	7	50	66	36	15	8	7	2	2	2
	5,575	2,849	4,610	7,145	6,613	4,439	3,489	2,984	3,391	3,207	3,207	3,207
	131	1	2	7	38	40	26	11	4	2	2	2
	5,040	3,617	1,902	5,417	6,044	5,791	3,800	3,609	2,597	2,377	2,377	2,377
	110	--	--	1	8	15	42	25	16	3	3	3
	4,304	--	--	462	5,001	4,685	4,782	3,836	3,548	3,067	3,067	3,067
	61	--	--	--	--	1	8	25	15	12	12	12
	4,315	--	--	--	--	3,321	6,086	4,729	3,880	2,898	2,898	2,898
	18	--	--	--	--	1	--	1	11	5	5	5
	4,152	--	--	--	--	2,306	--	5,751	4,510	3,413	3,413	3,413
Total	1,877	437	486	304	215	142	125	87	55	26	26	26
	\$5,774	\$6,763	\$7,040	\$5,513	\$4,892	\$4,409	\$3,909	\$3,880	\$3,711	\$2,940	\$2,940	\$2,940

Note: Total retired benefit \$10,837,580, average age 64.5 and average years retired 13.2.

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

EXHIBIT D

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

	Active Participants	Vested Former Participants⁽¹⁾	Pensioners	Disableds	Beneficiaries	Total
Number as of December 31, 2010	8,811	2,231	5,469	921	1,169	18,601
New participants	609	58	0	0	92	759
Terminations – with vested rights ⁽¹⁾	-140	140	0	0	0	0
Contributions Refunds	-98	-85	0	0	0	-183
Retirements	-581	-60	641	0	0	0
New disabilities	-18	-2	-5	25	0	0
Return to work	64	-64	0	0	0	0
Died with or without beneficiary	-19	-4	-145	-25	-41	-234
Data adjustments	<u>1</u>	<u>0</u>	<u>0</u>	<u>-1</u>	<u>-15</u>	<u>-15</u>
Number as of December 31, 2011	8,629	2,214	5,960	920	1,205	18,928

⁽¹⁾ Includes 834 nonvested terminated members.

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

EXHIBIT E

Summary Statement of Income and Expenses on an Actuarial Value Basis

	Year Ended December 31, 2011	Year Ended December 31, 2010
Contribution income:		
Employer contributions	\$200,388,994	\$183,950,930
Employee contributions	<u>61,575,376</u>	<u>64,330,484</u>
Net contribution income	\$261,964,370	\$248,281,414
Investment income:		
Interest, dividends and other income	\$143,174,944	\$140,638,423
Adjustment toward market value ⁽¹⁾	41,866,888	(9,668,021)
Less investment and administrative fees	<u>(36,983,284)</u>	<u>(35,051,489)</u>
Net investment income	<u>148,058,548</u>	<u>95,918,913</u>
Total income available for benefits	\$410,022,918	\$344,200,327
Less benefit payments:		
Benefits paid	\$(320,297,817)	\$(288,969,175)
Refunds of contributions	(3,909,122)	(2,647,011)
Adjustments/transfers	<u>(667,440)</u>	<u>(874,649)</u>
Net benefit payments	\$(324,874,379)	\$(292,490,835)
Change in reserve for future benefits	\$85,148,539	\$51,709,492

⁽¹⁾ Equals the "non-cash" earnings on investments implicitly included in the Actuarial Value of Assets.

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

EXHIBIT F

Summary Statement of Assets

	Year Ended December 31, 2011	Year Ended December 31, 2010
Cash equivalents	\$538,622,465	\$481,921,090
Other Assets	1,712,327	1,927,508
Accounts receivable:		
Investment trades	\$380,827,659	\$477,211,226
Investment income	15,247,814	13,355,196
Employee and employer contributions	7,069,451	6,930,127
Additional contributions ⁽¹⁾	<u>22,092,843</u>	<u>23,124,759</u>
Total accounts receivable	425,237,767	520,621,308
Investments:		
Stocks	\$2,185,882,788	\$2,467,400,407
Bonds	1,826,834,166	1,517,912,283
Real estate	588,704,762	566,632,791
Alternative investments	<u>367,414,250</u>	<u>299,279,903</u>
Total investments at market value	<u>4,968,835,966</u>	<u>4,851,225,384</u>
Total assets	\$5,934,408,525	\$5,855,695,290
Less accounts payable:		
Investment trades	\$(482,507,139)	\$(467,870,346)
Security lending	(289,850,840)	(269,790,009)
Employer contributions unearned	(95,371,345)	(77,584,103)
Other	<u>(14,389,743)</u>	<u>(13,293,633)</u>
Total accounts payable	\$(882,119,067)	\$(828,538,091)
Net assets at market value	\$5,052,289,458	\$5,027,157,199
Net assets at actuarial value	\$5,441,119,691	\$5,355,971,152
Net assets at valuation value	\$5,426,719,066	\$5,341,821,711

⁽¹⁾ Equals the sum of additional contribution receivables for the final Paulson Settlement.

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

EXHIBIT G

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 are projected/anticipated to 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.

Assets

1. Total valuation value of assets
2. Present value of future contributions by members
3. Present value of future employer contributions for:
 - (a) entry age normal cost
 - (b) unfunded actuarial accrued liability
4. Total actuarial assets

Basic	COLA	Total
\$3,492,909,590	\$1,933,809,476	\$5,426,719,066
\$348,369,081	\$195,949,165	\$544,318,246
\$657,898,987	\$186,752,523	\$844,651,510
\$1,008,729,572	\$479,863,011	\$1,488,592,583
\$5,507,907,230	\$2,796,374,175	\$8,304,281,405

Liabilities

5. Present value of benefits for retirees and beneficiaries
6. Present value of benefits for vested terminated members⁽¹⁾
7. Present value of benefits for active members
8. Total present value of benefits

\$2,588,336,304	\$1,679,865,348	\$4,268,201,652
\$131,777,039	\$50,226,896	\$182,003,935
\$2,787,793,887	\$1,066,281,931	\$3,854,075,818
\$5,507,907,230	\$2,796,374,175	\$8,304,281,405

⁽¹⁾ Includes nonvested terminated members.

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

EXHIBIT H

Summary of Total Allocated Reserves

Reserves	December 31, 2011	December 31, 2010
Member Deposits ⁽¹⁾	\$619,225,584	\$553,112,184
Member Cost of Living ⁽¹⁾	291,620,624	250,438,850
Employer Advance ⁽¹⁾	2,066,274,507	1,777,531,388
Employer Cost of Living ⁽¹⁾	1,289,966,298	1,144,168,438
Retired Members ⁽¹⁾	1,496,424,250	1,634,130,448
Retired Cost of Living ⁽¹⁾	722,344,492	739,890,913
Smoothed Market Value Valuation ⁽¹⁾	250,369,816	231,982,586
Dollar Power Cost of Living Supplement Pre-Funding ⁽¹⁾	14,280,696	14,605,106
Post Retirement Death Benefit ⁽²⁾	14,400,625	14,149,441
Statutory Contingency (one percent) ⁽²⁾	0	0
Additional One Percent Contingency Designation ⁽²⁾	0	0
Contra Tracking Account ⁽¹⁾	(1,323,787,201)	(1,004,038,202)
Total Allocated Reserves	\$5,441,119,691	\$5,355,971,152
Market Stabilization Account	(388,830,233)	(328,813,953)
Net Market Value	\$5,052,289,458	\$5,027,157,199

⁽¹⁾ Included in valuation value of assets.

⁽²⁾ Not included in valuation value of assets.

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

EXHIBIT I

Development of Unfunded Actuarial Accrued Liability

	Year Ended December 31, 2011
1. Unfunded actuarial accrued liability at beginning of year	\$1,312,215,090
2. Gross Normal cost at middle of year	192,037,157
3. Expected employer and member contributions	(307,633,547)
4. Interest (whole year on (1) plus half year on (2) - (3))	97,217,309
5. Expected unfunded actuarial accrued liability at end of year	<u>\$1,293,836,009</u>
6. Actuarial (gain)/loss due to all changes:	
a. Investment return	\$264,596,532
b. Salary increases	(77,126,519)
c. Actual contributions less than expected	47,405,838
d. Lower than expected COLA increases	(52,339,225)
e. Other experience (gain)/loss ⁽¹⁾	<u>12,219,948</u>
f. Total changes	<u>\$194,756,574</u>
7. Unfunded actuarial accrued liability at end of year	<u><u>\$1,488,592,583</u></u>

⁽¹⁾ Other differences in actual versus expected experience including (but not limited to) mortality, disability, withdrawal, retirement and terminal pay experience.

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

EXHIBIT J
Table of Amortization Bases

	Date Established	Source	Initial Amount	Outstanding Balance	Years Remaining	Annual Payment⁽¹⁾
General						
Cost Groups #1 and #2						
County and Small Districts	December 31, 2007	Restart of Amortization	\$789,616,678	\$727,493,528	11	\$77,584,913
(Tiers 1 and 3)	December 31, 2008	Actuarial (Gain)/Loss	80,496,792	79,519,738	15	6,612,432
	December 31, 2009	Actuarial (Gain)/Loss	165,997,327	165,236,939	16	13,077,546
	December 31, 2009	Assumption Change ⁽²⁾	39,793,000	39,610,719	16	3,134,959
	December 31, 2009	Depooling Implementation	-75,134,625	-74,790,454	16	-5,919,231
	December 31, 2010	Actuarial (Gain)/Loss	153,957,206	153,863,744	17	11,634,537
	December 31, 2011	Actuarial (Gain)/Loss	95,298,919	95,298,919	18	6,908,138
Subtotal				<u>\$1,186,233,133</u>		<u>\$113,033,293</u>
Cost Group #3						
Central Contra Costa	December 31, 2007	Restart of Amortization	\$36,185,000	\$33,338,142	11	\$3,555,409
Sanitary District	December 31, 2008	Actuarial (Gain)/Loss	3,709,835	3,664,806	15	304,745
	December 31, 2009	Actuarial (Gain)/Loss	10,118,261	10,071,912	16	797,133
	December 31, 2009	Assumption Change ⁽²⁾	2,003,000	1,993,825	16	157,800
	December 31, 2009	Depooling Implementation	20,037,235	19,945,450	16	1,578,567
	December 31, 2010	Actuarial (Gain)/Loss	18,178,489	18,167,454	17	1,373,747
	December 31, 2010	Assumption Change ⁽³⁾	11,479,648	11,472,679	17	867,516
	December 31, 2011	Actuarial (Gain)/Loss	10,514,535	10,514,535	18	762,190
Subtotal				<u>\$109,168,803</u>		<u>\$9,397,108</u>

Note: Results may not add due to rounding.

