

**Contra Costa County Employees'
Retirement Association**

*Actuarial Valuation and Review
as of December 31, 2002*

Revised September 15, 2003

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September 15, 2003

*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 revised Actuarial Valuation and Review as of December 31, 2002. This revision incorporates a change in the employer and member contribution rates resulting from additional information gathered from the prior actuary subsequent to the release of our August 5, 2003 report. The report summarizes the actuarial data used in the valuation, establishes the funding requirements for the fiscal year beginning July 1, 2004 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, 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 look forward to reviewing this report at your next meeting and to answering any questions.

Sincerely,


THE SEGAL COMPANY

By:



Paul Angelo, FSA, MAAA, FCA
Vice President and Actuary

JON/mep



Drew James, FSA, MAAA
Consulting Actuary

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

Purpose

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, 2002. 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, vested terminated members, and retired members and beneficiaries as of December 31, 2002, provided by the Association's staff;
- The assets of the Plan as of December 31, 2002, provided by the Association's staff (and modified as explained later in this summary);
- Economic assumptions regarding future salary increases and investment earnings; and
- Other actuarial assumptions, regarding employee terminations, retirement, death, etc.

Significant Issues in Valuation Year

Contra Costa County Employee's Retirement Association's basic financial goal is to establish contributions which fully fund the system's liabilities, and which, 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 Employee's Retirement Association has been prepared as of December 31, 2002 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 unaudited financial information provided to us by the Association's staff. This information has not been audited by us, but it has been reviewed and found to be consistent, both internally and with prior year's information.

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. At its March 2003 meeting, the Board of Retirement elected to amortize the Association's unfunded actuarial accrued over a decreasing 20-year period.

The rates calculated in this report may be adopted by the Board for July 1, 2004 through June 30, 2005.

The ratio of actuarial value of assets to actuarial accrued liabilities increased from 84.8% to 89.6% as a result of this valuation.

Paulson Court Settlement

As a result of the Paulson court settlement, the Retirement Board has begun to recognize additional pay elements as Earnable Compensation. The additional pay elements recognized as Earnable Compensation included items which are not known until a member retires ("terminal pay" items). As a result, it is necessary to include an assumption to anticipate terminal pay for members who have not yet retired.

At its November 2, 1999 meeting, the Board adopted terminal pay assumptions for active members. To avoid creating an inequity among members, there will be no change in member basic benefit contribution rates as a result of the new terminal pay assumptions. The inequities could occur as a result of the considerable differences in terminal pay policies among participants' employers, as well as the likelihood of considerable variation in terminal pay that will be received by individual members.

A further impact of the Paulson settlement is the additional benefits to be paid to members of the Association who were retired at the time the decision was rendered. These retired members have received the following additional benefits, based on the litigation settlement agreement between the Association's sponsoring employers and retirees who were party to the litigation:

- Retroactive benefits to as far back as 1994; plus
- Increased future benefits

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

The Association has now determined these additional benefits. As part of the settlement, the Board designated \$90 million of assets to provide for the resulting additional liabilities. An additional \$25,116,014 in interest accrued on the \$90 million designation through December 31, 2002. As the revised benefits were calculated, the funds to cover the increased benefits were transferred from the designated funds. At the time of this valuation, the prior actuary determined that an additional \$34,230,204 would be necessary to pay the lump sum retroactive payments plus the present value of future payments due after December 31, 2002. This amount will be charged to employers in addition to the contribution rates required by this actuarial valuation.

Experience Analysis

Except where noted, the results of this study are based on actuarial assumptions and procedures adopted by the Board pursuant to the prior actuary's experience analysis as of December 31, 2000.

In that study, the prior actuary reviewed and recommended the demographic assumptions and procedures for the annual actuarial valuations.

The Retirement Board adopted all of the prior actuary's recommendations except:

- (a) Service from unused sick leave conversion – members are allowed to convert unused sick leave to service credit at retirement. Currently, such service is not recognized in the actuarial valuation until it is actually converted at retirement.

Although the prior actuary recommended that "sick leave service" be pre-funded during a member's active working years, the Board decided not to pre-fund but to continue the current practice of funding the conversions at retirement.

- (b) Post-Retirement Morality – The prior actuary recommended a change to the mortality tables for retired female General and Safety members to reflect lower than expected deaths over the experience study period. The Board decided not to use the recommended mortality tables.

Both of these items will be revisited as part of the December 31, 2003 experience analysis.

Three other issues will also need to be reviewed as part of the December 31, 2003 experience analysis.

- (c) A full review of the cost sharing provisions currently incorporated into the contribution rate-setting process.

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

- (d) A review of the assumed percentage of members who will have a survivor benefit continued to an "eligible surviving spouse" considering that the term "eligible surviving spouse" includes all spouses married to the member within one year of the member's death (as opposed to the member's date of retirement).
- (e) The Association recently extended the delay between its valuation date and the implementation of the resultant rates from 12 to 18 months. In past years, no adjustment to the rates has been made to reflect delays. This issue should be revisited with the longer delay.

The contribution rates provided in this report are based on the 8.00% investment return assumption adopted by the Board in April 2003.

Benefit Changes

The following is a list of benefit Plan changes since the December 31, 2001 valuation:

- (a) The introduction of benefit levels under Government Code Sections 31676.16 and 31664.1;
- (b) Members who retired prior to January 1, 1983 are entitled to an additional monthly benefit of \$200.

The contribution rates necessary to fund the "enhanced" benefits in (a) were adopted by the Board subsequent to a November 2002 study prepared by the prior actuary, and are included in the December 31, 2001 valuation contribution rates in this report.

The Board transferred \$22,955,000 in October 2002 to offset the additional liabilities from item (b).

Pension Obligation Bond

In April 2003 the County issued \$322,710,000 of Pension Obligation Bonds to finance an Unfunded Actuarial Liability (UAAL) of \$319,094,714. This County UAAL was the amount determined by the prior actuary in its November 2002 benefit enhancement study. The net proceeds (after expenses) from the Pension Obligation Bonds (settled in May 2003) were used to reduce the County's UAAL in this valuation.

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

San Ramon Fire District

Upon its early adoption of the benefit formula under Government Code Section 31664.1, the San Ramon Fire District was billed \$2,290,000 in addition to the contribution rates required in the prior actuary's November 2002 benefit enhancement study. This amount was unpaid as of December 31, 2002 and was included as a contribution receivable in the Association's valuation assets as of that date.

Impact of Future Experience on Contribution Rates

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

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

As indicated on page 6 of this valuation report, the total unrecognized investment loss as of December 31, 2002 is over \$753 million. This investment loss will be recognized in the determination of the actuarial value of asset for funding purposes in the next few years. It should be understood that earning the assumed rate of investment return of 8.00% per year on a **market value** basis will result in investment losses on the actuarial value of assets in the next few years, due to the existence of the current unrecognized investment losses. Therefore, if the actual market return is equal to the assumed 8.00% rate and all other actuarial assumptions are fully realized, we would anticipate a significant increase in the scheduled cost requirements in each of the next few years.

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

Summary of Key Valuation Results

	December 31, 2002		December 31, 2001	
Employer Contribution Rates (County and District combined):				
	Total Rate	Estimated Annual Amount*	Total Rate	Estimated Annual Amount*
General Tier 1 Non-enhanced	25.48%	\$7,839,000	26.54%	\$8,165,000
General Tier 1 Enhanced	18.99%	14,466,000	21.75%	16,563,000
General Tier 2	13.99%	2,193,000	14.88%	2,332,000
General Tier 3 Non-enhanced	16.78%	2,444,000	15.07%	2,195,000
General Tier 3 Enhanced	17.94%	56,008,000	17.89%	55,852,000
Safety Non-enhanced	32.40%	1,168,000	32.45%	1,170,000
Safety Enhanced	38.53%	49,105,000	42.61%	54,300,000
All Employers combined	22.95%	\$133,223,000	24.22%	\$140,577,000
Average Member Contribution Rates:				
	Total Rate	Estimated Annual Amount*	Total Rate	Estimated Annual Amount*
General Tier 1 Non-enhanced	6.65%	\$2,046,000	5.75%	\$1,769,000
General Tier 1 Enhanced	5.20%	3,961,000	5.51%	4,196,000
General Tier 2	2.83%	443,000	2.71%	425,000
General Tier 3 Non-enhanced	6.00%	875,000	5.22%	761,000
General Tier 3 Enhanced	5.86%	18,289,000	5.03%	15,703,000
Safety Non-enhanced	8.56%	309,000	7.75%	279,000
Safety Enhanced	9.63%	12,276,000	9.08%	11,572,000
All Categories Combined	6.58%	\$38,199,000	5.98%	\$34,705,000
Refundability Factors				
	Enhanced	Non-enhanced	Enhanced	Non-enhanced
General Tier 1	.9975	.9971	.9911	.9929
General Tier 2	N/A	.9868	N/A	.8938
General Tier 3	.9952	.9999	.9848	.9921
Safety	.9972	.9961	.9740	.9785
Funded Status:				
Actuarial accrued liability	\$3,677,624,000		\$3,200,272,000	
Valuation value of assets	\$3,296,736,000**		\$2,713,220,000	
Funded percentage	89.6%		84.8%	
UAAL	\$380,888,000		\$487,052,000	
Key Assumptions:				
Interest rate	8.00%		8.35%	
Inflation rate	4.25%		4.25%	

* Based on December 31, 2002 projected annual payroll.

** Includes proceeds of \$319,094,714 from Pension Obligation Bonds issued by the County in May 2003.

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

Summary of Key Valuation Demographic and Financial Data

	December 31, 2002	December 31, 2001	Percentage Change
Active Members:			
Number of members	9,611	9,229	4.1%
Average age	44.9	44.4	N/A
Average service	9.7	9.3	N/A
Projected total compensation	\$580,415,000	\$523,621,000	10.8%
Average projected compensation	\$60,391	\$56,736	6.4%
Retired Member and Beneficiaries: ⁽¹⁾			
Number of members:			
Service retired	3,781	3,690	2.5%
Disability retired	835	818	2.1%
Beneficiaries	1,003	979	2.5%
Total	5,619	5,487	2.4%
Average age	69.0	68.4	N/A
Average Monthly Benefit	\$2,195	\$2,003	9.6%
Vested Terminated Members and QDRO Beneficiaries:			
Number of terminated vested members	1,067	955	11.7%
Average age	46.4	46.0	N/A
Summary of Financial Data (all dollar amounts in thousands):			
Market value of assets	\$2,402,058 ⁽²⁾	\$2,704,729	-11.2%
Return on market value of assets	-10.28%	-4.23%	N/A
Actuarial value of assets	\$3,155,472 ⁽²⁾	\$3,090,177	2.1%
Return on actuarial value of assets	8.53%	9.73%	N/A
Valuation assets	\$2,977,642 ⁽²⁾	\$2,613,220	13.9%
Return on valuation assets	3.05%	7.92%	N/A

(1) December 31, 2001 numbers have been adjusted to reflect a single record for members receiving benefit payments from multiple tiers.

(2) The asset values shown include \$2,290,000 of additional contribution receivable for San Ramon Fire District and \$34,230,204 additional contribution receivable for the final Paulson Settlement.

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 three valuations can be seen in this chart.

CHART 1
Member Population: 2000 – 2002

Year Ended December 31	Active Members	Vested Terminated Members	Retired Members and Beneficiaries ⁽¹⁾	Ratio of Non-Actives to Actives
2000	8,884	877	5,245	0.69
2001	9,229	955	5,487	0.70
2002	9,611	1,067	5,619	0.70

(1) The December 31, 2001 and December 31, 2000 numbers have been adjusted to reflect a single record for members receiving benefit payments from multiple tiers.