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

		Date Established	Source	Initial Amount	Outstanding Balance	Years Remaining	Annual Payment ⁽¹⁾
General							
Cost Group #4							
Contra Costa Housing		December 31, 2007	Restart of Amortization	\$7,770,000	\$7,158,695	11	\$763,452
Authority		December 31, 2008	Actuarial (Gain)/Loss	1,573,513	1,554,414	15	129,257
		December 31, 2009	Actuarial (Gain)/Loss	1,277,079	1,271,229	16	100,610
		December 31, 2009	Assumption Change ⁽²⁾	425,000	423,053	16	33,482
		December 31, 2009	Depooling Implementation	-189,275	-188,408	16	-14,911
		December 31, 2010	Actuarial (Gain)/Loss	619,697	619,321	17	46,830
		December 31, 2010	Assumption Change ⁽³⁾	-920,656	-920,097	17	-69,574
		December 31, 2011	Actuarial (Gain)/Loss	1,059,328	1,059,328	18	76,790
Subtotal					\$10,977,535		\$1,065,937
Cost Group #5							
Contra Costa County Fire		December 31, 2007	Restart of Amortization	-\$1,011,000	-\$931,460	11	-\$99,337
Protection District		December 31, 2008	Actuarial (Gain)/Loss	45,963	45,405	15	3,776
		December 31, 2009	Actuarial (Gain)/Loss	1,614,180	1,606,786	16	127,168
		December 31, 2009	Assumption Change ⁽²⁾	336,000	334,461	16	26,471
		December 31, 2009	Depooling Implementation	2,142,538	2,132,724	16	168,793
		December 31, 2010	Actuarial (Gain)/Loss	2,722,306	2,720,654	17	205,725
		December 31, 2011	Actuarial (Gain)/Loss	1,350,620	1,350,620	18	97,905
Subtotal					\$7,259,189		\$530,499

Note: Results may not add due to rounding.

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

	Date Established	Source	Initial Amount	Outstanding Balance	Years Remaining	Annual Payment ⁽¹⁾
General						
Cost Group #6						
Small Districts	December 31, 2007	Restart of Amortization	\$1,028,000	\$947,122	11	\$101,008
(Tier 1 Non-enhanced)	December 31, 2008	Actuarial (Gain)/Loss	61,240	60,497	15	5,031
	December 31, 2009	Actuarial (Gain)/Loss	385,148	383,384	16	30,343
	December 31, 2009	Assumption Change ⁽²⁾	126,000	125,423	16	9,926
	December 31, 2009	Depooling Implementation	-1,028,581	-1,023,869	16	-81,033
	December 31, 2010	Actuarial (Gain)/Loss	194,488	194,369	17	14,697
	December 31, 2011	Actuarial (Gain)/Loss	-137,086	-137,086	18	-9,937
Subtotal				<u>\$549,839</u>		<u>\$70,034</u>
Safety						
Cost Group #7 and #9						
County Tiers A and C	December 31, 2007	Restart of Amortization	\$129,233,744	\$119,066,270	11	\$12,698,046
	December 31, 2008	Actuarial (Gain)/Loss	25,934,594	25,619,805	15	2,130,405
	December 31, 2009	Actuarial (Gain)/Loss	55,813,557	55,557,890	16	4,397,085
	December 31, 2009	Assumption Change ⁽²⁾	11,213,000	11,161,636	16	883,379
	December 31, 2009	Depooling Implementation	24,145,656	24,035,051	16	1,902,235
	December 31, 2010	Actuarial (Gain)/Loss	57,993,092	57,957,887	17	4,382,535
	December 31, 2011	Actuarial (Gain)/Loss	45,765,799	45,765,799	18	3,317,524
Subtotal				<u>\$339,164,339</u>		<u>\$29,711,208</u>

Note: Results may not add due to rounding.

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

	Date Established	Source	Initial Amount	Outstanding Balance	Years Remaining	Annual Payment ⁽¹⁾
Safety						
Cost Group #8						
Contra Costa and East Fire	December 31, 2007	Restart of Amortization	\$124,138,710	\$114,372,088	11	\$12,197,426
Protection Districts	December 31, 2008	Actuarial (Gain)/Loss	6,780,436	6,698,137	15	556,981
	December 31, 2009	Actuarial (Gain)/Loss	27,018,706	26,894,941	16	2,128,579
	December 31, 2009	Assumption Change ⁽²⁾	4,945,000	4,922,348	16	389,575
	December 31, 2009	Depooling Implementation	47,818,666	47,599,622	16	3,767,234
	December 31, 2010	Actuarial (Gain)/Loss	38,165,445	38,142,276	17	2,884,160
	December 31, 2010	Assumption Change ⁽³⁾	-1,599,051	-1,598,080	17	-120,840
	December 31, 2011	Actuarial (Gain)/Loss	26,533,166	26,533,166	18	1,923,367
Subtotal				\$263,564,498		\$23,726,482
Cost Group #10						
Moraga-Orinda Fire District	December 31, 2007	Restart of Amortization	-\$2,591,000	-\$2,387,153	11	-\$254,582
	December 31, 2008	Actuarial (Gain)/Loss	2,002,150	1,977,849	15	164,467
	December 31, 2009	Actuarial (Gain)/Loss	5,671,684	5,645,704	16	446,825
	December 31, 2009	Assumption Change ⁽²⁾	1,012,000	1,007,364	16	79,727
	December 31, 2009	Depooling Implementation	4,873,631	4,851,306	16	383,953
	December 31, 2010	Actuarial (Gain)/Loss	5,334,964	5,331,725	17	403,163
	December 31, 2010	Assumption Change ⁽³⁾	806,018	805,529	17	60,911
	December 31, 2011	Actuarial (Gain)/Loss	6,791,005	6,791,005	18	492,274
Subtotal				\$24,023,329		\$1,776,737

Note: Results may not add due to rounding.

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

	Date Established	Source	Initial Amount	Outstanding Balance	Years Remaining	Annual Payment ⁽¹⁾
Safety						
Cost Group #11						
San Ramon Valley	December 31, 2007	Restart of Amortization	\$58,766,000	\$54,142,581	11	\$5,774,137
Fire District	December 31, 2008	Actuarial (Gain)/Loss	10,216,694	10,092,686	15	839,253
	December 31, 2009	Actuarial (Gain)/Loss	9,262,105	9,219,678	16	729,684
	December 31, 2009	Assumption Change ⁽²⁾	2,453,000	2,441,763	16	193,251
	December 31, 2009	Depooling Implementation	-20,174,500	-20,082,086	16	-1,589,381
	December 31, 2010	Actuarial (Gain)/Loss	6,585,812	6,581,814	17	497,689
	December 31, 2010	Assumption Change ⁽³⁾	5,093,420	5,090,328	17	384,909
	December 31, 2011	Actuarial (Gain)/Loss	5,513,071	5,513,071	18	399,638
Subtotal				\$72,999,835		\$7,229,182
Cost Group #12						
Rodeo-Hercules Fire	December 31, 2007	Restart of Amortization	\$3,960,000	\$3,648,447	11	\$389,095
Protection District	December 31, 2008	Actuarial (Gain)/Loss	957,150	945,532	15	78,625
	December 31, 2009	Actuarial (Gain)/Loss	2,872,360	2,859,203	16	226,289
	December 31, 2009	Assumption Change ⁽²⁾	1,154,000	1,148,714	16	90,914
	December 31, 2009	Depooling Implementation	-1,809,374	-1,801,086	16	-142,545
	December 31, 2010	Actuarial (Gain)/Loss	1,502,503	1,501,591	17	113,544
	December 31, 2010	Assumption Change ⁽³⁾	662,085	661,683	17	50,034
	December 31, 2011	Actuarial (Gain)/Loss	2,067,217	2,067,217	18	149,851
Subtotal				\$11,031,301		\$955,807

Note: Results may not add due to rounding.

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

	Date Established	Source	Initial Amount	Outstanding Balance	Years Remaining	Annual Payment ⁽¹⁾
Both General and Safety						
Special Adjustments⁽⁴⁾						
	December 31, 2007	County General POBs	-\$453,973,319	-\$418,255,515	11	-\$44,605,644
Subtotal	December 31, 2007	Moraga General POBs	-701,412	-646,226	11	-68,918
	December 31, 2007	CCCFFPD Safety POBs	-127,509,711	<u>-117,477,477</u>	11	<u>-12,528,606</u>
Subtotal				-\$536,379,218		-\$57,203,168
Grand Total				\$1,488,592,583		\$130,293,119

⁽¹⁾ As of beginning of year. The annual payment amounts shown for the Special Adjustments represent the credit allocated to the employer to reflect the receipt of the proceeds for Pension Obligation Bonds (POBs) or any other special contributions. These adjustments serve to reduce the UAAL contribution rate for these employers. The cost of debt service associated with the POBs is not reflected in this report.

⁽²⁾ Changes in actuarial assumptions and methods from actuarial experience study.

⁽²⁾ The Board approved changes in actuarial assumptions. Terminal pay assumptions are now based on cost groups.

⁽⁴⁾ Includes remaining balance of POBs and any other special contributions made by the County (including Courts) or Moraga-Orinda Fire District that have been allocated to the County General cost groups or for Contra Costa Fire Protection District that have been allocated to their Safety cost group.

Note: Results may not add due to rounding.

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

EXHIBIT K

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 limit of \$160,000 indexed for inflation. That limit is \$200,000 for 2012. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They must generally be adjusted based on each participant's circumstances, for such things as age at retirement, form of benefits chosen and after tax contributions. Limits are also affected by the "grandfather" election under Section 415(b)(10).

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.

Contribution rates determined in this valuation have not been reduced for the Section 415 limitations. Actual limitations will result in actuarial gains as they occur.

EXHIBIT L

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

Normal Cost:

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

Actuarial Accrued Liability For Actives:

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

Actuarial Accrued Liability For Pensioners:

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

Unfunded Actuarial Accrued Liability:

The extent to which the actuarial accrued liability of the Plan exceeds the assets of the Plan.

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

Amortization of the Unfunded

Actuarial Accrued Liability: Payments made over a period of years equal in value to the Plan's unfunded 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 market gains and losses to avoid significant swings in the value of assets from one year to the next.

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

EXHIBIT I

Supplementary Information Required by GASB – Schedule of Employer Contributions

Plan Year Ended December 31	Annual Required Contributions	Actual Contributions	Percentage Contributed
2006	\$179,755,315	\$179,755,315 ⁽¹⁾	100.0%
2007	196,929,570	196,929,570	100.0%
2008	206,518,693	206,518,693	100.0%
2009	195,613,673	195,613,673	100.0%
2010	183,950,930	183,950,930	100.0%
2011	200,388,994	200,388,994	100.0%

⁽¹⁾ Excludes pension obligation bond proceeds of \$11,693,396.

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

EXHIBIT II

Supplementary Information Required by GASB – Schedule of Funding Progress

Actuarial Valuation Date	Valuation Value of Assets ⁽¹⁾ (a)	Actuarial Accrued Liability (AAL) ⁽²⁾ (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll [(b) - (a)] / (c)
12/31/2006	\$4,460,871,033	\$5,293,977,010	\$833,105,977	84.26%	\$653,953,163	127.40%
12/31/2007	5,016,136,535	5,581,048,225	564,911,690	89.88%	671,617,932	84.11%
12/31/2008	5,282,505,159	5,972,471,074	689,965,915	88.45%	704,947,668	97.87%
12/31/2009	5,290,114,102	6,314,787,187	1,024,673,085	83.77%	694,443,999	147.55%
12/31/2010	5,341,821,711	6,654,036,801	1,312,215,090	80.28%	687,443,206	190.88%
12/31/2011	5,426,719,066	6,915,311,649	1,488,592,583	78.47%	666,394,146	223.38%

(1) Excludes assets for non-valuation reserves.

(2) Excludes liabilities for non-valuation reserves.

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

EXHIBIT III

Supplementary Information Required by GASB

Valuation date	December 31, 2011
Actuarial cost method	Entry Age Normal Actuarial Cost Method
Amortization method	Level percent of payroll for total unfunded liability (4.25% payroll growth assumed)
Remaining amortization period	Remaining balance of December 31, 2007 UAAL is amortized over a fixed (decreasing or closed) period with 11 years remaining as of December 31, 2011. Any changes in UAAL after December 31, 2007 will be separately amortized over a fixed 18-year period effective with that valuation.
Asset valuation method	Market value of assets less unrecognized returns in each of the last nine semi-annual accounting periods. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized semi-annually over a five-year period. The Actuarial Value of Assets is reduced by the value of the non-valuation reserves and designations.
Actuarial assumptions:	
Investment rate of return	7.75%
Inflation rate	3.50%
Projected salary increases ⁽¹⁾	General: 5.00% to 13.25%; Safety: 5.00% to 13.75%
Cost of living adjustments	3% per year except for Tier 3 disability benefits and Tier 2 benefits that are valued as a 3.50% increase per year. Safety Tier C benefits are assumed to increase at 2% per year. All increases are contingent upon actual increases in CPI.
Plan membership:	
Retired members and beneficiaries receiving benefits	8,085
Terminated members entitled to, but not yet receiving benefits ⁽²⁾	2,214
Active members	<u>8,629</u>
Total	18,928

⁽¹⁾ Includes inflation at 3.50%, plus "across the board" salary increases of 0.75%, plus merit and promotional increases. See Exhibit IV for these increases. The average total assumed salary increase for active members in the December 31, 2011 valuation is 5.8%.

⁽²⁾ Includes 834 nonvested terminated members.

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

EXHIBIT IV

Actuarial Assumptions and Actuarial Cost Method

Post – Retirement Mortality Rates:

Healthy:

For General Members: RP-2000 Combined Healthy Mortality Table set back three years for males and set back two years for females.

For Safety Members: RP-2000 Combined Healthy Mortality Table set back three years for males and set back two years for females.

Disabled:

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

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

Beneficiaries:

Beneficiaries are assumed to have the same mortality as a General Member of the opposite sex who has taken a service (non-disability) retirement.

The mortality tables shown above were determined so as to reasonably reflect future mortality improvement, based on a review of mortality experience as of the measurement date.

Member Contribution Rates:

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

For Safety Members: RP-2000 Combined Healthy Mortality Table set back three years for males and set back two years for females weighted 85% male and 15% female.

Termination Rates Before Retirement:

Age	Rate (%)			
	Mortality			
	General		Safety	
	Male	Female	Male	Female
25	0.04	0.02	0.04	0.02
30	0.04	0.02	0.04	0.02
35	0.06	0.04	0.06	0.04
40	0.09	0.06	0.09	0.06
45	0.12	0.09	0.12	0.09
50	0.17	0.14	0.17	0.14
55	0.27	0.22	0.27	0.22
60	0.47	0.39	0.47	0.39
65	0.88	0.76	0.88	0.76

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

Termination Rates Before Retirement (continued):

Age	Rate (%)		
	General Tier 1 ⁽¹⁾	General Tier 3 ⁽²⁾	Safety ⁽³⁾
20	0.02	0.00	0.02
25	0.04	0.02	0.22
30	0.11	0.04	0.42
35	0.18	0.06	0.65
40	0.26	0.09	0.90
45	0.42	0.13	1.15
50	0.56	0.18	2.60
55	0.69	0.23	4.40
60	0.75	0.28	5.00
65	0.75	0.42	5.00
70	0.75	0.58	5.00

⁽¹⁾ 70% of General Tier 1 disabilities are assumed to be duty disabilities. The other 30% are assumed to be ordinary disabilities.

⁽²⁾ 25% of General Tier 3 disabilities are assumed to be duty disabilities. The other 75% are assumed to be ordinary disabilities.

⁽³⁾ 100% of Safety disabilities are assumed to be duty disabilities.

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

Termination Rates Before Retirement (continued):

Rate (%)		
Withdrawal (Less than Five Years of Service)		
Years of Service	General	Safety
0	15.00	11.00
1	9.00	7.00
2	9.00	5.00
3	6.00	4.00
4	5.00	4.00

Withdrawal (Five or More Years of Service) *		
Age	General	Safety
20	5.00	4.00
25	5.00	4.00
30	5.00	4.00
35	5.00	3.14
40	4.73	2.39
45	3.05	1.80
50	2.42	1.24
55	1.68	0.81
60	0.00	0.00

* The member is assumed to receive the greater of the member's contribution balance or a deferred retirement benefit. No withdrawal is assumed after a member is first assumed to retire.

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

Retirement Rates (Enhanced):

For those members covered under the enhanced benefit formulas the following rates apply:

Age	Rate (%)		
	General Tier 1	General Tier 3	Safety Tier A
45	0.00	0.00	2.00
46	0.00	0.00	2.00
47	0.00	0.00	2.00
48	0.00	0.00	2.00
49	0.00	0.00	10.00
50	4.00	4.00	25.00
51	4.00	3.00	17.00
52	4.00	3.00	20.00
53	5.00	3.00	20.00
54	10.00	5.00	20.00
55	15.00	10.00	30.00
56	15.00	10.00	25.00
57	17.00	10.00	25.00
58	20.00	10.00	30.00
59	20.00	10.00	30.00
60	20.00	15.00	40.00
61	30.00	17.00	40.00
62	30.00	25.00	40.00
63	30.00	25.00	40.00
64	30.00	27.00	40.00
65	35.00	35.00	100.00
66	35.00	35.00	100.00
67	35.00	35.00	100.00
68	35.00	35.00	100.00
69	35.00	35.00	100.00
70	100.00	40.00	100.00
71	100.00	40.00	100.00
72	100.00	40.00	100.00
73	100.00	40.00	100.00
74	100.00	40.00	100.00
75	100.00	100.00	100.00

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

Retirement Rates (Non-enhanced):

For those members not covered under the enhanced benefit formulas the following rates apply:

Age	Rate (%)	
	General Tier 1	Safety Tier A
50	3.00	1.00
51	3.00	1.00
52	3.00	1.00
53	3.00	1.00
54	3.00	1.00
55	10.00	2.00
56	10.00	2.00
57	10.00	3.00
58	10.00	4.00
59	10.00	20.00
60	25.00	17.00
61	15.00	17.00
62	40.00	18.00
63	25.00	20.00
64	30.00	100.00
65	40.00	100.00
66	35.00	100.00
67	35.00	100.00
68	35.00	100.00
69	35.00	100.00
70	100.00	100.00

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

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

For deferred vested benefits, we make the following retirement assumption:

General: Age 58
Safety: Age 55

We assume that 40% and 60% of future General and Safety deferred vested members, respectively, will continue to work for a reciprocal employer. For reciprocals, we assume 5.50% compensation increases per annum.

Future Benefit Accruals:

1.0 year of service per year for the full-time employees. Continuation of current partial service accrual for part-time employees.

Unknown Data for Members:

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

Percent Married:

75% of male members and 50% of female members are assumed to be married at pre-retirement death or retirement. There is no explicit assumption for children's benefits.

Age of Spouse:

Females are 3 years younger than their spouses.

**Offsets by Other Plans of the
Employer for Disability Benefits:**

The Plan requires members who retire because of disability from General Tier 3 to offset the Plan's disability benefits with other Plans of the employer. We have not assumed any offsets in this valuation.

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

Terminal Pay Assumptions:

The following assumptions for terminal pay as a percentage of final average pay are used:

	Membership Date before January 1, 2011	Membership Date on or after January 1, 2011
Cost Group 1:	12.00%	3.00%
Cost Group 2:	3.50% for Tier 2 7.50% for Tier 3	1.00%
Cost Group 3:	24.00%	8.00%
Cost Group 4:	6.00%	0.75%
Cost Group 5:	12.00%	3.00%
Cost Group 6:	12.00%	3.00%
Cost Group 7:	11.25%	1.50%
Cost Group 8:	10.50%	1.25%
Cost Group 9:	3.75%	0.50%
Cost Group 10:	14.00%	1.75%
Cost Group 11:	15.00%	3.50%
Cost Group 12:	16.00%	8.00%

For determining the cost of the basic benefit (i.e. non-COLA component), the cost of this pay element is currently recognized in the valuation as an employer only cost and does not affect member contribution rates.

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

**Service From Unused
Sick Leave Conversion:**

The following assumptions for service converted from unused sick leave as a percentage of service at retirement are used:

Service Retirements:

General: 1.25%
Safety: 2.25%

Disability Retirements:

General: 0.25%
Safety: 1.25%

Pursuant to Section 31641.01, the cost of this benefit will be charged only to employers and will not affect member contribution rates.

**Net Investment Return:
Employee Contribution
Crediting Rate:**

7.75%, net of administration and investment expenses.

7.75%, compounded semi-annually.

Consumer Price Index:

Increase of 3.50% per year; retiree COLA increases due to CPI subject to a 3.00% maximum change per year except for Tier 3 disability benefits and Tier 2 benefits which are subject to a 4.00% (valued as 3.50% increase) maximum change per year. Safety Tier C benefits are subject to a 2.00% maximum change per year.

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

Salary Increases:

Annual Rate of Compensation Increase		
Inflation: 3.50% per year, plus “across the board” salary increases of 0.75% per year, plus the following merit and promotional increases.		
Years of Service	General	Safety
Less than 1	9.00%	9.50%
1	6.00%	6.25%
2	4.75%	5.25%
3	3.25%	4.00%
4	2.25%	2.00%
5	1.50%	0.75%
6	1.25%	0.75%
7	1.00%	0.75%
8	0.75%	0.75%
9	0.75%	0.75%
10	0.75%	0.75%
11	0.75%	0.75%
12	0.75%	0.75%
13	0.75%	0.75%
14	0.75%	0.75%
15	0.75%	0.75%
16	0.75%	0.75%
17	0.75%	0.75%
18	0.75%	0.75%
19	0.75%	0.75%
20 & over	0.75%	0.75%

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

Actuarial Value of Assets:

Market value of assets less unrecognized returns in each of the last nine semi-annual accounting periods. Unrecognized return is equal to the difference between the actual market return and the expected return on the market value, and is recognized semi-annually over a five-year period.