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 9,611 active members with an average age of 44.9, average years of service of 9.7 years and average compensation of \$60,391. The 9,229 active members in the prior valuation had an average age of 44.4, average service of 9.3 years and average compensation of \$56,736.

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

Inactive Members

In this year's valuation, there were 1,067 members with a vested right to a deferred or immediate vested benefit or entitled to a return of their employee contributions versus 955 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, 2002

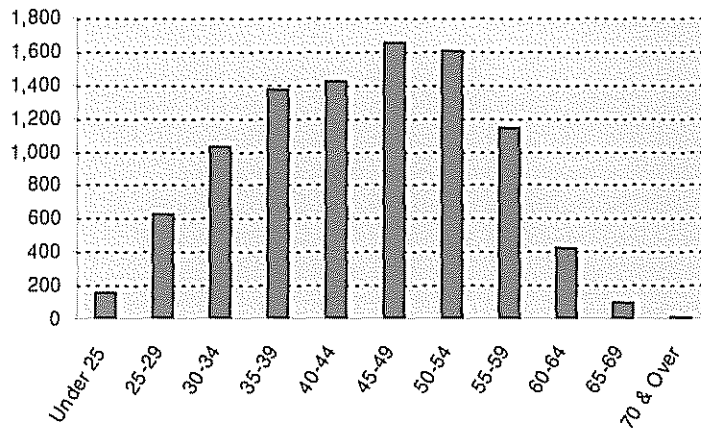
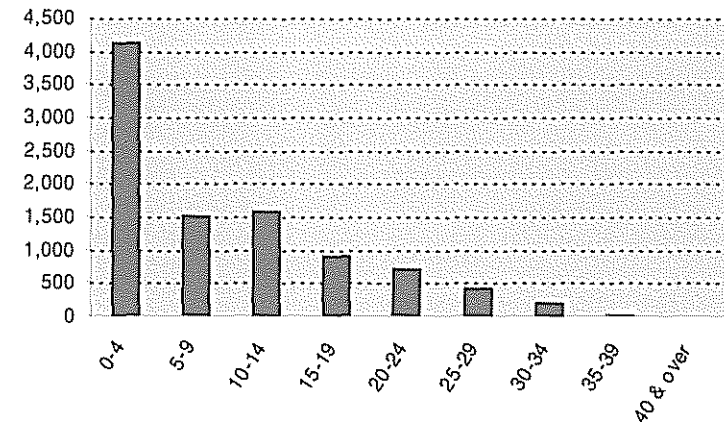


CHART 3

Distribution of Active Members by Years of Service as of December 31, 2002



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

Retired Members and Beneficiaries

As of December 31, 2002, 4,616 retired members and 1,003 beneficiaries were receiving total monthly benefits of \$12,327,165. For comparison, in the previous valuation, there were 4,508 retired members and 979 beneficiaries receiving monthly benefits of \$11,007,750.

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, 2002

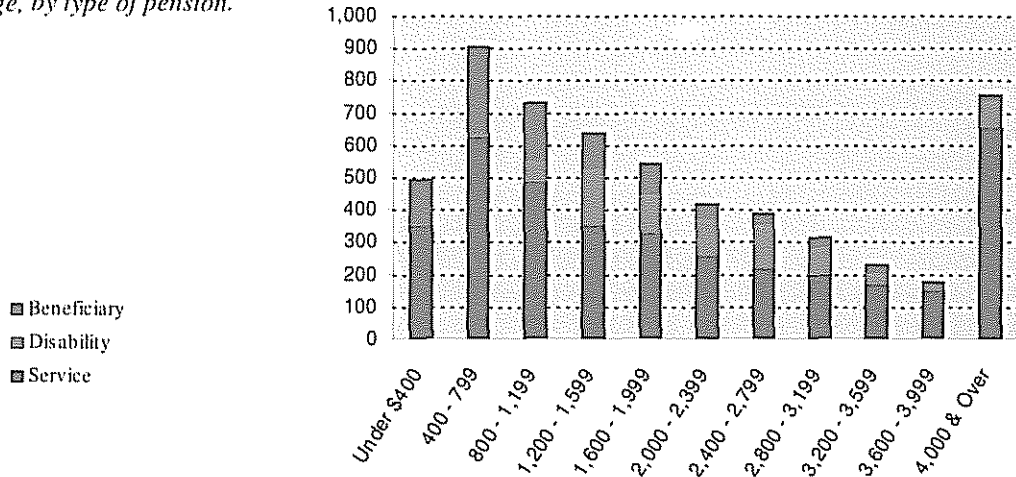
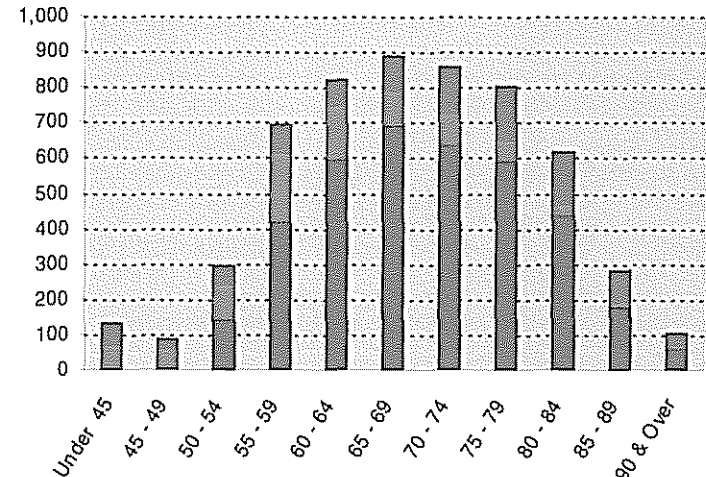


CHART 5
Distribution of Retired Members and Beneficiaries by Type and by Age as of December 31, 2002



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

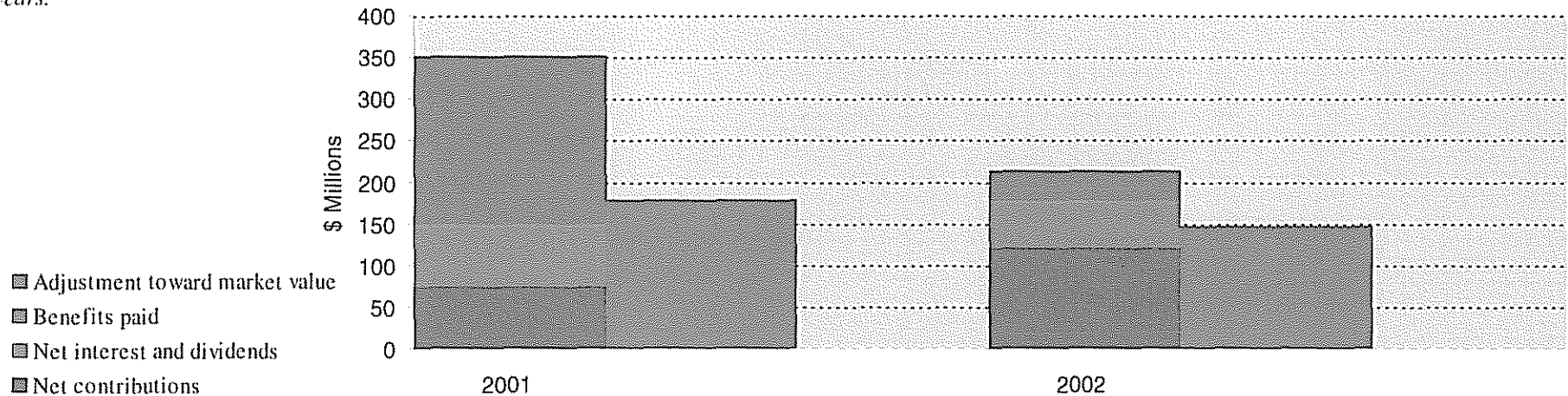
B. FINANCIAL INFORMATION

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.

The chart depicts the components of changes in the actuarial value of assets over the last two years.

CHART 6
Comparison of Increases and Decreases in the Actuarial Value of Assets for Years Ended December 31



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

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

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

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

CHART 7
Actuarial Value of Assets

MARKET STABILIZATION DESIGNATION (DEFERRED RETURN) AND ACTUARIAL VALUE OF ASSETS AS OF DECEMBER 31, 2

I. Deferred amounts:

<u>From Period:</u>	<u>Remaining Amount:</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
1 Dec-98	(\$1,539,925)	(1,539,925)				
2 Jun-99	\$17,334,161	17,334,161				
3 Dec-99	\$23,132,298	15,421,532	7,710,766			
4 Jun-00	(\$36,540,606)	(18,270,303)	(18,270,303)			
5 Dec-00	(\$71,612,627)	(28,645,051)	(28,645,051)	(14,322,525)		
6 Jun-01	(\$125,035,039)	(41,678,346)	(41,678,346)	(41,678,346)		
7 Dec-01	(\$131,088,647)	(37,453,899)	(37,453,899)	(37,453,899)	(18,726,950)	
8 Jun-02	(\$185,907,125)	(46,476,781)	(46,476,781)	(46,476,781)	(46,476,781)	
9 Dec-02	<u>(\$242,156,379)</u>	<u>(53,812,529)</u>	<u>(53,812,529)</u>	<u>(53,812,529)</u>	<u>(53,812,529)</u>	<u>(26,906,264)</u>
	<u>(\$753,413,889)</u>	<u>(\$195,121,141)</u>	<u>(\$218,626,143)</u>	<u>(\$193,744,080)</u>	<u>(\$119,016,260)</u>	<u>(\$26,906,264)</u>

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

Actuarial Value of Assets (continued)

<u>II. Unrestricted Designation</u>	
Per December 31, 2002 Financial Statement:	\$0
<u>III. Current (preliminary) Contingency Balances</u>	
Per December 31, 2002 Financial Statement:	
Statutory Contingency Designation (1%)	\$26,824,217
<u>Board Designated Contingency</u>	
Board Designated (1%)	\$26,824,217
Excess Earnings from December 31, 2000 and 2001	\$105,677,000
TOTAL:	<u>\$132,501,217</u>
<u>IV. Actuarial Value of Assets*</u>	
1. Market Value of Assets	\$2,402,057,627
2. Deferred Return (from I)	(\$753,413,889)
3. Actuarial Value of Assets (1. - 2.)	\$3,155,471,516
4. Non Valuation Reserves and Designations:	
a. Unrestricted Designation (from II)	\$0
b. Statutory Contingency Reserve (from III)	\$26,824,217
c. Board Designated Contingency (from III)	\$132,501,217
d. Supplemental Reserves	\$11,855,515
e. Actuarial Transfer Designation	\$6,649,000
f. Subtotal	\$177,829,949
5. Valuation Assets (3. -4f.)	<u>\$2,977,641,567</u>

**Note: All values of Assets include \$2,290,000 of additional contribution receivable for San Ramon Fire District and \$34,230,204 additional contribution receivable for the final Paulson Settlement. Does not include May 2003 Pension Obligation Bond proceeds.*

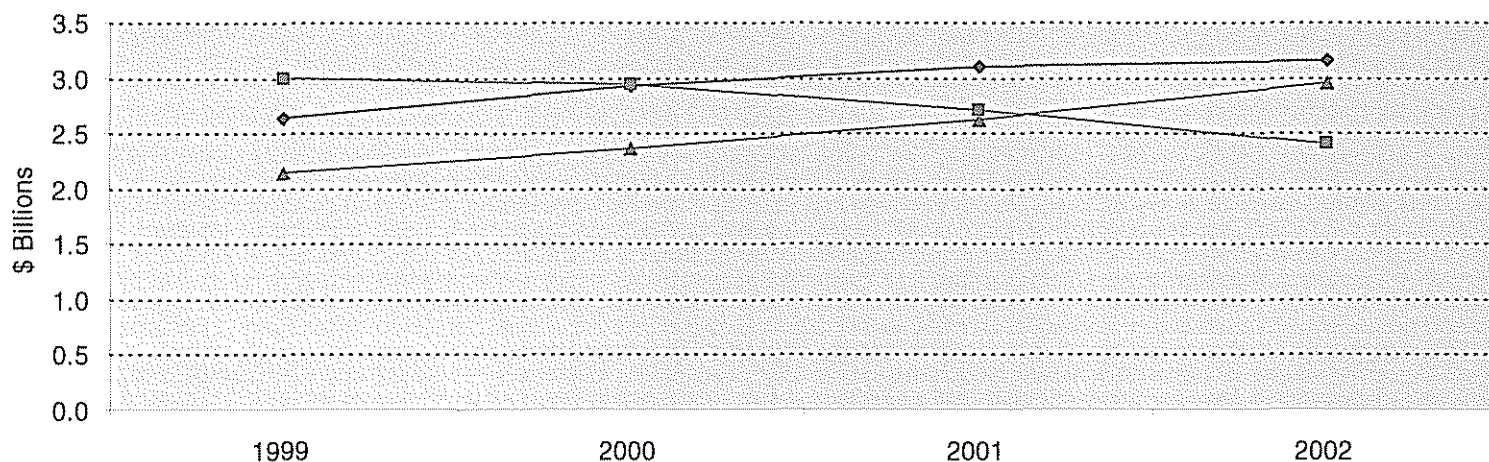
SECTION 2: Valuation Results for the Contra Costa County Employees' Retirement Association

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 asset value 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 four years.

CHART 8
Relative values of Market Value, Actuarial Value and Valuation Value of Assets for Years Ended December 31, 1999 – 2002



- ◆ Actuarial Value
- Market Value
- ▲ Valuation Value

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 \$59.9 million, \$4.7 million gain from investments and \$64.6 million loss from all other sources. The net experience variation from individual sources other than investments was 1.9% of the beginning of year actuarial accrued liability. A discussion of the major components of the actuarial experience is on the following pages.

CHART 9

Actuarial Experience for Year Ended December 31, 2002 (all dollar amounts in thousands)

1. Net gain/(loss) from investments*	\$4,667
2. Net gain/(loss) from other experience	\$(64,572)
3. Net experience gain/(loss): (1) + (2)	\$(59,905)

* Details in Chart 10

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 is 8.35%. The rate of return on Actuarial Value for the 2002 plan year was 3.05%.

Since the actual return for the year was less than the assumed return, the Plan experienced an actuarial loss on Actuarial Value during the year ended December 31, 2002. However, non-valuation reserves from prior years were used to make up for the loss, so that the Valuation Value of assets showed a small gain (due to semi-annual compounding of interest.)

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

CHART 10

Investment Experience for Year Ended December 31, 2002 – Valuation Value and Actuarial Value of Assets

	Valuation Value	Actuarial Value
1. Return	\$227,080,187	\$93,144,770
2. Average value of assets	2,663,630,721	3,057,991,810
3. Rate of return: (1) ÷ (2)	8.53%	3.05%
4. Assumed rate of return	8.35%	8.35%
5. Expected return: (2) x (4)	222,413,165	255,342,316
6. Gain/(loss): (1) – (5)	<u>\$4,667,022</u>	<u>\$(162,197,546)</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 two years.

Based upon this experience, future expectations and discussions with the Board, we have changed the assumed rate of return to 8.00%.

CHART 11

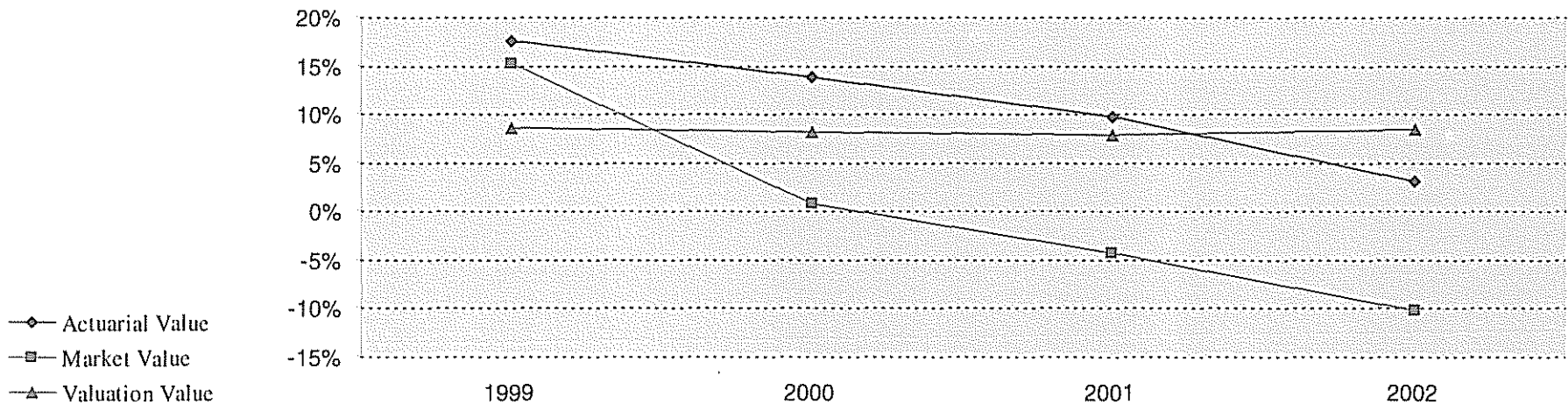
Investment Return – Actuarial Value, Valuation Value and Market Value: 2001-2002




Year Ended December 31	Net Interest and Dividend Income		Recognition of Capital Appreciation		Actuarial Value Investment Return		Valuation Value Investment Return		Market Value Investment Return	
	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent
2001	\$76,220,001	2.66%	\$202,526,527	7.07%	\$278,746,528	9.73%	\$186,188,249	7.92%	(\$121,804,662)	(4.23%)
2002	\$56,541,202	1.85%	\$36,603,568	1.20%	\$93,144,770	3.05%	\$227,080,187	8.53%	(\$274,820,794)	(10.28%)
Total	\$132,761,203		\$239,130,095		\$371,891,298		\$413,268,436		(\$396,625,456)	

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 12
Market and Actuarial Rates of Return for Years Ended December 31, 1999 - 2002





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.

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 which, 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)

That annual contribution rate which, 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 unfunded actuarial accrued liability) is calculated to remain as a level percentage of future active member payroll (including payroll for new members as they enter the association) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments (credits) are scheduled to increase at the annual inflation rate of 4.25% along with expected payroll. The current UAAL is being recognized over a 20-year declining period effective January 1, 2003.

The recommended employer contributions are provided on Charts 13 and 14.



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

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; 40% of the Tier 1 Non-enhanced member's contribution rate (using three-year Final Average Salary) for General Tier 2 members; and Safety Non-enhanced members pay for an annuity at age 50 equal to 1/100 of one year Final Average Salary per year of service. The annuity is equal to 1/120 of one year Final Average Salary per year of service at age 60 for General Tier 1 and Tier 3 Enhanced members; and Safety Enhanced members pay for an annuity at age 50 equal to 1/100 of one year Final Average salary per year of service. Member contributions are accumulated at an annual interest rate adopted semiannually by the Board. The County is now paying 50% of the members' basic contributions on a nonrefundable basis. Districts pay up to 100% of the members' basic contributions on a nonrefundable basis. Members also pay 50% of the cost-of-living benefit. The member contribution rates are provided in Appendix A.

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

CHART 13
Comparison of Average Employer Contribution Rates
Employer Rates Under Current Assumptions for January 1, 2003 through June 30, 2004

4.25%, 8.35% Interest and 5.71% Salary Scale Assumptions
 (16 Year Amortization Period as of December 31, 2001)

	Non-Enhanced							
	County				Districts			
	Normal Cost	+	UAAL	= Total	Normal Cost	+	UAAL	= Total
General Tier 1 (Aggregate)								
Basic	10.49%		1.41%	= 11.90%	10.49%		6.29%	= 16.78%
Subvention	2.80%		0.00%	= 2.80%	2.80%		0.00%	= 2.80%
Basic + Subvention	13.29%		1.41%	= 14.70%	13.29%		6.29%	= 19.58%
COL	2.67%		2.69%	= 5.36%	2.67%		4.72%	= 7.39%
Total	15.96%		4.10%	= 20.06%	15.96%		11.01%	= 26.97%
General Tier 1 (Under \$350)								
Basic	7.15%		0.97%	= 8.12%	7.15%		4.30%	= 11.45%
Subvention	1.90%		0.00%	= 1.90%	1.90%		0.00%	= 1.90%
Basic + Subvention	9.05%		0.97%	= 10.02%	9.05%		4.30%	= 13.35%
COL	1.83%		1.82%	= 3.65%	1.83%		3.22%	= 5.05%
Total	10.88%		2.79%	= 13.67%	10.88%		7.52%	= 18.40%
General Tier 1 (Over \$350)								
Basic	10.72%		1.45%	= 12.17%	10.72%		6.44%	= 17.16%
Subvention	2.86%		0.00%	= 2.86%	2.86%		0.00%	= 2.86%
Basic + Subvention	13.58%		1.45%	= 15.03%	13.58%		6.44%	= 20.02%
COL	2.74%		2.74%	= 5.48%	2.74%		4.83%	= 7.57%
Total	16.32%		4.19%	= 20.51%	16.32%		11.27%	= 27.59%

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

CHART 13 (continued)

Employer Rates Under Current Assumptions for January 1, 2003 through June 30, 2004

4.25%, 8.35% Interest and 5.71% Salary Scale Assumptions
(16 Year Amortization Period as of December 31, 2001)

	Non-Enhanced							
	County				Districts			
	Normal Cost	+	UAAL	= Total	Normal Cost	+	UAAL	= Total
General Tier 2								
Basic	6.00%		2.86%	8.86%	6.00%		6.77%	12.77%
Subvention	1.19%		0.00%	1.19%	1.19%		0.00%	1.19%
Basic + Subvention	7.19%		2.86%	10.05%	7.19%		6.77%	13.96%
COL	1.85%		2.69%	4.54%	1.85%		4.72%	6.57%
Total	9.04%		5.55%	14.59%	9.04%		11.49%	20.53%
Safety								
Basic	12.98%		0.82%	13.80%	12.98%		5.46%	18.44%
Subvention	3.72%		0.00%	3.72%	3.72%		0.00%	3.72%
Basic + Subvention	16.70%		0.82%	17.52%	16.70%		5.46%	22.16%
COL	3.35%		2.17%	5.52%	3.35%		6.93%	10.28%
Total	20.05%		2.99%	23.04%	20.05%		12.39%	32.44%

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

CHART 13 (continued)
Employer Rates Under Current Assumptions for January 1, 2003 through June 30, 2004

4.25%, 8.35% Interest and 5.71% Salary Scale Assumptions
(16 Year Amortization Period as of December 31, 2001)