Valuation Value of Assets:

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

Actuarial Cost Method:

Entry Age Normal Actuarial Cost Method. Entry Age is calculated as age on the valuation date minus years of service. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are based on costs allocated as a level percent of compensation, with Normal Cost determined as if the current benefit accrual rate had always been in effect.

Changes in Actuarial Assumptions and Methods:

There have been no changes in actuarial assumptions since the previous valuation.

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

EXHIBIT V

Summary of Plan Provisions

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

Membership Eligibility:

General Tier 1

All General members hired before July 1, 1980 and electing not to transfer to Tier 2 Plan. Certain General members who are hired after July 1, 1980 and work for specific employers are placed in Tier 1.

General Tier 2

Most General members hired on or after August 1, 1980 and all General members hired before July 1, 1980 electing to transfer to the Tier 2 Plan. Effective October 1, 2002, for the County, Tier 2 was eliminated and all County employees (excluding CNA employees) in Tier 2 were placed in Tier 3. Effective January 1, 2005, all CNA employees in Tier 2 were placed in Tier 3.

General Tier 3

Tier 2 members can elect Tier 3 coverage (for future service) effective on the later of: October 1, 1998 or the day after achieving 5 years of service. All County General members (excluding CNA employees) hired on or after October 1, 2002 will be placed in Tier 3. All CNA employees hired after January 1, 2005 were placed in Tier 3.

Safety

All Safety members. All County Sheriff's Department Safety members hired on or after January 1, 2007 will be placed in Safety Tier C Enhanced.

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

**Final Compensation for
Benefit Determination:**

*General Tier 1, Tier 3 (non-disability),
and Safety Tier A* Highest consecutive twelve months of compensation earnable. (FAS1)

*General Tier 2, Tier 3 (disability),
and Safety Tier C* Highest consecutive thirty-six months of compensation earnable. (FAS3)

Note: For members with membership dates on or after January 1, 2011, certain terminal pay elements are no longer included in the determination of compensation for retirement purposes.

Social Security Primary Insurance Amount:

General Tier 2 Estimated Social Security award at age 62 assuming level future earnings. (PIA)

Service:

General Tier 1 and 3 and Safety Years of service. (Yrs)

General Tier 2 Years of service up to a maximum of 30 years. (Yrs30)

Service Retirement Eligibility:

General Age 50 with 10 years of service, or age 70 regardless of service, or after 30 years of service, regardless of age.

Safety Age 50 with 10 years of service, or age 70 regardless of service, or after 20 years of service, regardless of age.

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

Benefit Formula:

General Tier 1 and Tier 3 (Non-enhanced)(§31676.11)

Retirement Age	Benefit Formula
50	$(1.24\% \times \text{FAS1} - 1/3 \times 1.24\% \times \$350 \times 12) \times \text{Yrs}$
55	$(1.67\% \times \text{FAS1} - 1/3 \times 1.67\% \times \$350 \times 12) \times \text{Yrs}$
60	$(2.18\% \times \text{FAS1} - 1/3 \times 2.18\% \times \$350 \times 12) \times \text{Yrs}$
62	$(2.35\% \times \text{FAS1} - 1/3 \times 2.35\% \times \$350 \times 12) \times \text{Yrs}$
65	$(2.61\% \times \text{FAS1} - 1/3 \times 2.61\% \times \$350 \times 12) \times \text{Yrs}$

Maximum Benefit: 100% of FAS1

General Tier 2 (§31752)

50	$(0.83\% \times \text{FAS3} \times \text{Yrs} - 0.57\% \times \text{Yrs} \times 30 \times \text{PIA})$
55	$(1.13\% \times \text{FAS3} \times \text{Yrs} - 0.87\% \times \text{Yrs} \times 30 \times \text{PIA})$
60	$(1.43\% \times \text{FAS3} \times \text{Yrs} - 1.37\% \times \text{Yrs} \times 30 \times \text{PIA})$
62	$(1.55\% \times \text{FAS3} \times \text{Yrs} - 1.67\% \times \text{Yrs} \times 30 \times \text{PIA})$
65	$(1.73\% \times \text{FAS3} \times \text{Yrs} - 1.67\% \times \text{Yrs} \times 30 \times \text{PIA})$

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

Benefit Formula:

<i>Safety Tier A (Non-enhanced)(§31664)</i>	50	(2.00%xFAS1xYrs)
	55	(2.62%xFAS1xYrs)

Maximum Benefit: 100% of FAS1

<i>General Tier 1 and Tier 3 (Enhanced) (§31676.16)</i>	Retirement Age	Benefit Formula
	50	(1.43%xFAS1 – 1/3x1.43%x\$350x12)xYrs
	55	(2.00%xFAS1 – 1/3x2.00%x\$350x12)xYrs
	60	(2.26%xFAS1 – 1/3x2.26%x\$350x12)xYrs
	62	(2.37%xFAS1 – 1/3x2.37%x\$350x12)xYrs
	65	(2.42%xFAS1 – 1/3x2.42%x\$350x12)xYrs

For members previously covered under the non-enhanced §31676.11 formula, they are entitled to at least the benefits they could have received under §31676.11.

Maximum Benefit: 100% of FAS1

<i>Safety Tier A (Enhanced)(§31664.1)</i>	50	(3.00%xFAS1xYrs)
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Maximum Benefit: 100% of FAS1

<i>Safety Tier C (Enhanced)(§31664.1)</i>	50	(3.00%xFAS3xYrs)
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Maximum Benefit: 100% of FAS3

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

Ordinary Disability:

General Tier 1

Eligibility

Five years of service (§31720).

Benefit Formula

1.5% per year of service. If the benefit does not exceed one-third of Final Compensation, the service is projected to 65, but total benefit cannot be more than one-third of Final Compensation (§31727).

General Tier 2 and General Tier 3

Eligibility

Ten years of service (definition of disability is more strict than Tier 1 Plan) (§31720.1).

Benefit Formula

40% of Final Compensation plus 10% of Final Compensation used in the benefit determination for each minor child (maximum of three) (§31727.01).

Offset

Disability benefits are offset by other plans of the employer except Workers Compensation and Social Security.

Safety

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 total benefit cannot be more than one-third of Final Compensation (§31727.2).

Line-of-Duty Disability:

General Tier 1 and Safety

Eligibility

No age or service requirements (§31720).

Benefit Formula

50% of the Final Compensation (§31727.4).

General Tier 2 and General Tier 3

Eligibility

No age or service requirements (§31720).

Benefit Formula

40% of Final Compensation plus 10% of Final Compensation for each minor child (maximum of three) (§31727.01).

Offset

Disability benefits are offset by other plans of the Employer except Workers Compensation and Social Security.

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

Pre-Retirement Death:

General Tier 1 and Tier 3, and Safety

Eligibility - A

None.

Benefit - A

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); 50% of Final Compensation payable to spouse if Line of Duty death (§31787).

OR

Eligibility - B

Five years of service (Ten years for Tier 3).

Benefit - B

Option 2 (100% continuation) of Service Retirement or Ordinary Disability benefit payable to designated beneficiary.

Death in line of duty

50% of Final compensation.

General Tier 2

Eligibility - A

None.

Benefit - A

Refund of employee contributions with interest plus \$2,000 lump sum benefit offset by any Social Security payment. (§31781.01); If a Line of Duty death, then 60% of Service or Disability Retirement Benefit (minimum benefit is 24% of Final Compensation) plus, for each minor child, 10% of the allowance otherwise paid to the member. Minimum family benefit is 60% of the member's allowance. Maximum family benefit is 100% of member's allowance.

OR

Eligibility - B

Ten years of service.

Benefit - B

Option 2 (100% continuation) of Service Retirement or Ordinary Disability benefit payable to designated beneficiary.

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

Death After Retirement:

General Tier 1 and Tier 3, and Safety

Service or

Ordinary Disability Retirement

60% of member's unmodified allowance continued to eligible spouse. An eligible spouse is a surviving spouse who was married to the member one year prior to member's retirement or at least two years prior to the date of death and has attained age 55 on or prior to the date of death (§31760.2). An additional lump sum benefit of \$5,000 is payable to the member's beneficiary (§31789.12).

Line-of-Duty Disability

100% of members allowance continued to eligible spouse (§31786). An additional lump sum benefit of \$5,000 is payable to the member's beneficiary (§31789.12).

General Tier 2

Service or

Disability Retirement

60% of member's unmodified allowance continued to eligible spouse plus 10% of allowance to each minor child. Minimum benefit is 60% of allowance. Maximum benefit is 100% of allowance. \$7,000 lump sum benefit, less any Social Security Lump sum payment payable to member's beneficiary.

Withdrawal Benefits:

Less than Five Years of Service

Refund of accumulated employee contributions with interest, or earned benefit at age 70 (§31628).

Five or More Years of Service

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

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

Post-Retirement Cost-of-Living Benefits:

General Tier 1 and Tier 3, and Safety Tier A

Future changes based on Consumer Price Index to a maximum of 3% per year, excess "banked." Tier 3 disability benefits have a maximum of 4% per year, excess "banked."

General Tier 2

Future changes based on Consumer Price Index to a maximum of 4% per year, excess "banked."

Safety Tier C

Future changes based on Consumer Price Index to a maximum of 2% per year, excess "banked."

County Contributions:

Determined by the Entry Age Normal Cost method. The remaining balance of the December 31, 2007 Unfunded Actuarial Accrued Liability (UAAL) is amortized as a level percent of payroll over a declining period with 11 years remaining as of December 31, 2011. Any change in the UAAL that arises at each valuation after December 31, 2007 is amortized over its own separate declining 18-year period.

Member Contributions:

Please refer to Appendices A and B for the specific rates.

General Tier 1 and Tier 3 (Non-enhanced)

Basic

Provide for one-half of the §31676.11 benefit payable at age 55.

Cost-of-Living

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

Safety Tier A (Non-enhanced)

Basic

Provide for one-half of the §31664 benefit payable at age 50.

Cost-of-Living

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

General Tier 1 and Tier 3 (Enhanced)

Basic

Provide for an average annuity at age 60 equal to 1/120 of FAS1.

Cost-of-Living

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

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

Member Contributions (continued):

Safety Tier A (Enhanced)	Provide for an average annuity at age 50 equal to 1/100 of FAS1.
<i>Basic</i>	
<i>Cost-of-Living</i>	Provide for one-half of future Cost-of-Living costs.
Safety Tier C (Enhanced)	
<i>Basic</i>	Provide for an average annuity at age 50 equal to 1/100 of FAS3.
<i>Cost-of-Living</i>	Provide for one-half of future Cost-of-Living costs.