	Non-Enhanced							
	County				Districts			
	Normal Cost	+	UAAL	= Total	Normal Cost	+	UAAL	= Total
General Tier 3 (Aggregate)								
Basic	4.52%		2.65%	= 7.17%	4.52%		7.51%	= 12.03%
Subvention	3.23%		0.00%	= 3.23%	3.23%		0.00%	= 3.23%
Basic + Subvention	7.75%		2.65%	= 10.40%	7.75%		7.51%	= 15.26%
COL	1.83%		2.69%	= 4.52%	1.83%		4.86%	= 6.69%
Total	9.58%		5.34%	= 14.92%	9.58%		12.37%	= 21.95%
General Tier 3 (Under \$350)								
Basic	3.08%		1.82%	= 4.90%	3.08%		5.13%	= 8.21%
Subvention	2.20%		0.00%	= 2.20%	2.20%		0.00%	= 2.20%
Basic + Subvention	5.28%		1.82%	= 7.10%	5.28%		5.13%	= 10.41%
COL	1.25%		1.83%	= 3.08%	1.25%		3.32%	= 4.57%
Total	6.53%		3.65%	= 10.18%	6.53%		8.45%	= 14.98%
General Tier 3 (Over \$350)								
Basic	4.62%		2.72%	= 7.34%	4.62%		7.69%	= 12.31%
Subvention	3.30%		0.00%	= 3.30%	3.30%		0.00%	= 3.30%
Basic + Subvention	7.92%		2.72%	= 10.64%	7.92%		7.69%	= 15.61%
COL	1.88%		2.75%	= 4.63%	1.88%		4.98%	= 6.86%
Total	9.80%		5.47%	= 15.27%	9.80%		12.67%	= 22.47%

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

CHART 13 (continued)

Employer Rates Under Current Assumptions for January 1, 2003 through June 30, 2004

4.25%, 8.35% Interest and 5.71% Salary Scale Assumptions
(16 Year Amortization Period as of December 31, 2001)

	Enhanced							
	County				Districts			
	Normal Cost	+	UAAL	= Total	Normal Cost	+	UAAL	= Total
General Tier 1 (Aggregate)								
Basic	12.09%		1.20%	= 13.29%	12.09%		6.09%	= 18.18%
Subvention	2.40%		0.00%	= 2.40%	2.40%		0.00%	= 2.40%
Basic + Subvention	14.49%		1.20%	= 15.69%	14.49%		6.09%	= 20.58%
COL	2.94%		2.58%	= 5.52%	2.94%		4.60%	= 7.54%
Total	17.43%		3.78%	= 21.21%	17.43%		10.69%	= 28.12%
General Tier 1 (Under \$350)								
Basic	8.24%		0.82%	= 9.06%	8.24%		4.16%	= 12.40%
Subvention	1.63%		0.00%	= 1.63%	1.63%		0.00%	= 1.63%
Basic + Subvention	9.87%		0.82%	= 10.69%	9.87%		4.16%	= 14.03%
COL	2.01%		1.76%	= 3.77%	2.01%		3.14%	= 5.15%
Total	11.88%		2.58%	= 14.46%	11.88%		7.30%	= 19.18%
General Tier 1 (Over \$350)								
Basic	12.36%		1.23%	= 13.59%	12.36%		6.23%	= 18.59%
Subvention	2.45%		0.00%	= 2.45%	2.45%		0.00%	= 2.45%
Basic + Subvention	14.81%		1.23%	= 16.04%	14.81%		6.23%	= 21.04%
COL	3.01%		2.64%	= 5.65%	3.01%		4.71%	= 7.72%
Total	17.82%		3.87%	= 21.69%	17.82%		10.94%	= 28.76%

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

CHART 13 (continued)

Employer Rates Under Current Assumptions for January 1, 2003 through June 30, 2004

4.25%, 8.35% Interest and 5.71% Salary Scale Assumptions
(16 Year Amortization Period as of December 31, 2001)

	Enhanced							
	County				Districts			
	Normal Cost	+	UAAL	= Total	Normal Cost	+	UAAL	= Total
Safety								
Basic	17.87%		7.43%	25.30%	17.87%		12.06%	29.93%
Subvention	3.70%		0.00%	3.70%	3.70%		0.00%	3.70%
Basic + Subvention	21.57%		7.43%	29.00%	21.57%		12.06%	33.63%
COL	4.67%		5.35%	10.02%	4.67%		10.12%	14.79%
Total	26.24%		12.78%	39.02%	26.24%		22.18%	48.42%

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

CHART 13 (continued)

Employer Rates Under Current Assumptions for January 1, 2003 through June 30, 2004

4.25%, 8.35% Interest and 5.71% Salary Scale Assumptions
(16 Year Amortization Period as of December 31, 2001)

	Enhanced							
	County				Districts			
	Normal Cost	+	UAAL	= Total	Normal Cost	+	UAAL	= Total
General Tier 3 (Aggregate)								
Basic	7.43%		2.55%	= 9.98%	7.43%		7.31%	= 14.74%
Subvention	2.79%		0.00%	= 2.79%	2.79%		0.00%	= 2.79%
Basic + Subvention	10.22%		2.55%	= 12.77%	10.22%		7.31%	= 17.53%
COL	2.54%		2.58%	= 5.12%	2.54%		4.74%	= 7.28%
Total	12.76%		5.13%	= 17.89%	12.76%		12.05%	= 24.81%
General Tier 3 (Under \$350)								
Basic	5.07%		1.74%	= 6.81%	5.07%		5.00%	= 10.07%
Subvention	1.90%		0.00%	= 1.90%	1.90%		0.00%	= 1.90%
Basic + Subvention	6.97%		1.74%	= 8.71%	6.97%		5.00%	= 11.97%
COL	1.73%		1.76%	= 3.49%	1.73%		3.23%	= 4.96%
Total	8.70%		3.50%	= 12.20%	8.70%		8.23%	= 16.93%
General Tier 3 (Over \$350)								
Basic	7.60%		2.61%	= 10.21%	7.60%		7.49%	= 15.09%
Subvention	2.85%		0.00%	= 2.85%	2.85%		0.00%	= 2.85%
Basic + Subvention	10.45%		2.61%	= 13.06%	10.45%		7.49%	= 17.94%
COL	2.60%		2.64%	= 5.24%	2.60%		4.85%	= 7.45%
Total	13.05%		5.25%	= 18.30%	13.05%		12.34%	= 25.39%

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

CHART 13 (continued)

Employer Rates Under Current Assumptions for January 1, 2003 through June 30, 2004

Grand Total (Includes Both Enhanced and Non-enhanced – County and District)			
Basic	10.42%	4.10%	14.52%
Subvention	2.91%	0.00%	2.91%
Basic + Subvention	13.33%	4.10%	17.43%
COL	3.04%	3.75%	6.79%
Total	16.37%	7.85%	24.22%

Payroll	Tier 1		Tier 2	Tier 3		Safety		Total
	<u>Non-Enhanced</u>	<u>Enhanced</u>		<u>Non-Enhanced</u>	<u>Enhanced</u>	<u>Non-Enhanced</u>	<u>Enhanced</u>	
County	\$1,911,000	\$70,233,000	\$14,916,000	\$14,249,000	\$312,197,000	-	\$78,826,000	\$492,332,000
Districts	<u>28,853,000</u>	<u>5,924,000</u>	<u>761,000</u>	<u>318,000</u>	<u>-</u>	<u>\$3,605,000</u>	<u>48,622,000</u>	<u>88,083,000</u>
Total	\$30,764,000	\$76,157,000	\$15,677,000	\$14,567,000	\$312,197,000	\$3,605,000	\$127,448,000	\$580,415,000

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

CHART 14
Components of Recommended Employer Contribution Rates
Employer Rates Under Current Assumptions for July 1, 2004 through June 30, 2005

4.25%, 8.00% Interest and 5.71% Salary Scale Assumptions
 (20 Year Amortization Period as of December 31, 2002)

	Non - Enhanced							
	County				Districts			
	Normal Cost	+	UAAL	= Total	Normal Cost	+	UAAL	= Total
General Tier 1 (Aggregate)								
Basic	9.15%		1.53%	10.68%	9.15%		6.27%	15.42%
Subvention	3.31%		0.00%	3.31%	3.31%		0.00%	3.31%
Basic + Subvention	12.46%		1.53%	13.99%	12.46%		6.27%	18.73%
COL	2.68%		1.05%	3.73%	2.68%		4.59%	7.27%
Total	15.14%		2.58%	17.72%	15.14%		10.86%	26.00%
General Tier 1 (Under \$350)								
Basic	6.23%		1.04%	7.27%	6.23%		4.27%	10.50%
Subvention	2.26%		0.00%	2.26%	2.26%		0.00%	2.26%
Basic + Subvention	8.49%		1.04%	9.53%	8.49%		4.27%	12.76%
COL	1.83%		0.71%	2.54%	1.83%		3.14%	4.97%
Total	10.32%		1.75%	12.07%	10.32%		7.41%	17.73%
General Tier 1 (Over \$350)								
Basic	9.35%		1.56%	10.91%	9.35%		6.41%	15.76%
Subvention	3.38%		0.00%	3.38%	3.38%		0.00%	3.38%
Basic + Subvention	12.73%		1.56%	14.29%	12.73%		6.41%	19.14%
COL	2.75%		1.06%	3.81%	2.75%		4.70%	7.45%
Total	15.48%		2.62%	18.10%	15.48%		11.11%	26.59%

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

CHART 14 (continued)

Employer Rates Under Current Assumptions for July 1, 2004 through June 30, 2005

4.25%, 8.00% Interest and 5.71% Salary Scale Assumptions
(20 Year Amortization Period as of December 31, 2002)

	Non-Enhanced							
	County				Districts			
	Normal Cost	+	UAAL	= Total	Normal Cost	+	UAAL	= Total
General Tier 2								
Basic	7.16%		1.53%	= 8.69%	7.16%		6.27%	= 13.43%
Subvention	1.40%		0.00%	= 1.40%	1.40%		0.00%	= 1.40%
Basic + Subvention	8.56%		1.53%	= 10.09%	8.56%		6.27%	= 14.83%
COL	2.44%		1.06%	= 3.50%	2.44%		4.59%	= 7.03%
Total	11.00%		2.59%	= 13.59%	11.00%		10.86%	= 21.86%
Safety								
Basic					12.43%		4.89%	= 17.32%
Subvention					4.25%		0.00%	= 4.25%
Basic + Subvention					16.68%		4.89%	= 21.57%
COL					3.59%		7.23%	= 10.82%
Total					20.27%		12.12%	= 32.39%

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

CHART 14 (continued)

Employer Rates Under Current Assumptions for July 1, 2004 through June 30, 2005

4.25%, 8.00% Interest and 5.71% Salary Scale Assumptions
(20 Year Amortization Period as of December 31, 2002)

	Non-Enhanced							
	County				Districts			
	Normal Cost	+	UAAL	= Total	Normal Cost	+	UAAL	= Total
General Tier 3 (Aggregate)								
Basic	8.06%		1.58%	= 9.64%	8.06%		6.86%	= 14.92%
Subvention	3.50%		0.00%	= 3.50%	3.50%		0.00%	= 3.50%
Basic + Subvention	11.56%		1.58%	= 13.14%	11.56%		6.86%	= 18.42%
COL	2.37%		1.07%	= 3.44%	2.37%		4.69%	= 7.06%
Total	13.93%		2.65%	= 16.58%	13.93%		11.55%	= 25.48%
General Tier 3 (Under \$350)								
Basic	5.47%		1.07%	= 6.54%	5.47%		4.66%	= 10.13%
Subvention	2.38%		0.00%	= 2.38%	2.38%		0.00%	= 2.38%
Basic + Subvention	7.85%		1.07%	= 8.92%	7.85%		4.66%	= 12.51%
COL	1.61%		0.73%	= 2.34%	1.61%		3.18%	= 4.79%
Total	9.46%		1.80%	= 11.26%	9.46%		7.84%	= 17.30%
General Tier 3 (Over \$350)								
Basic	8.21%		1.61%	= 9.82%	8.21%		6.99%	= 15.20%
Subvention	3.57%		0.00%	= 3.57%	3.57%		0.00%	= 3.57%
Basic + Subvention	11.78%		1.61%	= 13.39%	11.78%		6.99%	= 18.77%
COL	2.41%		1.09%	= 3.50%	2.41%		4.77%	= 7.18%
Total	14.19%		2.70%	= 16.89%	14.19%		11.76%	= 25.95%

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

CHART 14 (continued)

Employer Rates Under Current Assumptions for July 1, 2004 through June 30, 2005

4.25%, 8.00% Interest and 5.71% Salary Scale Assumptions
(20 Year Amortization Period as of December 31, 2002)

	Enhanced							
	County				Districts			
	Normal Cost	+	UAAL	= Total	Normal Cost	+	UAAL	= Total
General Tier 1 (Aggregate)								
Basic	10.83%		1.16%	11.99%	10.83%		5.91%	16.74%
Subvention	2.38%		0.00%	2.38%	2.38%		0.00%	2.38%
Basic + Subvention	13.21%		1.16%	14.37%	13.21%		5.91%	19.12%
COL	3.08%		0.90%	3.98%	3.08%		4.43%	7.51%
Total	16.29%		2.06%	18.35%	16.29%		10.34%	26.63%
General Tier 1 (Under \$350)								
Basic	7.38%		0.79%	8.17%	7.38%		4.03%	11.41%
Subvention	1.62%		0.00%	1.62%	1.62%		0.00%	1.62%
Basic + Subvention	9.00%		0.79%	9.79%	9.00%		4.03%	13.03%
COL	2.10%		0.61%	2.71%	2.10%		3.02%	5.12%
Total	11.10%		1.40%	12.50%	11.10%		7.05%	18.15%
General Tier 1 (Over \$350)								
Basic	11.07%		1.19%	12.26%	11.07%		6.05%	17.12%
Subvention	2.43%		0.00%	2.43%	2.43%		0.00%	2.43%
Basic + Subvention	13.50%		1.19%	14.69%	13.50%		6.05%	19.55%
COL	3.15%		0.91%	4.06%	3.15%		4.53%	7.68%
Total	16.65%		2.10%	18.75%	16.65%		10.58%	27.23%

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

CHART 14 (continued)

Employer Rates Under Current Assumptions for July 1, 2004 through June 30, 2005

4.25%, 8.00% Interest and 5.71% Salary Scale Assumptions
(20 Year Amortization Period as of December 31, 2002)

	Enhanced									
	County					Districts				
	Normal Cost	+	UAAL	=	Total	Normal Cost	+	UAAL	=	Total
Safety										
Basic	18.74%		2.14%		20.88%	18.74%		10.08%		28.82%
Subvention	4.02%		0.00%		4.02%	4.02%		0.00%		4.02%
Basic + Subvention	22.76%		2.14%		24.90%	22.76%		10.08%		32.84%
COL	5.32%		2.45%		7.77%	5.32%		9.87%		15.19%
Total	28.08%		4.59%		32.67%	28.08%		19.95%		48.03%

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

CHART 14 (continued)

Employer Rates Under Current Assumptions for July 1, 2004 through June 30, 2005

4.25%, 8.00% Interest and 5.71% Salary Scale Assumptions
(20 Year Amortization Period as of December 31, 2002)

	Enhanced							
	County				Districts			
	Normal Cost	+	UAAL	= Total	Normal Cost	+	UAAL	= Total
General Tier 3 (Aggregate)								
Basic	10.11%		1.22%	11.33%	10.11%		6.49%	16.60%
Subvention	2.95%		0.00%	2.95%	2.95%		0.00%	2.95%
Basic + Subvention	13.06%		1.22%	14.28%	13.06%		6.49%	19.55%
COL	2.75%		0.91%	3.66%	2.75%		4.54%	7.29%
Total	15.81%		2.13%	17.94%	15.81%		11.03%	26.84%
General Tier 3 (Under \$350)								
Basic	6.87%		0.83%	7.70%	6.87%		4.44%	11.31%
Subvention	2.00%		0.00%	2.00%	2.00%		0.00%	2.00%
Basic + Subvention	8.87%		0.83%	9.70%	8.87%		4.44%	13.31%
COL	1.86%		0.62%	2.48%	1.86%		3.11%	4.97%
Total	10.73%		1.45%	12.18%	10.73%		7.55%	18.28%
General Tier 3 (Over \$350)								
Basic	10.30%		1.25%	11.55%	10.30%		6.66%	16.96%
Subvention	3.00%		0.00%	3.00%	3.00%		0.00%	3.00%
Basic + Subvention	13.30%		1.25%	14.55%	13.30%		6.66%	19.96%
COL	2.80%		0.93%	3.73%	2.80%		4.66%	7.46%
Total	16.10%		2.18%	18.28%	16.10%		11.32%	27.42%

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

CHART 14 (continued)

Employer Rates Under Current Assumptions for July 1, 2004 through June 30, 2005

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

Basic	11.93%	2.43%	14.36%
Subvention	3.11%	0.00%	3.11%
Basic + Subvention	15.04%	2.43%	17.47%
COL	3.34%	2.14%	5.48%
Total	18.38%	4.57%	22.95%

Payroll	Tier 1		Tier 2	Tier 3		Safety		Total
	<u>Non-Enhanced</u>	<u>Enhanced</u>		<u>Non-Enhanced</u>	<u>Enhanced</u>	<u>Non-Enhanced</u>	<u>Enhanced</u>	
County	\$1,911,000	\$70,233,000	\$14,916,000	\$14,249,000	\$312,197,000	-	\$78,826,000	\$492,332,000
Districts	<u>28,853,000</u>	<u>5,924,000</u>	<u>761,000</u>	<u>318,000</u>	<u>-</u>	<u>\$3,605,000</u>	<u>48,622,000</u>	<u>88,083,000</u>
Total	\$30,764,000	\$76,157,000	\$15,677,000	\$14,567,000	\$312,197,000	\$3,605,000	\$127,448,000	\$580,415,000

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

The employer contribution rates as of December 31, 2002 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 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 15
Reconciliation of Recommended Employer Contribution from December 31, 2001 to December 31, 2002

	Contribution Rate	Estimated Annual Dollar Cost*
Recommended Employer Contribution Rate in December 31, 2001 Valuation	24.22%	\$140,577,000
Effect of investment (gain)/loss ⁽¹⁾	(0.06)%	(348,000)
Effect of salary increase more than expected ⁽²⁾	0.14%	813,000
Effect of contribution (gain)/loss ⁽³⁾	0.14%	813,000
Effect of change in amortization period ⁽⁴⁾	(0.14)%	(813,000)
Effect of Pension Obligation Bond credit ⁽⁵⁾	(3.94)%	(22,868,000)
Effect of change in actuarial assumptions ⁽⁶⁾	3.01%	17,471,000
Effect of net other changes ⁽⁷⁾	<u>(0.42)%</u>	<u>(2,422,000)</u>
Total change	<u>(1.27)%</u>	<u>(7,354,000)</u>
Recommended Employer Contribution Rate in December 31, 2002 Valuation	22.95%	\$133,223,000

* Based on projected payroll as of 12/31/2002 of \$580,415,000.

(1) The Association's actuarial valuation assets earned 0.18% above the assumed rate of 8.35%.

(2) The average salary increase was 6.39% versus the assumed 5.71%.

(3) Contributions were less than required due to delayed implementation of enhanced benefit rates.

(4) In March 2003 the Board adopted a 20-year declining amortization period. The amortization period was scheduled to be 15 years prior to the change.

(5) The County issued \$322.7 million in Pension Obligation Bonds in April 2003.

(6) In April 2003 the Board adopted an actuarial investment return assumption of 8.00%. The assumption was 8.35% in the prior valuation.

(7) This item includes demographic gains and losses, plus any differences between the Segal actuarial valuation and that of the prior actuary.

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

The member contribution rates as of December 31, 2002 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 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 contribution from the prior valuation to the amount determined in this valuation.

CHART 16
Reconciliation of Recommended Member Contribution from December 31, 2001 to December 31, 2002

	Contribution Rate	Estimated Annual Dollar Cost*
Recommended Member Contribution Rate in December 31, 2001 Valuation	5.98%	\$34,705,000
Effect of change in investment return assumption	0.52%	3,018,000
Effect of demographic (gains)/losses	<u>0.08%</u>	<u>476,000</u>
Total change	<u>0.60%</u>	<u>3,494,000</u>
Recommended Member Contribution Rate in December 31, 2002 Valuation	6.58%	\$38,199,000

* Based on projected payroll as of 12/31/2002 of \$580,415,000.

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

E. INFORMATION REQUIRED BY THE 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 contribution 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 17 below presents a graphical representation of this information for the Plan

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

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

These graphs show key GASB factors.

CHART 17
Required Versus Actual Contributions

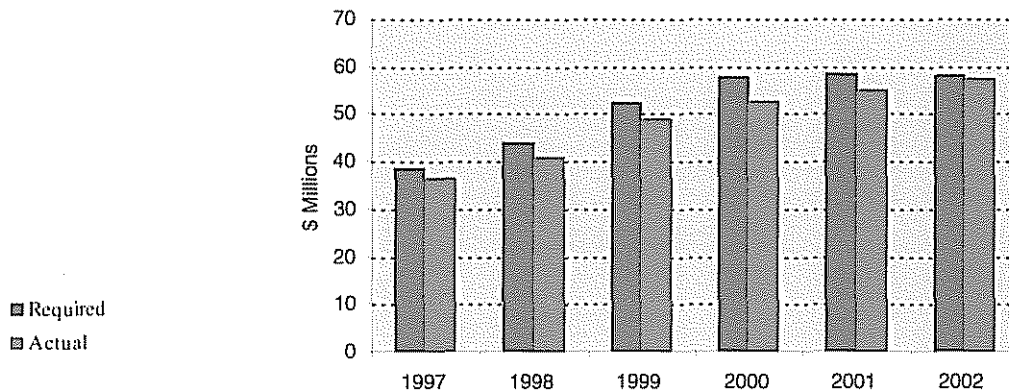
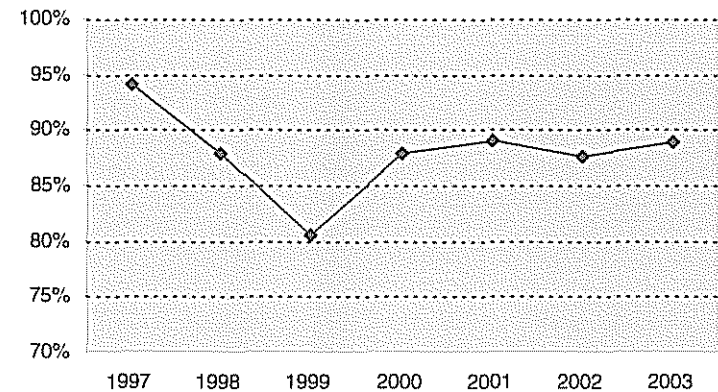


CHART 18
Funded Ratio



SECTION 3: Supplemental Information for 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
	2002	2001 ⁽¹⁾	
Active members in valuation			
Number	1,639	1,657	-1.1%
Average age	48.9	48.5	N/A
Average service	15.9	15.6	N/A
Projected total compensation ⁽²⁾	\$106,921,443	\$101,702,815	5.1%
Projected average compensation	\$65,236	\$61,378	6.3%
Total annualized monthly compensation rates ⁽³⁾	\$108,431,638	N/A	N/A
Average annualized monthly compensation rates	\$66,157	N/A	N/A
Account balances	\$86,952,687	\$84,246,965	3.2%
Total active vested members	1,181	1,220	-3.2%
Vested terminated members⁽⁴⁾			
	309	304	1.6%
Retired members			
Number in pay status	2611	2750	-5.1%
Average age	73.0	71.9	N/A
Average monthly benefit	\$2,136	\$2,019	5.8%
Disabled members			
Number in pay status	390	395	-1.3%
Average age	64.6	63.5	N/A
Average monthly benefit	\$1,842	\$1,689	9.1%
Beneficiaries			
Number in pay status	712	704	1.1%
Average age	73.1	72.3	N/A
Average monthly benefit	\$1,147	\$1,095	4.7%

(1) Adjusted to reflect a single record for members receiving benefit payments from multiple tiers.