Other Information:

Transfers from the Tier 1 Plan to the Tier 2 Plan were made on an individual voluntary irrevocable basis. Credit is given under the Tier 2 Plan for future service only. The Cost-of-Living maximum is 4% only for the credit under the Tier 2 Plan. Transferred Tier 2 Plan members keep the five-year requirement for nonservice-connected disability. Those who were members on or before March 7, 1973 and all safety members under the enhanced benefit formula will be exempt from paying member contributions after 30 years of service.

Plan Amendments: There have been no changes in plan provisions since the previous actuarial valuation.

Plan Provisions Not Valued:

Additional \$5,000 lump sum post-retirement death benefit payable to a member's beneficiary. This benefit is paid from a reserve that is not included in the Valuation Value of Assets and is subject at all times to the availability of funds.

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 that both can be sure the proper provisions are valued.

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

Appendix A

Member Contribution Rates for Members with Membership Dates before January 1, 2011

**General Tier 1 (Non-enhanced) Members' Contribution Rates for Members Not Receiving Benefits under
2% at 55 Formula (Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates before January 1, 2011**

Entry Age	Calculated Under Recommended Assumptions					
	Basic		COLA		Total	
	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
15	3.63%	5.44%	1.87%	2.81%	5.50%	8.25%
16	3.69%	5.53%	1.91%	2.86%	5.60%	8.39%
17	3.74%	5.61%	1.93%	2.90%	5.67%	8.51%
18	3.80%	5.70%	1.96%	2.94%	5.76%	8.64%
19	3.86%	5.79%	1.99%	2.99%	5.85%	8.78%
20	3.92%	5.88%	2.03%	3.04%	5.95%	8.92%
21	3.98%	5.97%	2.05%	3.08%	6.03%	9.05%
22	4.04%	6.06%	2.09%	3.13%	6.13%	9.19%
23	4.10%	6.15%	2.12%	3.18%	6.22%	9.33%
24	4.16%	6.24%	2.15%	3.22%	6.31%	9.46%
25	4.23%	6.34%	2.18%	3.27%	6.41%	9.61%
26	4.29%	6.43%	2.21%	3.32%	6.50%	9.75%
27	4.35%	6.53%	2.25%	3.37%	6.60%	9.90%
28	4.42%	6.63%	2.28%	3.42%	6.70%	10.05%
29	4.49%	6.73%	2.32%	3.48%	6.81%	10.21%
30	4.55%	6.83%	2.35%	3.53%	6.90%	10.36%
31	4.63%	6.94%	2.39%	3.58%	7.02%	10.52%
32	4.70%	7.05%	2.43%	3.64%	7.13%	10.69%
33	4.77%	7.15%	2.46%	3.69%	7.23%	10.84%
34	4.84%	7.26%	2.50%	3.75%	7.34%	11.01%
35	4.91%	7.37%	2.54%	3.81%	7.45%	11.18%
36	4.99%	7.49%	2.58%	3.87%	7.57%	11.36%
37	5.07%	7.60%	2.61%	3.92%	7.68%	11.52%

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

**General Tier 1 (Non-enhanced) Members' Contribution Rates for Members Not Receiving Benefits under
2% at 55 Formula (Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates before January 1, 2011**

Entry Age	Calculated Under Recommended Assumptions					
	Basic		COLA		Total	
	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
38	5.15%	7.72%	2.66%	3.99%	7.81%	11.71%
39	5.23%	7.84%	2.70%	4.05%	7.93%	11.89%
40	5.31%	7.97%	2.75%	4.12%	8.06%	12.09%
41	5.40%	8.10%	2.79%	4.18%	8.19%	12.28%
42	5.49%	8.23%	2.83%	4.25%	8.32%	12.48%
43	5.58%	8.37%	2.88%	4.32%	8.46%	12.69%
44	5.67%	8.51%	2.93%	4.39%	8.60%	12.90%
45	5.78%	8.67%	2.99%	4.48%	8.77%	13.15%
46	5.90%	8.85%	3.05%	4.57%	8.95%	13.42%
47	6.01%	9.01%	3.10%	4.65%	9.11%	13.66%
48	6.10%	9.15%	3.15%	4.73%	9.25%	13.88%
49	6.21%	9.32%	3.21%	4.81%	9.42%	14.13%
50	6.31%	9.47%	3.26%	4.89%	9.57%	14.36%
51	6.35%	9.53%	3.28%	4.92%	9.63%	14.45%
52	6.35%	9.52%	3.28%	4.92%	9.63%	14.44%
53	6.33%	9.49%	3.27%	4.90%	9.60%	14.39%
54	6.11%	9.16%	3.15%	4.73%	9.26%	13.89%
55	6.11%	9.16%	3.15%	4.73%	9.26%	13.89%
56	6.11%	9.16%	3.15%	4.73%	9.26%	13.89%
57	6.11%	9.16%	3.15%	4.73%	9.26%	13.89%
58	6.11%	9.16%	3.15%	4.73%	9.26%	13.89%
59	6.11%	9.16%	3.15%	4.73%	9.26%	13.89%
60	6.11%	9.16%	3.15%	4.73%	9.26%	13.89%

Interest:

7.75%

Salary Increase:

See Exhibit IV.

COLA Loading:

51.64%

Mortality:

RP-2000 Combined Healthy Mortality Table (30% Male and 70% Female, with ages set back three years for males and two years for females)

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

**General Tier 1 (Enhanced) Members' Contribution Rates for Members Receiving Benefits under 2% at 55 Formula
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates before January 1, 2011**

Calculated Under Recommended Assumptions

Entry Age	Basic			COLA			Total	
	First \$350	Over \$350	Over \$350	First \$350	Over \$350	Over \$350	First \$350	Over \$350
15	3.16%	4.74%		1.86%	2.79%		5.02%	7.53%
16	3.21%	4.81%		1.89%	2.84%		5.10%	7.65%
17	3.26%	4.89%		1.92%	2.88%		5.18%	7.77%
18	3.31%	4.96%		1.95%	2.92%		5.26%	7.88%
19	3.36%	5.04%		1.98%	2.97%		5.34%	8.01%
20	3.41%	5.12%		2.01%	3.02%		5.42%	8.14%
21	3.47%	5.20%		2.04%	3.06%		5.51%	8.26%
22	3.52%	5.28%		2.07%	3.11%		5.59%	8.39%
23	3.57%	5.36%		2.11%	3.16%		5.68%	8.52%
24	3.63%	5.44%		2.14%	3.21%		5.77%	8.65%
25	3.69%	5.53%		2.17%	3.26%		5.86%	8.79%
26	3.74%	5.61%		2.21%	3.31%		5.95%	8.92%
27	3.80%	5.70%		2.24%	3.36%		6.04%	9.06%
28	3.85%	5.78%		2.27%	3.41%		6.12%	9.19%
29	3.91%	5.87%		2.31%	3.46%		6.22%	9.33%
30	3.97%	5.96%		2.34%	3.51%		6.31%	9.47%
31	4.03%	6.05%		2.38%	3.57%		6.41%	9.62%
32	4.09%	6.14%		2.41%	3.62%		6.50%	9.76%
33	4.16%	6.24%		2.45%	3.68%		6.61%	9.92%
34	4.22%	6.33%		2.49%	3.73%		6.71%	10.06%
35	4.29%	6.43%		2.53%	3.79%		6.82%	10.22%
36	4.35%	6.53%		2.57%	3.85%		6.92%	10.38%
37	4.42%	6.63%		2.61%	3.91%		7.03%	10.54%
38	4.49%	6.73%		2.65%	3.97%		7.14%	10.70%
39	4.55%	6.83%		2.69%	4.03%		7.24%	10.86%
40	4.62%	6.93%		2.72%	4.08%		7.34%	11.01%

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

**General Tier 1 (Enhanced) Members' Contribution Rates for Members Receiving Benefits under 2% at 55 Formula
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates before January 1, 2011**

Calculated Under Recommended Assumptions						
Entry Age	Basic		COLA		Total	
	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
41	4.69%	7.04%	2.77%	4.15%	7.46%	11.19%
42	4.77%	7.15%	2.81%	4.21%	7.58%	11.36%
43	4.84%	7.26%	2.85%	4.28%	7.69%	11.54%
44	4.92%	7.38%	2.90%	4.35%	7.82%	11.73%
45	4.99%	7.49%	2.94%	4.41%	7.93%	11.90%
46	5.08%	7.62%	2.99%	4.49%	8.07%	12.11%
47	5.16%	7.74%	3.04%	4.56%	8.20%	12.30%
48	5.25%	7.87%	3.09%	4.64%	8.34%	12.51%
49	5.34%	8.01%	3.15%	4.72%	8.49%	12.73%
50	5.43%	8.15%	3.20%	4.80%	8.63%	12.95%
51	5.55%	8.32%	3.27%	4.90%	8.82%	13.22%
52	5.65%	8.48%	3.33%	5.00%	8.98%	13.48%
53	5.74%	8.61%	3.38%	5.07%	9.12%	13.68%
54	5.85%	8.77%	3.45%	5.17%	9.30%	13.94%
55	5.94%	8.91%	3.50%	5.25%	9.44%	14.16%
56	5.97%	8.96%	3.52%	5.28%	9.49%	14.24%
57	5.97%	8.96%	3.52%	5.28%	9.49%	14.24%
58	5.95%	8.93%	3.51%	5.26%	9.46%	14.19%
59	5.75%	8.62%	3.39%	5.08%	9.14%	13.70%
60	5.75%	8.62%	3.39%	5.08%	9.14%	13.70%

Interest: 7.75%

Salary Increase: See Exhibit IV.

COLA Loading: 58.94%

Mortality: RP-2000 Combined Healthy Mortality Table (30% Male and 70% Female, with ages set back three years for males and two years for females)

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

**General Tier 3 (Enhanced) Members' Contribution Rates for Members Receiving Benefits under 2% at 55 Formula
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates before January 1, 2011**

Entry Age	Calculated Under Recommended Assumptions					
	Basic		COLA		Total	
	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
15	3.16%	4.74%	1.59%	2.38%	4.75%	7.12%
16	3.21%	4.81%	1.61%	2.42%	4.82%	7.23%
17	3.26%	4.89%	1.64%	2.46%	4.90%	7.35%
18	3.31%	4.96%	1.66%	2.49%	4.97%	7.45%
19	3.36%	5.04%	1.69%	2.53%	5.05%	7.57%
20	3.41%	5.12%	1.71%	2.57%	5.12%	7.69%
21	3.47%	5.20%	1.74%	2.61%	5.21%	7.81%
22	3.52%	5.28%	1.77%	2.65%	5.29%	7.93%
23	3.57%	5.36%	1.79%	2.69%	5.36%	8.05%
24	3.63%	5.44%	1.82%	2.73%	5.45%	8.17%
25	3.69%	5.53%	1.85%	2.78%	5.54%	8.31%
26	3.74%	5.61%	1.88%	2.82%	5.62%	8.43%
27	3.80%	5.70%	1.91%	2.87%	5.71%	8.57%
28	3.85%	5.78%	1.94%	2.91%	5.79%	8.69%
29	3.91%	5.87%	1.97%	2.95%	5.88%	8.82%
30	3.97%	5.96%	2.00%	3.00%	5.97%	8.96%
31	4.03%	6.05%	2.03%	3.04%	6.06%	9.09%
32	4.09%	6.14%	2.06%	3.09%	6.15%	9.23%
33	4.16%	6.24%	2.09%	3.14%	6.25%	9.38%
34	4.22%	6.33%	2.12%	3.18%	6.34%	9.51%
35	4.29%	6.43%	2.15%	3.23%	6.44%	9.66%
36	4.35%	6.53%	2.19%	3.28%	6.54%	9.81%
37	4.42%	6.63%	2.22%	3.33%	6.64%	9.96%
38	4.49%	6.73%	2.25%	3.38%	6.74%	10.11%
39	4.55%	6.83%	2.29%	3.43%	6.84%	10.26%

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

**General Tier 3 (Enhanced) Members' Contribution Rates for Members Receiving Benefits under 2% at 55 Formula
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates before January 1, 2011**

Calculated Under Recommended Assumptions						
Entry Age	Basic		COLA		Total	
	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
40	4.62%	6.93%	2.32%	3.48%	6.94%	10.41%
41	4.69%	7.04%	2.36%	3.54%	7.05%	10.58%
42	4.77%	7.15%	2.39%	3.59%	7.16%	10.74%
43	4.84%	7.26%	2.43%	3.65%	7.27%	10.91%
44	4.92%	7.38%	2.47%	3.71%	7.39%	11.09%
45	4.99%	7.49%	2.51%	3.77%	7.50%	11.26%
46	5.08%	7.62%	2.55%	3.83%	7.63%	11.45%
47	5.16%	7.74%	2.59%	3.89%	7.75%	11.63%
48	5.25%	7.87%	2.64%	3.96%	7.89%	11.83%
49	5.34%	8.01%	2.69%	4.03%	8.03%	12.04%
50	5.43%	8.15%	2.73%	4.10%	8.16%	12.25%
51	5.55%	8.32%	2.79%	4.18%	8.34%	12.50%
52	5.65%	8.48%	2.84%	4.26%	8.49%	12.74%
53	5.74%	8.61%	2.89%	4.33%	8.63%	12.94%
54	5.85%	8.77%	2.94%	4.41%	8.79%	13.18%
55	5.94%	8.91%	2.99%	4.48%	8.93%	13.39%
56	5.97%	8.96%	3.00%	4.50%	8.97%	13.46%
57	5.97%	8.96%	3.00%	4.50%	8.97%	13.46%
58	5.95%	8.93%	2.99%	4.49%	8.94%	13.42%
59	5.75%	8.62%	2.89%	4.33%	8.64%	12.95%
60	5.75%	8.62%	2.89%	4.33%	8.64%	12.95%

Interest:

7.75%

Salary Increase:

See Exhibit IV.

COLA Loading:

50.27%

Mortality:

RP-2000 Combined Healthy Mortality Table (30% Male and 70% Female, with ages set back three years for males and two years for females)

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

**Safety Tier A (Non-enhanced) Members' Contribution Rates for Members Not Receiving Benefits under 3% at 50
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates before January 1, 2011**

Calculated Under Recommended Assumptions			
Entry Age	Basic	COLA	Total
15	7.99%	4.77%	12.76%
16	7.99%	4.77%	12.76%
17	7.99%	4.77%	12.76%
18	7.99%	4.77%	12.76%
19	7.99%	4.77%	12.76%
20	7.99%	4.77%	12.76%
21	7.99%	4.77%	12.76%
22	8.11%	4.84%	12.95%
23	8.24%	4.92%	13.16%
24	8.36%	4.99%	13.35%
25	8.49%	5.07%	13.56%
26	8.62%	5.15%	13.77%
27	8.74%	5.22%	13.96%
28	8.88%	5.30%	14.18%
29	9.01%	5.38%	14.39%
30	9.15%	5.46%	14.61%
31	9.29%	5.55%	14.84%
32	9.43%	5.63%	15.06%
33	9.58%	5.72%	15.30%
34	9.73%	5.81%	15.54%
35	9.88%	5.90%	15.78%
36	10.04%	5.99%	16.03%
37	10.20%	6.09%	16.29%
38	10.38%	6.20%	16.58%
39	10.55%	6.30%	16.85%
40	10.75%	6.42%	17.17%
41	10.93%	6.53%	17.46%
42	11.17%	6.67%	17.84%

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

**Safety Tier A (Non-enhanced) Members' Contribution Rates for Members Not Receiving Benefits under 3% at 50
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates before January 1, 2011**

Calculated Under Recommended Assumptions

Entry Age	Basic	COLA	Total
43	11.40%	6.81%	18.21%
44	11.68%	6.97%	18.65%
45	11.88%	7.09%	18.97%
46	11.91%	7.11%	19.02%
47	11.86%	7.08%	18.94%
48	11.77%	7.03%	18.80%
49	11.65%	6.96%	18.61%
50	11.65%	6.96%	18.61%
51	11.65%	6.96%	18.61%
52	11.65%	6.96%	18.61%
53	11.65%	6.96%	18.61%
54	11.65%	6.96%	18.61%
55	11.65%	6.96%	18.61%
56	11.65%	6.96%	18.61%
57	11.65%	6.96%	18.61%
58	11.65%	6.96%	18.61%
59	11.65%	6.96%	18.61%
60	11.65%	6.96%	18.61%

Interest:

7.75%

Salary Increase:

See Exhibit IV.

COLA Loading:

59.71%

Mortality:

RP-2000 Combined Healthy Mortality Table (85% Male and 15% Female, with ages set back three years for males and two years for females)

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

**Safety Tier A (Enhanced) Members' Contribution Rates for Members Receiving Benefits under 3% at 50 Formula
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates before January 1, 2011**

Calculated Under Recommended Assumptions			
Entry Age	Basic	COLA	Total
15	7.99%	5.98%	13.97%
16	7.99%	5.98%	13.97%
17	7.99%	5.98%	13.97%
18	7.99%	5.98%	13.97%
19	7.99%	5.98%	13.97%
20	7.99%	5.98%	13.97%
21	7.99%	5.98%	13.97%
22	8.11%	6.07%	14.18%
23	8.24%	6.17%	14.41%
24	8.36%	6.26%	14.62%
25	8.49%	6.36%	14.85%
26	8.62%	6.46%	15.08%
27	8.74%	6.55%	15.29%
28	8.88%	6.65%	15.53%
29	9.01%	6.75%	15.76%
30	9.15%	6.85%	16.00%
31	9.29%	6.96%	16.25%
32	9.43%	7.06%	16.49%
33	9.58%	7.18%	16.76%
34	9.73%	7.29%	17.02%
35	9.88%	7.40%	17.28%
36	10.04%	7.52%	17.56%
37	10.20%	7.64%	17.84%
38	10.38%	7.77%	18.15%
39	10.55%	7.90%	18.45%
40	10.75%	8.05%	18.80%
41	10.93%	8.19%	19.12%
42	11.17%	8.37%	19.54%

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

**Safety Tier A (Enhanced) Members' Contribution Rates for Members Receiving Benefits under 3% at 50 Formula
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates before January 1, 2011**

Calculated Under Recommended Assumptions

Entry Age	Basic	COLA	Total
43	11.40%	8.54%	19.94%
44	11.68%	8.75%	20.43%
45	11.88%	8.90%	20.78%
46	11.91%	8.92%	20.83%
47	11.86%	8.88%	20.74%
48	11.77%	8.82%	20.59%
49	11.65%	8.73%	20.38%
50	11.65%	8.73%	20.38%
51	11.65%	8.73%	20.38%
52	11.65%	8.73%	20.38%
53	11.65%	8.73%	20.38%
54	11.65%	8.73%	20.38%
55	11.65%	8.73%	20.38%
56	11.65%	8.73%	20.38%
57	11.65%	8.73%	20.38%
58	11.65%	8.73%	20.38%
59	11.65%	8.73%	20.38%
60	11.65%	8.73%	20.38%

Interest:

7.75%

Salary Increase: See Exhibit IV.

COLA Loading: 74.90%

Mortality:

RP-2000 Combined Healthy Mortality Table (85% Male and 15% Female, with ages set back three years for males and two years for females)

These rates exclude up to an extra 9% of compensation (depending on their MOU) that most Safety Tier A (Enhanced) members contribute that reduces the employer's contribution rate.

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

**Safety Tier C (Enhanced) Members' Contribution Rates for Members Receiving Benefits under 3% at 50 Formula
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates before January 1, 2011**

Calculated Under Recommended Assumptions			
Entry Age	Basic	COLA	Total
15	7.62%	3.36%	10.98%
16	7.62%	3.36%	10.98%
17	7.62%	3.36%	10.98%
18	7.62%	3.36%	10.98%
19	7.62%	3.36%	10.98%
20	7.62%	3.36%	10.98%
21	7.62%	3.36%	10.98%
22	7.73%	3.41%	11.14%
23	7.85%	3.46%	11.31%
24	7.97%	3.52%	11.49%
25	8.09%	3.57%	11.66%
26	8.21%	3.62%	11.83%
27	8.34%	3.68%	12.02%
28	8.46%	3.73%	12.19%
29	8.59%	3.79%	12.38%
30	8.72%	3.85%	12.57%
31	8.85%	3.90%	12.75%
32	8.99%	3.97%	12.96%
33	9.13%	4.03%	13.16%
34	9.27%	4.09%	13.36%
35	9.42%	4.16%	13.58%
36	9.57%	4.22%	13.79%
37	9.73%	4.29%	14.02%
38	9.89%	4.36%	14.25%
39	10.05%	4.43%	14.48%
40	10.24%	4.52%	14.76%
41	10.44%	4.61%	15.05%
42	10.64%	4.69%	15.33%

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

**Safety Tier C (Enhanced) Members' Contribution Rates for Members Receiving Benefits under 3% at 50 Formula
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates before January 1, 2011**

Calculated Under Recommended Assumptions

Entry Age	Basic	COLA	Total
43	10.82%	4.77%	15.59%
44	10.96%	4.84%	15.80%
45	10.98%	4.84%	15.82%
46	10.93%	4.82%	15.75%
47	10.69%	4.72%	15.41%
48	11.07%	4.88%	15.95%
49	11.65%	5.14%	16.79%
50	11.65%	5.14%	16.79%
51	11.65%	5.14%	16.79%
52	11.65%	5.14%	16.79%
53	11.65%	5.14%	16.79%
54	11.65%	5.14%	16.79%
55	11.65%	5.14%	16.79%
56	11.65%	5.14%	16.79%
57	11.65%	5.14%	16.79%
58	11.65%	5.14%	16.79%
59	11.65%	5.14%	16.79%
60	11.65%	5.14%	16.79%

Interest:

7.75%

Salary Increase:

See Exhibit IV.