(2) Calculated by increasing actual calendar year 2002 salaries by the assumed salary scale.

(3) Includes 16 members without a pay rate for December 2002. An annual amount of \$48,000 was used for these members.

(4) Includes only members who have terminated employment with CCCERA.

SECTION 3: Supplemental Information for 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
	2002	2001 ⁽¹⁾	
Active members in valuation			
Number	280	3,378	-91.7%
Average age	44.9	41.5	N/A
Average service	3.1	2.9	N/A
Projected total compensation ⁽²⁾	\$15,677,235	\$151,760,601	-89.7%
Projected average compensation	\$55,990	\$44,926	24.6%
Total annualized monthly compensation rates ⁽³⁾	\$17,959,853	N/A	N/A
Average annualized monthly compensation rates	\$64,142	N/A	N/A
Account balances	\$1,218,311	\$9,200,535	-86.8%
Total active vested members	40	505	-92.1%
Vested terminated members⁽⁴⁾	570	374	52.4%
Retired members			
Number in pay status	379	385	-1.6%
Average age	66.9	65.5	N/A
Average monthly benefit	\$696	\$725	-4.0%
Disabled members			
Number in pay status	68	69	-1.4%
Average age	61.2	59.2	N/A
Average monthly benefit	\$1,600	\$1,531	4.5%
Beneficiaries			
Number in pay status	59	57	3.5%
Average age	50.5	49.6	N/A
Average monthly benefit	\$760	\$728	4.4%

(1) Adjusted to reflect a single record for members receiving benefit payments from multiple tiers.

(2) Calculated by increasing actual calendar year 2002 salaries by the assumed salary scale.

(3) Includes 4 members without a pay rate for December 2002. An annual amount of \$48,000 was used for these members.

(4) Includes only members who have terminated employment with CCCERA.

SECTION 3: Supplemental Information for 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
	2002	2001 ⁽¹⁾	
Active members in valuation			
Number	5,935	2,494	138.0%
Average age	45.1	48.2	N/A
Average service	7.8	12.4	N/A
Projected total compensation ⁽²⁾	\$326,763,845	\$148,413,594	120.2%
Projected average compensation	\$55,057	\$59,508	-7.5%
Total annualized monthly compensation rates ⁽³⁾	\$326,763,845	N/A	N/A
Average annualized monthly compensation rates	\$55,057	N/A	N/A
Account balances	\$69,527,082	\$49,914,254	39.3%
Total active vested members	3,129	2,492	25.6%
Vested terminated members⁽⁴⁾	20	123	-83.7%
Retired members			
Number in pay status	188	138	36.2%
Average age	61.3	60.4	N/A
Average monthly benefit	\$1,109	\$946	17.2%
Disabled members			
Number in pay status	29	18	61.1%
Average age	57.9	56.1	N/A
Average monthly benefit	\$1,738	\$1,397	24.4%
Beneficiaries			
Number in pay status	13	10	30.0%
Average age	50.1	48.8	N/A
Average monthly benefit	\$932	\$868	7.4%

(1) Adjusted to reflect a single record for members receiving benefit payments from multiple tiers.

(2) Calculated by annualizing the December 2002 monthly pay rate.

(3) Includes 119 members without a pay rate for December 2002. An annual amount of \$48,000 was used for these members.

(4) Includes only members who have terminated employment with CCCERA.

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

EXHIBIT A (continued)

Table of Plan Coverage

iv. Safety

Category	Year Ended December 31		Change From Prior Year
	2002	2001 ⁽¹⁾	
Active members in valuation			
Number	1,757	1,700	3.4%
Average age	40.7	40.8	N/A
Average service	11.2	11.4	N/A
Projected total compensation ⁽²⁾	\$131,052,957	\$121,744,376	7.6%
Projected average compensation	\$74,589	\$71,614	4.2%
Total annualized monthly compensation rates ⁽³⁾	\$155,310,829	N/A	N/A
Average annualized monthly compensation rates	\$88,395	N/A	N/A
Account balances	\$100,373,921	\$98,569,836	1.8%
Total active vested members	1,121	1,121	0.0%
Vested terminated members⁽⁴⁾	168	154	9.1%
Retired members			
Number in pay status	603	417	44.6%
Average age	64.7	65.4	N/A
Average monthly benefit	\$4,853	\$4,656	4.2%
Disabled members			
Number in pay status	348	336	3.6%
Average age	57.4	56.6	N/A
Average monthly benefit	\$3,341	\$3,147	6.2%
Beneficiaries			
Number in pay status	219	208	5.3%
Average age	65.9	64.8	N/A
Average monthly benefit	\$2,009	\$1,979	1.5%

(1) Adjusted to reflect a single record for members receiving benefit payments from multiple tiers.

(2) Calculated by increasing actual calendar year 2002 salaries by the assumed salary scale.

(3) Includes 22 members without a pay rate for December 2002. An annual amount of \$60,000 was used for these members.

(4) Includes only members who have terminated employment with CCCERA.

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

EXHIBIT B

Members in Active Service During Year Ended December 31, 2002
By Age, Years of Service, and Average Annualized Monthly Compensation Rate⁽¹⁾ for December 2002

i. General Tier 1 Non-Enhanced

Age	Total	Years of Service								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	8	8	--	--	--	--	--	--	--	--
	43,908	43,908	--	--	--	--	--	--	--	--
25 - 29	25	21	4	--	--	--	--	--	--	--
	37,099	36,033	42,695	--	--	--	--	--	--	--
30 - 34	34	24	5	5	--	--	--	--	--	--
	51,671	50,155	56,530	54,091	--	--	--	--	--	--
35 - 39	59	32	6	14	7	--	--	--	--	--
	52,703	49,023	43,780	62,578	57,428	--	--	--	--	--
40 - 44	79	34	10	24	7	4	--	--	--	--
	58,554	57,371	56,316	56,697	65,110	73,870	--	--	--	--
45 - 49	107	25	10	23	18	25	6	--	--	--
	68,518	61,522	57,921	63,648	77,225	79,279	63,037	--	--	--
50 - 54	103	20	7	20	17	28	11	--	--	--
	67,631	51,635	55,879	73,554	75,749	70,907	72,534	--	--	--
55 - 59	42	8	6	8	10	3	3	3	1	--
	62,191	56,861	42,791	51,191	71,884	72,998	93,981	74,367	48,000	--
60 - 64	15	3	2	2	1	2	1	2	1	1
	73,962	39,501	67,473	89,337	62,403	73,927	71,286	93,328	161,105	48,000
65 - 69	5	3	--	2	--	--	--	--	--	--
	57,723	41,114	--	82,636	--	--	--	--	--	--
70 & over	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
Total	477	178	50	98	60	62	21	5	2	1
	60,961	51,115	52,827	63,222	71,947	74,673	72,825	81,951	104,552	48,000

(1) Includes 7 members without a pay rate for December 2002. An annual amount of \$48,000 was used for these members.

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

EXHIBIT B (continued)

Members in Active Service During Year Ended December 31, 2002
By Age, Years of Service, and Average Annualized Monthly Compensation Rate⁽¹⁾ for December 2002

ii. General Tier 1 Enhanced

Age	Total	Years of Service								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	7	7	--	--	--	--	--	--	--	--
	41,572	41,572	--	--	--	--	--	--	--	--
25 - 29	29	26	3	--	--	--	--	--	--	--
	54,299	53,866	58,051	--	--	--	--	--	--	--
30 - 34	46	37	9	--	--	--	--	--	--	--
	57,678	57,713	57,535	--	--	--	--	--	--	--
35 - 39	78	50	17	11	--	--	--	--	--	--
	65,806	64,501	69,247	66,419	--	--	--	--	--	--
40 - 44	93	38	22	15	3	14	1	--	--	--
	66,451	70,195	62,864	70,892	68,931	56,026	74,951	--	--	--
45 - 49	209	49	24	22	11	46	53	4	--	--
	65,111	67,291	70,685	76,618	67,104	67,888	52,881	66,329	--	--
50 - 54	317	42	20	20	13	62	107	52	1	--
	68,233	65,057	76,499	78,095	71,480	73,163	66,504	60,825	61,328	--
55 - 59	292	26	17	21	18	33	82	71	23	1
	75,349	69,097	80,694	67,436	88,410	69,439	76,671	79,532	67,395	50,580
60 - 64	77	4	3	7	5	13	17	20	6	2
	68,562	76,260	45,981	64,895	55,049	73,565	66,067	73,695	76,229	48,015
65 - 69	11	1	--	--	2	2	4	1	1	--
	68,866	96,672	--	--	45,767	118,793	52,629	53,530	67,692	--
70 & over	3	--	--	--	--	1	1	1	--	--
	81,650	--	--	--	--	36,084	171,441	37,425	--	--
Total	1,162	280	115	96	52	171	265	149	31	3
	68,290	64,097	69,464	71,999	73,699	69,970	67,116	71,408	68,919	48,870

(1) Includes 9 members without a pay rate for December 2002. An annual amount of \$48,000 was used for these members.

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

EXHIBIT B (continued)

Members in Active Service During Year Ended December 31
By Age, Years of Service, and Average Annualized Monthly Compensation Rate⁽¹⁾ for December 2002

iii. General Tier 2

Age	Total	Years of Service							
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35&over
Under 25	2	2	--	--	--	--	--	--	--
	39,411	39,411	--	--	--	--	--	--	--
25 - 29	7	7	--	--	--	--	--	--	--
	56,173	56,173	--	--	--	--	--	--	--
30 - 34	31	30	1	--	--	--	--	--	--
	59,201	58,824	70,506	--	--	--	--	--	--
35 - 39	41	37	2	2	--	--	--	--	--
	64,616	65,594	53,522	57,618	--	--	--	--	--
40 - 44	57	46	7	4	--	--	--	--	--
	64,427	63,179	60,314	85,979	--	--	--	--	--
45 - 49	72	60	7	4	1	--	--	--	--
	63,443	60,966	73,284	79,850	77,532	--	--	--	--
50 - 54	35	33	2	--	--	--	--	--	--
	64,198	64,874	53,039	--	--	--	--	--	--
55 - 59	24	20	3	1	--	--	--	--	--
	73,739	72,498	76,907	89,060	--	--	--	--	--
60 - 64	11	5	1	2	1	1	1	--	--
	67,859	52,370	63,061	87,580	59,090	102,587	84,698	--	--
65 - 69	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
Total	280	240	23	13	2	1	1	--	--
	64,142	62,836	65,765	80,213	68,311	102,587	84,698	--	--

(1) Includes 4 members without a pay rate for December 2002. An annual amount of \$48,000 was used for these members.