COLA Loading:

44.12%

Mortality:

RP-2000 Combined Healthy Mortality Table (85% Male and 15% Female, with ages set back three years for males and two years for females)

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

Appendix B

Member Contribution Rates for Members with Membership Dates on or after January 1, 2011

**General Tier 1 (Non-enhanced) Members' Contribution Rates for Members Not Receiving Benefits under
2% at 55 Formula (Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates on or after January 1, 2011**

Calculated Under Recommended Assumptions

Entry Age	Basic		COLA		Total	
	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
15	3.63%	5.44%	1.59%	2.38%	5.22%	7.82%
16	3.69%	5.53%	1.61%	2.42%	5.30%	7.95%
17	3.74%	5.61%	1.63%	2.45%	5.37%	8.06%
18	3.80%	5.70%	1.66%	2.49%	5.46%	8.19%
19	3.86%	5.79%	1.69%	2.53%	5.55%	8.32%
20	3.92%	5.88%	1.71%	2.57%	5.63%	8.45%
21	3.98%	5.97%	1.74%	2.61%	5.72%	8.58%
22	4.04%	6.06%	1.77%	2.65%	5.81%	8.71%
23	4.10%	6.15%	1.79%	2.69%	5.89%	8.84%
24	4.16%	6.24%	1.82%	2.73%	5.98%	8.97%
25	4.23%	6.34%	1.85%	2.77%	6.08%	9.11%
26	4.29%	6.43%	1.87%	2.81%	6.16%	9.24%
27	4.35%	6.53%	1.90%	2.85%	6.25%	9.38%
28	4.42%	6.63%	1.93%	2.90%	6.35%	9.53%
29	4.49%	6.73%	1.96%	2.94%	6.45%	9.67%
30	4.55%	6.83%	1.99%	2.98%	6.54%	9.81%
31	4.63%	6.94%	2.02%	3.03%	6.65%	9.97%
32	4.70%	7.05%	2.05%	3.08%	6.75%	10.13%
33	4.77%	7.15%	2.08%	3.12%	6.85%	10.27%
34	4.84%	7.26%	2.11%	3.17%	6.95%	10.43%
35	4.91%	7.37%	2.15%	3.22%	7.06%	10.59%
36	4.99%	7.49%	2.18%	3.27%	7.17%	10.76%
37	5.07%	7.60%	2.21%	3.32%	7.28%	10.92%

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

**General Tier 1 (Non-enhanced) Members' Contribution Rates for Members Not Receiving Benefits under
2% at 55 Formula (Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates on or after January 1, 2011**

Entry Age	Calculated Under Recommended Assumptions					
	Basic		COLA		Total	
	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
38	5.15%	7.72%	2.25%	3.37%	7.40%	11.09%
39	5.23%	7.84%	2.29%	3.43%	7.52%	11.27%
40	5.31%	7.97%	2.32%	3.48%	7.63%	11.45%
41	5.40%	8.10%	2.36%	3.54%	7.76%	11.64%
42	5.49%	8.23%	2.40%	3.60%	7.89%	11.83%
43	5.58%	8.37%	2.44%	3.66%	8.02%	12.03%
44	5.67%	8.51%	2.48%	3.72%	8.15%	12.23%
45	5.78%	8.67%	2.53%	3.79%	8.31%	12.46%
46	5.90%	8.85%	2.58%	3.87%	8.48%	12.72%
47	6.01%	9.01%	2.63%	3.94%	8.64%	12.95%
48	6.10%	9.15%	2.67%	4.00%	8.77%	13.15%
49	6.21%	9.32%	2.71%	4.07%	8.92%	13.39%
50	6.31%	9.47%	2.76%	4.14%	9.07%	13.61%
51	6.35%	9.53%	2.77%	4.16%	9.12%	13.69%
52	6.35%	9.52%	2.77%	4.16%	9.12%	13.68%
53	6.33%	9.49%	2.77%	4.15%	9.10%	13.64%
54	6.11%	9.16%	2.67%	4.00%	8.78%	13.16%
55	6.11%	9.16%	2.67%	4.00%	8.78%	13.16%
56	6.11%	9.16%	2.67%	4.00%	8.78%	13.16%
57	6.11%	9.16%	2.67%	4.00%	8.78%	13.16%
58	6.11%	9.16%	2.67%	4.00%	8.78%	13.16%
59	6.11%	9.16%	2.67%	4.00%	8.78%	13.16%
60	6.11%	9.16%	2.67%	4.00%	8.78%	13.16%

Interest: 7.75%
Salary Increase: See Exhibit IV.
COLA Loading: 43.70%
Mortality: RP-2000 Combined Healthy Mortality Table (30% Male and 70% Female, with ages set back three years for males and two years for females)

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

**General Tier 1 (Enhanced) Members' Contribution Rates for Members Receiving Benefits under 2% at 55 Formula
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates on or after January 1, 2011**

Entry Age	Calculated Under Recommended Assumptions					
	Basic		COLA		Total	
	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
15	3.16%	4.74%	1.71%	2.56%	4.87%	7.30%
16	3.21%	4.81%	1.73%	2.60%	4.94%	7.41%
17	3.26%	4.89%	1.77%	2.65%	5.03%	7.54%
18	3.31%	4.96%	1.79%	2.68%	5.10%	7.64%
19	3.36%	5.04%	1.82%	2.73%	5.18%	7.77%
20	3.41%	5.12%	1.85%	2.77%	5.26%	7.89%
21	3.47%	5.20%	1.87%	2.81%	5.34%	8.01%
22	3.52%	5.28%	1.91%	2.86%	5.43%	8.14%
23	3.57%	5.36%	1.93%	2.90%	5.50%	8.26%
24	3.63%	5.44%	1.96%	2.94%	5.59%	8.38%
25	3.69%	5.53%	1.99%	2.99%	5.68%	8.52%
26	3.74%	5.61%	2.03%	3.04%	5.77%	8.65%
27	3.80%	5.70%	2.05%	3.08%	5.85%	8.78%
28	3.85%	5.78%	2.09%	3.13%	5.94%	8.91%
29	3.91%	5.87%	2.12%	3.18%	6.03%	9.05%
30	3.97%	5.96%	2.15%	3.22%	6.12%	9.18%
31	4.03%	6.05%	2.18%	3.27%	6.21%	9.32%
32	4.09%	6.14%	2.21%	3.32%	6.30%	9.46%
33	4.16%	6.24%	2.25%	3.38%	6.41%	9.62%
34	4.22%	6.33%	2.29%	3.43%	6.51%	9.76%
35	4.29%	6.43%	2.32%	3.48%	6.61%	9.91%
36	4.35%	6.53%	2.35%	3.53%	6.70%	10.06%
37	4.42%	6.63%	2.39%	3.59%	6.81%	10.22%
38	4.49%	6.73%	2.43%	3.64%	6.92%	10.37%
39	4.55%	6.83%	2.47%	3.70%	7.02%	10.53%
40	4.62%	6.93%	2.50%	3.75%	7.12%	10.68%

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

**General Tier 1 (Enhanced) Members' Contribution Rates for Members Receiving Benefits under 2% at 55 Formula
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates on or after January 1, 2011**

Entry Age	Calculated Under Recommended Assumptions					
	Basic		COLA		Total	
	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
41	4.69%	7.04%	2.54%	3.81%	7.23%	10.85%
42	4.77%	7.15%	2.58%	3.87%	7.35%	11.02%
43	4.84%	7.26%	2.62%	3.93%	7.46%	11.19%
44	4.92%	7.38%	2.66%	3.99%	7.58%	11.37%
45	4.99%	7.49%	2.70%	4.05%	7.69%	11.54%
46	5.08%	7.62%	2.75%	4.12%	7.83%	11.74%
47	5.16%	7.74%	2.79%	4.19%	7.95%	11.93%
48	5.25%	7.87%	2.84%	4.26%	8.09%	12.13%
49	5.34%	8.01%	2.89%	4.33%	8.23%	12.34%
50	5.43%	8.15%	2.94%	4.41%	8.37%	12.56%
51	5.55%	8.32%	3.00%	4.50%	8.55%	12.82%
52	5.65%	8.48%	3.06%	4.59%	8.71%	13.07%
53	5.74%	8.61%	3.11%	4.66%	8.85%	13.27%
54	5.85%	8.77%	3.17%	4.75%	9.02%	13.52%
55	5.94%	8.91%	3.21%	4.82%	9.15%	13.73%
56	5.97%	8.96%	3.23%	4.85%	9.20%	13.81%
57	5.97%	8.96%	3.23%	4.85%	9.20%	13.81%
58	5.95%	8.93%	3.22%	4.83%	9.17%	13.76%
59	5.75%	8.62%	3.11%	4.66%	8.86%	13.28%
60	5.75%	8.62%	3.11%	4.66%	8.86%	13.28%

Interest: 7.75%

Salary Increase: See Exhibit IV.

COLA Loading: 54.11%

Mortality: RP-2000 Combined Healthy Mortality Table (30% Male and 70% Female, with ages set back three years for males and two years for females)

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

**General Tier 3 (Enhanced) Members' Contribution Rates for Members Receiving Benefits under 2% at 55 Formula
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates on or after January 1, 2011**

Calculated Under Recommended Assumptions

Entry Age	Basic		COLA		Total	
	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
15	3.16%	4.74%	1.41%	2.11%	4.57%	6.85%
16	3.21%	4.81%	1.43%	2.14%	4.64%	6.95%
17	3.26%	4.89%	1.45%	2.18%	4.71%	7.07%
18	3.31%	4.96%	1.47%	2.21%	4.78%	7.17%
19	3.36%	5.04%	1.50%	2.25%	4.86%	7.29%
20	3.41%	5.12%	1.52%	2.28%	4.93%	7.40%
21	3.47%	5.20%	1.55%	2.32%	5.02%	7.52%
22	3.52%	5.28%	1.57%	2.35%	5.09%	7.63%
23	3.57%	5.36%	1.59%	2.39%	5.16%	7.75%
24	3.63%	5.44%	1.62%	2.43%	5.25%	7.87%
25	3.69%	5.53%	1.65%	2.47%	5.34%	8.00%
26	3.74%	5.61%	1.67%	2.50%	5.41%	8.11%
27	3.80%	5.70%	1.69%	2.54%	5.49%	8.24%
28	3.85%	5.78%	1.72%	2.58%	5.57%	8.36%
29	3.91%	5.87%	1.75%	2.62%	5.66%	8.49%
30	3.97%	5.96%	1.77%	2.66%	5.74%	8.62%
31	4.03%	6.05%	1.80%	2.70%	5.83%	8.75%
32	4.09%	6.14%	1.83%	2.74%	5.92%	8.88%
33	4.16%	6.24%	1.85%	2.78%	6.01%	9.02%
34	4.22%	6.33%	1.88%	2.82%	6.10%	9.15%
35	4.29%	6.43%	1.91%	2.87%	6.20%	9.30%
36	4.35%	6.53%	1.94%	2.91%	6.29%	9.44%
37	4.42%	6.63%	1.97%	2.96%	6.39%	9.59%
38	4.49%	6.73%	2.00%	3.00%	6.49%	9.73%
39	4.55%	6.83%	2.03%	3.05%	6.58%	9.88%