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

EXHIBIT B (continued)

Members in Active Service During Year Ended December 31
By Age, Years of Service, and Average Annualized Monthly Compensation Rate⁽¹⁾ for December 2002

iv. General Tier 3 Non-Enhanced

Age	Total	Years of Service							
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35&over
Under 25	--	--	--	--	--	--	--	--	--
25 - 29	--	--	--	--	--	--	--	--	--
30 - 34	3	--	2	1	--	--	--	--	--
35 - 39	72,109	--	67,333	81,659	--	--	--	--	--
40 - 44	13	--	9	4	--	--	--	--	--
45 - 49	78,206	--	74,320	86,949	--	--	--	--	--
50 - 54	22	--	6	14	2	--	--	--	--
55 - 59	71,842	--	62,562	76,124	69,710	--	--	--	--
60 - 64	51	--	19	23	9	--	--	--	--
65 - 69	77,358	--	67,624	80,955	88,712	--	--	--	--
70 & over	53	--	23	15	10	5	--	--	--
Total	75,981	--	67,855	74,296	89,359	91,659	--	--	--
	30	--	9	9	7	5	--	--	--
	80,820	--	75,865	81,581	84,211	83,623	--	--	--
	15	--	6	4	4	1	--	--	--
	77,282	--	79,911	65,509	81,721	90,849	--	--	--
	2	--	1	--	1	--	--	--	--
	75,120	--	63,401	--	86,838	--	--	--	--
	1	--	1	--	--	--	--	--	--
	46,523	--	46,523	--	--	--	--	--	--
Total	190	--	76	70	33	11	--	--	--
	76,665	--	69,692	78,112	85,898	87,932	--	--	--

(1) Includes 3 members without a pay rate for December 2002. An annual amount of \$48,000 was used for these members.

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

EXHIBIT B (continued)

Members in Active Service During Year Ended December 31
By Age, Years of Service, and Average Annualized Monthly Compensation Rate⁽¹⁾ for December 2002

v. General Tier 3 Enhanced

Age	Total	Years of Service								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35&over	
Under 25	105	105	--	--	--	--	--	--	--	--
	36,417	36,417	--	--	--	--	--	--	--	--
25 - 29	388	361	27	--	--	--	--	--	--	--
	44,812	44,284	51,866	--	--	--	--	--	--	--
30 - 34	608	464	118	25	1	--	--	--	--	--
	52,532	50,744	60,034	50,204	55,008	--	--	--	--	--
35 - 39	829	450	181	167	30	1	--	--	--	--
	54,699	49,568	59,208	62,092	63,576	46,932	--	--	--	--
40 - 44	894	405	157	201	82	48	1	--	--	--
	55,241	49,592	54,682	63,868	63,360	54,331	75,101	--	--	--
45 - 49	971	391	176	189	126	83	5	1	--	--
	56,083	47,281	52,276	61,727	72,498	67,034	70,818	50,292	--	--
50 - 54	896	318	163	206	118	75	11	5	--	--
	56,561	47,460	53,733	61,621	64,722	67,005	93,625	88,325	--	--
55 - 59	666	195	114	155	106	69	17	10	--	--
	57,282	44,791	56,644	60,589	58,586	72,890	89,409	80,729	--	--
60 - 64	289	84	49	72	52	25	3	4	--	--
	54,936	50,237	45,032	58,755	58,219	66,420	97,802	59,584	--	--
65 - 69	80	25	20	21	10	4	--	--	--	--
	50,233	48,442	48,695	53,778	46,736	59,249	--	--	--	--
70 & over	19	6	4	4	3	2	--	--	--	--
	59,741	29,317	99,139	69,084	58,695	55,100	--	--	--	--
Total	5,745	2,804	1,009	1,040	528	307	37	20	--	--
	54,342	47,670	55,282	61,394	64,035	66,062	88,444	76,877	--	--

(1) Includes 116 members without a pay rate for December 2002. An annual amount of \$48,000 was used for these members.

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

EXHIBIT B (continued)

Members in Active Service During Year Ended December 31
By Age, Years of Service, and Average Annualized Monthly Compensation Rate for December 2002

vi. Safety Non-Enhanced

Age	Total	Years of Service					
		0-4	5-9	10-14	15-19	20-24	25-29
Under 25	2	2	--	--	--	--	--
	39,649	39,649	--	--	--	--	--
25 - 29	12	12	--	--	--	--	--
	55,576	55,576	--	--	--	--	--
30 - 34	11	7	3	1	--	--	--
	53,405	49,681	45,939	101,872	--	--	--
35 - 39	10	4	2	4	--	--	--
	68,595	42,282	42,794	107,808	--	--	--
40 - 44	10	2	2	1	4	1	--
	81,234	39,649	44,915	117,429	101,616	119,318	--
45 - 49	8	0	2	1	1	4	--
	94,458	0	73,906	42,792	143,197	105,466	--
50 - 54	6	1	2	0	3	--	--
	84,119	99,269	45,939	0	104,521	--	--
55 - 59	1	--	--	1	--	--	--
	94,597	--	--	94,597	--	--	--
60 - 64	1	--	1	--	--	--	--
	45,939	--	45,939	--	--	--	--
65 & over	--	--	--	--	--	--	--
	--	--	--	--	--	--	--
Total	61	28	12	8	8	5	--
	69,391	51,488	49,906	98,490	107,903	108,237	--

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

EXHIBIT B (continued)

Members in Active Service During Year Ended December 31
By Age, Years of Service, and Average Annualized Monthly Compensation Rate⁽¹⁾ for December 2002

vii. Safety Enhanced

Age	Total	Years of Service						
		0-4	5-9	10-14	15-19	20-24	25-29	30&over
Under 25	40	40	--	--	--	--	--	--
	64,439	64,439	--	--	--	--	--	--
25 - 29	175	165	10	--	--	--	--	--
	68,214	67,110	86,431	--	--	--	--	--
30 - 34	301	192	86	23	--	--	--	--
	77,578	73,487	82,141	94,675	--	--	--	--
35 - 39	344	114	71	127	31	1	--	--
	88,333	75,119	82,862	98,907	104,671	133,602	--	--
40 - 44	267	44	34	69	102	18	--	--
	98,353	75,845	85,590	101,096	106,255	122,190	--	--
45 - 49	237	22	17	26	57	86	29	--
	101,711	72,861	77,943	103,447	96,747	109,819	121,682	--
50 - 54	204	10	14	18	31	53	63	15
	102,703	72,502	73,497	78,137	108,117	109,029	109,677	116,746
55 - 59	99	12	7	8	7	19	27	19
	95,293	72,610	78,141	90,711	88,207	103,751	100,414	104,741
60 - 64	24	9	3	2	4	1	3	2
	75,774	61,859	64,828	62,580	97,582	106,888	100,871	71,179
65 & over	5	--	3	1	1	--	--	--
	51,172	--	49,652	43,050	63,852	--	--	--
Total	1,696	608	245	274	233	178	122	36
	89,079	71,409	81,494	97,461	103,093	110,304	110,264	107,879

(1) Includes 22 members without a pay rate for December 2002. An annual amount of \$60,000 was used for these members.

SECTION 3: Supplemental Information for 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, 2002

Age	Total	Years of Retirement								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	8	--	5	3	--	--	--	--	--	--
	591	--	445	835	--	--	--	--	--	--
25 - 29	5	--	2	2	1	--	--	--	--	--
	768	--	430	1,162	654	--	--	--	--	--
30 - 34	5	--	2	1	2	--	--	--	--	--
	735	--	719	700	768	--	--	--	--	--
35 - 39	9	1	5	3	--	--	--	--	--	--
	713	723	654	808	--	--	--	--	--	--
40 - 44	11	4	3	2	2	--	--	--	--	--
	1,421	1,861	900	2,101	643	--	--	--	--	--
45 - 49	39	10	10	8	6	2	2	1	--	--
	1,339	1,504	1,657	1,574	788	1,280	196	335	--	--
50 - 54	122	78	18	11	5	5	3	2	--	--
	1,488	1,505	1,774	1,520	967	1,087	1,148	928	--	--
55 - 59	291	142	87	28	19	6	8	1	--	--
	1,996	2,538	1,561	1,437	1,422	1,421	874	1,871	--	--
60 - 64	448	184	136	81	26	13	6	1	1	--
	2,539	3,550	2,228	1,417	1,367	1,717	1,103	374	1,820	--
65 - 69	557	98	186	144	98	19	4	4	4	--
	2,368	3,602	2,873	1,959	1,112	1,465	1,373	833	929	--
70 - 74	626	21	96	234	161	80	23	6	4	1
	1,986	2,222	2,867	2,460	1,409	944	1,430	1,049	912	505
75 - 80	656	7	13	128	233	180	83	8	3	1
	1,777	2,365	2,624	2,237	2,033	1,365	1,178	907	1,330	720
80 - 84	565	1	4	24	138	235	125	32	6	--
	1,576	4,606	2,103	1,772	1,600	1,732	1,325	1,129	844	--
85 - 89	267	--	--	2	12	91	92	59	8	3
	1,430	--	--	927	1,785	1,652	1,471	1,085	867	661
90 & over	104	--	--	--	--	1	42	40	16	5
	1,186	--	--	--	--	622	1,367	1,236	843	479
Total	3,713	546	567	671	703	632	388	154	42	10
	1,915	2,885	2,381	2,064	1,603	1,497	1,319	1,110	921	560

Note: Total Retired Benefit \$7,110,037, average age 72.1 and average years retired 15.2.

SECTION 3: Supplemental Information for 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, 2002

Age	Total	Years of Retirement								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	3	2	1	--	--	--	--	--	--	--
	485	583	289	--	--	--	--	--	--	--
25 - 29	8	1	5	2	--	--	--	--	--	--
	607	963	455	807	--	--	--	--	--	--
30 - 34	8	--	3	5	--	--	--	--	--	--
	763	--	1,137	538	--	--	--	--	--	--
35 - 39	3	--	2	1	--	--	--	--	--	--
	1,434	--	1,451	1,399	--	--	--	--	--	--
40 - 44	2	--	2	--	--	--	--	--	--	--
	517	--	1,517	--	--	--	--	--	--	--
45 - 49	6	--	5	1	--	--	--	--	--	--
	913	--	693	2,011	--	--	--	--	--	--
50 - 54	30	18	8	3	1	--	--	--	--	--
	866	701	1,046	1,288	1,126	--	--	--	--	--
55 - 59	88	36	44	5	3	--	--	--	--	--
	722	617	728	1,130	1,204	--	--	--	--	--
60 - 64	82	34	39	9	--	--	--	--	--	--
	881	941	850	790	--	--	--	--	--	--
65 - 69	131	48	55	21	7	--	--	--	--	--
	875	918	906	716	813	--	--	--	--	--
70 - 74	82	12	44	21	3	2	--	--	--	--
	838	776	863	911	492	403	--	--	--	--
75 - 80	50	6	19	20	4	1	--	--	--	--
	780	700	710	844	582	2,120	--	--	--	--
80 - 84	11	--	1	8	1	1	--	--	--	--
	700	--	430	614	747	1,609	--	--	--	--
85 - 89	2	--	--	1	1	--	--	--	--	--
	137	--	--	73	200	--	--	--	--	--
90 & over	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
Total	506	157	228	97	20	4	--	--	--	--
	825	806	836	829	759	1,134	--	--	--	--

Note: Total Retired Benefit \$417,332, average age 64.2 and average years retired 6.8.