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

**General Tier 3 (Enhanced) Members' Contribution Rates for Members Receiving Benefits under 2% at 55 Formula
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates on or after January 1, 2011**

Entry Age	Calculated Under Recommended Assumptions					
	Basic		COLA		Total	
	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
40	4.62%	6.93%	2.06%	3.09%	6.68%	10.02%
41	4.69%	7.04%	2.09%	3.14%	6.78%	10.18%
42	4.77%	7.15%	2.13%	3.19%	6.90%	10.34%
43	4.84%	7.26%	2.16%	3.24%	7.00%	10.50%
44	4.92%	7.38%	2.19%	3.29%	7.11%	10.67%
45	4.99%	7.49%	2.23%	3.34%	7.22%	10.83%
46	5.08%	7.62%	2.27%	3.40%	7.35%	11.02%
47	5.16%	7.74%	2.30%	3.45%	7.46%	11.19%
48	5.25%	7.87%	2.34%	3.51%	7.59%	11.38%
49	5.34%	8.01%	2.38%	3.57%	7.72%	11.58%
50	5.43%	8.15%	2.42%	3.63%	7.85%	11.78%
51	5.55%	8.32%	2.47%	3.71%	8.02%	12.03%
52	5.65%	8.48%	2.52%	3.78%	8.17%	12.26%
53	5.74%	8.61%	2.56%	3.84%	8.30%	12.45%
54	5.85%	8.77%	2.61%	3.91%	8.46%	12.68%
55	5.94%	8.91%	2.65%	3.97%	8.59%	12.88%
56	5.97%	8.96%	2.67%	4.00%	8.64%	12.96%
57	5.97%	8.96%	2.67%	4.00%	8.64%	12.96%
58	5.95%	8.93%	2.65%	3.98%	8.60%	12.91%
59	5.75%	8.62%	2.56%	3.84%	8.31%	12.46%
60	5.75%	8.62%	2.56%	3.84%	8.31%	12.46%

Interest:

7.75%

Salary Increase:

See Exhibit IV.

COLA Loading:

44.59%

Mortality:

RP-2000 Combined Healthy Mortality Table (30% Male and 70% Female, with ages set back three years for males and two years for females)

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

**Safety Tier A (Non-enhanced) Members' Contribution Rates for Members Not Receiving Benefits under 3% at 50
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates on or after January 1, 2011**

Calculated Under Recommended Assumptions			
Entry Age	Basic	COLA	Total
15	7.99%	4.44%	12.43%
16	7.99%	4.44%	12.43%
17	7.99%	4.44%	12.43%
18	7.99%	4.44%	12.43%
19	7.99%	4.44%	12.43%
20	7.99%	4.44%	12.43%
21	7.99%	4.44%	12.43%
22	8.11%	4.51%	12.62%
23	8.24%	4.58%	12.82%
24	8.36%	4.65%	13.01%
25	8.49%	4.72%	13.21%
26	8.62%	4.79%	13.41%
27	8.74%	4.86%	13.60%
28	8.88%	4.94%	13.82%
29	9.01%	5.01%	14.02%
30	9.15%	5.09%	14.24%
31	9.29%	5.17%	14.46%
32	9.43%	5.24%	14.67%
33	9.58%	5.33%	14.91%
34	9.73%	5.41%	15.14%
35	9.88%	5.49%	15.37%
36	10.04%	5.58%	15.62%
37	10.20%	5.67%	15.87%
38	10.38%	5.77%	16.15%
39	10.55%	5.87%	16.42%
40	10.75%	5.98%	16.73%
41	10.93%	6.08%	17.01%
42	11.17%	6.21%	17.38%
43	11.40%	6.34%	17.74%

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

**Safety Tier A (Non-enhanced) Members' Contribution Rates for Members Not Receiving Benefits under 3% at 50
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates on or after January 1, 2011**

Calculated Under Recommended Assumptions

Entry Age	Basic	COLA	Total
44	11.68%	6.49%	18.17%
45	11.88%	6.61%	18.49%
46	11.91%	6.62%	18.53%
47	11.86%	6.59%	18.45%
48	11.77%	6.54%	18.31%
49	11.65%	6.48%	18.13%
50	11.65%	6.48%	18.13%
51	11.65%	6.48%	18.13%
52	11.65%	6.48%	18.13%
53	11.65%	6.48%	18.13%
54	11.65%	6.48%	18.13%
55	11.65%	6.48%	18.13%
56	11.65%	6.48%	18.13%
57	11.65%	6.48%	18.13%
58	11.65%	6.48%	18.13%
59	11.65%	6.48%	18.13%
60	11.65%	6.48%	18.13%

Interest:

7.75%

Salary Increase: See Exhibit IV.

COLA Loading: 55.60%

Mortality: RP-2000 Combined Healthy Mortality Table (85% Male and 15% Female, with ages set back three years for males and two years for females)

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

**Safety Tier A (Enhanced) Members' Contribution Rates for Members Receiving Benefits under 3% at 50 Formula
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates on or after January 1, 2011**

Calculated Under Recommended Assumptions

Entry Age	Basic	COLA	Total
15	7.99%	5.56%	13.55%
16	7.99%	5.56%	13.55%
17	7.99%	5.56%	13.55%
18	7.99%	5.56%	13.55%
19	7.99%	5.56%	13.55%
20	7.99%	5.56%	13.55%
21	7.99%	5.56%	13.55%
22	8.11%	5.64%	13.75%
23	8.24%	5.73%	13.97%
24	8.36%	5.81%	14.17%
25	8.49%	5.90%	14.39%
26	8.62%	5.99%	14.61%
27	8.74%	6.08%	14.82%
28	8.88%	6.18%	15.06%
29	9.01%	6.27%	15.28%
30	9.15%	6.36%	15.51%
31	9.29%	6.46%	15.75%
32	9.43%	6.56%	15.99%
33	9.58%	6.66%	16.24%
34	9.73%	6.77%	16.50%
35	9.88%	6.87%	16.75%
36	10.04%	6.98%	17.02%
37	10.20%	7.09%	17.29%
38	10.38%	7.22%	17.60%
39	10.55%	7.34%	17.89%
40	10.75%	7.48%	18.23%
41	10.93%	7.60%	18.53%
42	11.17%	7.77%	18.94%
43	11.40%	7.93%	19.33%

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

**Safety Tier A (Enhanced) Members' Contribution Rates for Members Receiving Benefits under 3% at 50 Formula
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates on or after January 1, 2011**

Calculated Under Recommended Assumptions

Entry Age	Basic	COLA	Total
44	11.68%	8.12%	19.80%
45	11.88%	8.26%	20.14%
46	11.91%	8.28%	20.19%
47	11.86%	8.25%	20.11%
48	11.77%	8.18%	19.95%
49	11.65%	8.10%	19.75%
50	11.65%	8.10%	19.75%
51	11.65%	8.10%	19.75%
52	11.65%	8.10%	19.75%
53	11.65%	8.10%	19.75%
54	11.65%	8.10%	19.75%
55	11.65%	8.10%	19.75%
56	11.65%	8.10%	19.75%
57	11.65%	8.10%	19.75%
58	11.65%	8.10%	19.75%
59	11.65%	8.10%	19.75%
60	11.65%	8.10%	19.75%

Interest:

7.75%

Salary Increase: See Exhibit IV.

COLA Loading:

69.54%

Mortality:

RP-2000 Combined Healthy Mortality Table (85% Male and 15% Female, with ages set back three years for males and two years for females)

These rates exclude up to an extra 9% of compensation (depending on their MOU) that most Safety Tier A (Enhanced) members contribute that reduces the employer's contribution rate.

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

**Safety Tier C (Enhanced) Members' Contribution Rates for Members Receiving Benefits under 3% at 50 Formula
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates on or after January 1, 2011**

Calculated Under Recommended Assumptions			
Entry Age	Basic	COLA	Total
15	7.62%	3.14%	10.76%
16	7.62%	3.14%	10.76%
17	7.62%	3.14%	10.76%
18	7.62%	3.14%	10.76%
19	7.62%	3.14%	10.76%
20	7.62%	3.14%	10.76%
21	7.62%	3.14%	10.76%
22	7.73%	3.19%	10.92%
23	7.85%	3.24%	11.09%
24	7.97%	3.29%	11.26%
25	8.09%	3.34%	11.43%
26	8.21%	3.39%	11.60%
27	8.34%	3.44%	11.78%
28	8.46%	3.49%	11.95%
29	8.59%	3.54%	12.13%
30	8.72%	3.60%	12.32%
31	8.85%	3.65%	12.50%
32	8.99%	3.71%	12.70%
33	9.13%	3.77%	12.90%
34	9.27%	3.82%	13.09%
35	9.42%	3.89%	13.31%
36	9.57%	3.95%	13.52%
37	9.73%	4.01%	13.74%
38	9.89%	4.08%	13.97%
39	10.05%	4.15%	14.20%
40	10.24%	4.23%	14.47%
41	10.44%	4.31%	14.75%
42	10.64%	4.39%	15.03%

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

**Safety Tier C (Enhanced) Members' Contribution Rates for Members Receiving Benefits under 3% at 50 Formula
(Expressed as a Percentage of Monthly Payroll)
For Members with Membership Dates on or after January 1, 2011**

Calculated Under Recommended Assumptions

Entry Age	Basic	COLA	Total
43	10.82%	4.46%	15.28%
44	10.96%	4.52%	15.48%
45	10.98%	4.53%	15.51%
46	10.93%	4.51%	15.44%
47	10.69%	4.41%	15.10%
48	11.07%	4.57%	15.64%
49	11.65%	4.81%	16.46%
50	11.65%	4.81%	16.46%
51	11.65%	4.81%	16.46%
52	11.65%	4.81%	16.46%
53	11.65%	4.81%	16.46%
54	11.65%	4.81%	16.46%
55	11.65%	4.81%	16.46%
56	11.65%	4.81%	16.46%
57	11.65%	4.81%	16.46%
58	11.65%	4.81%	16.46%
59	11.65%	4.81%	16.46%
60	11.65%	4.81%	16.46%

Interest: 7.75%

Salary Increase: See Exhibit IV.

COLA Loading: 41.26%

Mortality: RP-2000 Combined Healthy Mortality Table (85% Male and 15% Female, with ages set back three years for males and two years for females)

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