SECTION 3: Supplemental Information for 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, 2002

Age	Total	Years of Retirement								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	1	1	--	--	--	--	--	--	--	--
	819	819	--	--	--	--	--	--	--	--
25 - 29	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
30 - 34	3	3	--	--	--	--	--	--	--	--
	813	813	--	--	--	--	--	--	--	--
35 - 39	2	2	--	--	--	--	--	--	--	--
	807	807	--	--	--	--	--	--	--	--
40 - 44	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
45 - 49	2	2	--	--	--	--	--	--	--	--
	2,202	2,202	--	--	--	--	--	--	--	--
50 - 54	31	31	--	--	--	--	--	--	--	--
	805	805	--	--	--	--	--	--	--	--
55 - 59	53	53	--	--	--	--	--	--	--	--
	1,224	1,224	--	--	--	--	--	--	--	--
60 - 64	77	77	--	--	--	--	--	--	--	--
	1,350	1,350	--	--	--	--	--	--	--	--
65 - 69	51	51	--	--	--	--	--	--	--	--
	1,052	1,052	--	--	--	--	--	--	--	--
70 - 74	8	8	--	--	--	--	--	--	--	--
	1,512	1,512	--	--	--	--	--	--	--	--
75 - 80	2	2	--	--	--	--	--	--	--	--
	1,134	1,134	--	--	--	--	--	--	--	--
80 - 84	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
85 - 89	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
90 & over	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
Total	230	230	--	--	--	--	--	--	--	--
	1,178	1,178	--	--	--	--	--	--	--	--

Note: Total Retired Benefit \$270,975, average age 60.2 and average years retired 1.9.

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

EXHIBIT C (continued)

Average Monthly Benefit and Membership Distribution of Retired Members and Beneficiaries
iv. Safety as of December 31, 2002

Age	Total	Years of Retirement								
		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & over
Under 25	3	--	1	2	--	--	--	--	--	--
	1,326	--	2,860	559	--	--	--	--	--	--
25 - 29	2	--	--	2	--	--	--	--	--	--
	589	--	--	589	--	--	--	--	--	--
30 - 34	8	5	--	3	--	--	--	--	--	--
	2,142	2,542	--	1,476	--	--	--	--	--	--
35 - 39	21	11	7	3	--	--	--	--	--	--
	2,608	3,136	2,611	664	--	--	--	--	--	--
40 - 44	33	18	9	6	--	--	--	--	--	--
	2,874	3,087	2,832	2,297	--	--	--	--	--	--
45 - 49	45	16	13	11	4	1	--	--	--	--
	2,601	2,998	2,562	2,237	2,275	2,048	--	--	--	--
50 - 54	116	56	27	18	11	2	1	1	--	--
	3,309	4,375	2,342	2,385	2,277	2,256	2,461	603	--	--
55 - 59	267	151	55	23	19	13	5	1	--	--
	4,526	5,985	3,003	2,622	1,999	2,200	2,237	1,560	--	--
60 - 64	217	59	71	54	13	10	7	3	--	--
	4,774	5,583	5,544	4,349	2,112	2,554	2,638	2,216	--	--
65 - 69	153	7	30	66	30	13	4	2	1	--
	4,224	3,186	3,663	5,512	3,548	2,285	2,303	1,650	1,686	--
70 - 74	144	1	12	24	43	40	20	3	--	1
	3,383	6,759	4,251	3,993	3,679	3,083	2,232	1,910	--	1,738
75 - 80	96	--	1	1	8	40	31	7	8	--
	3,239	--	4,252	4,774	3,845	4,061	2,614	2,068	1,647	--
80 - 84	43	--	--	1	--	1	28	9	2	2
	2,919	--	--	2,588	--	7,788	3,232	2,133	1,316	1,398
85 - 89	18	--	--	--	--	--	4	9	5	--
	2,043	--	--	--	--	--	2,833	2,046	1,406	--
90 & over	4	--	--	--	--	--	--	--	2	2
	1,209	--	--	--	--	--	--	--	1,467	951
Total	1,170	324	226	214	128	120	100	35	18	5
	3,871	5,117	3,837	3,982	3,086	3,200	2,688	1,998	1,525	1,287

Note: Total Retired Benefit \$4,528,821, average age 62.7 and average years retired 12.1.

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

EXHIBIT D

Reconciliation of Participant Data – December 31, 2001⁽¹⁾ to December 31, 2002

	Active Participants	Vested Former Participants	Pensioners	Disableds	Beneficiaries	Total
Number as of December 31, 2001	9,229	955	3,690	818	979	15,671
New participants	1,010	33	0	0	0	1,043
Terminations – with vested rights	-160	160	0	0	0	0
Contributions Refunds	-220	-31	0	0	0	-251
Retirements	-204	-29	233	0	0	0
New disabilities	-34	0	-5	39	0	0
Return to work	17	-17	0	0	0	0
Died with or without beneficiary	-18	-4	-144	-23	26	-163
Data adjustments	<u>-9</u>	<u>0</u>	<u>7</u>	<u>1</u>	<u>-2</u>	<u>-3</u>
Number as of December 31, 2002	9,611	1,067	3,781	835	1,003	16,297

(1) Adjusted to reflect a single record for members receiving benefit payments from multiple tiers.

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

EXHIBIT E

Summary Statement of Income and Expenses on Actuarial Value of Assets

	Year Ended December 31, 2002	Year Ended December 31, 2001
Contribution income:		
Employer contributions	\$57,474,043	\$55,182,505
Employee contributions	26,605,875	18,681,239
Additional contributions*	<u>36,520,204</u>	<u>0</u>
Net contribution income	\$120,600,122	\$73,863,744
Investment income:		
Interest, dividends and real estate income	\$71,769,645	\$89,412,975
Adjustment toward market value**	36,603,568	202,526,527
Less investment and administrative fees	<u>-15,228,443</u>	<u>-13,192,974</u>
Net investment income	\$93,144,770	\$278,746,528
Total income available for benefits	\$213,744,892	\$352,610,272
Less benefit payments	-\$148,450,453	-\$178,592,210***
Change in reserve for future benefits	\$65,294,439	\$174,018,062

* Equals the sum of \$2,290,000 additional contribution receivable for San Ramon Fire District and \$34,230,204 additional contribution receivable for the final Paulson Settlement.

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

*** Includes \$10,791,085 transfer to CALPERS pursuant to the withdrawal of the City of Pittsburg from the CCCERA.

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

EXHIBIT F
Table of Financial Information

	As of December 31, 2002	As of December 31, 2001
Cash equivalents including prepaid expense	\$315,845,649	\$130,651,448
Accounts receivable:		
Securities sold	\$25,493,428	\$39,954,132
Accrued interest and dividends	10,460,868	6,651,300
Employee and employer contributions	2,125,806	1,883,651
Additional contributions*	<u>36,520,204</u>	<u>0</u>
Total accounts receivable	\$74,600,306	\$48,489,083
Investments:		
Stocks	\$925,505,259	\$1,157,410,541
Bonds	1,088,353,355	1,113,757,398
Real estate	266,628,365	267,431,185
Other	<u>48,009,023</u>	<u>50,652,596</u>
Total investments at market value	<u>2,328,496,002</u>	<u>2,589,251,720</u>
Total assets	\$2,718,941,957	\$2,768,392,251
Liabilities:		
Securities lending	-97,146,164	-\$0
Payable for securities purchased	-168,662,515	-19,654,797
Employer contributions unearned	-35,483,940	-24,930,607
Benefits payable	-13,038,952	-14,869,967
Other	<u>-2,552,759</u>	<u>-4,208,128</u>
Total liabilities	-\$316,884,330	-\$63,663,499
Net assets at market value	<u>\$2,402,057,627</u>	<u>\$2,704,728,752</u>
Net assets at actuarial value	<u>\$3,155,471,516</u>	<u>\$3,090,177,077</u>
Net assets at valuation value	<u>\$2,977,641,567</u>	<u>\$2,613,220,265</u>

* Equals the sum of \$2,290,000 additional contribution receivable for San Ramon Fire District and \$34,230,204 additional contribution receivable for the final Paulson Settlement.

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

EXHIBIT G
Actuarial Balance Sheet

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

"liability" of the Plan.

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

	Basic	COL	Total
Assets			
1. Total actuarial value of assets (Gross of current liabilities)	\$2,730,095,516	\$1,061,355,050	\$3,791,450,566
2. Present value of future contributions by members	145,249,748	158,755,803	304,005,551
3. Present value of future employer contributions for:			
(a) entry age normal cost	712,806,429	157,533,596	870,340,025
(b) unfunded actuarial accrued liability (County and Districts)	202,481,042	178,406,815	380,887,857
4. Total actuarial assets	3,790,632,735	1,556,051,264	5,346,683,999
Liabilities			
5. Present value of retirement allowances payable to present retired members	1,034,376,106	715,348,505	1,749,724,611
6. Present value of retirement allowances to be granted			
(a) Service Retirement	2,003,018,889	744,222,397	2,747,241,286
(b) Disability retirement	214,639,518	80,248,311	294,887,829
7. Present value of death benefits to be granted	42,625,578	15,617,088	58,242,666
8. Present value of members' contributions to be returned upon withdrawal before retirement	1,258,366	614,962	1,873,328
9. Post-retirement death benefit reserve	11,855,515	0	11,855,515
10. Unrestricted earnings	0	0	0
11. Miscellaneous liabilities and reserves			
(a) Current liabilities	316,884,330	0	316,884,330
(b) Statutory reserve	26,824,217	0	26,824,217
(c) Board designated reserves:			
(i) Contingency Reserve	26,824,217	0	26,824,217
(ii) Excess Earnings from December 31, 2000 and 2001	105,677,000	0	105,677,000
(d) Actuarial Transfer Designation	6,649,000	0	6,649,000
12. Total actuarial liabilities	3,790,632,735	1,556,051,264	5,346,683,999

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

EXHIBIT H

Summary of Reported Asset Information as of December 31, 2002

Reserves	
Member Deposits ⁽¹⁾	\$252,349,200
Member Cost of Living ⁽¹⁾	44,215,385
Employer Advance Reserve ⁽¹⁾	739,296,755
Employer Cost of Living ⁽¹⁾	444,573,884
Retired Members Reserve ⁽¹⁾	947,855,930
Retired Cost of Living ⁽¹⁾	349,323,882
New \$ Power COL Supplement ⁽¹⁾	38,978,745
Smoothed Market Value-Valuation ⁽¹⁾	124,527,582
Post Retirement Death Benefit ⁽²⁾	11,855,515
Statutory Contingency (1%) ⁽²⁾	26,824,217
Additional one percent contingency designation ⁽²⁾	26,824,217
Excess Earnings from Dec 2000 ⁽²⁾	40,925,129
Excess Earnings from Dec 2001 ⁽²⁾	64,751,871
Actuarial Transfer Designation ⁽²⁾	6,649,000
Contribution Receivable ⁽¹⁾⁽³⁾	36,520,204
Total Allocated Reserves	\$3,155,471,516
Market Stabilization Account	(753,413,889)
Net market value	\$2,402,057,627

⁽¹⁾ Included in valuation assets.

⁽²⁾ Not included in valuation assets.

⁽³⁾ Equals the sum of \$2,290,000 additional contribution receivable for San Ramon Fire District and \$34,230,204 additional contribution receivable for the final Paulson Settlement.

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

EXHIBIT H (continued)

Summary of Reported Asset Information as of December 31, 2002

Revenues and Disbursements Among Applicable Reserves

	Year Ended December 31, 2002	Year Ended December 31, 2001
Balance – beginning of year	\$2,704,728,752	\$2,931,261,880
Revenues		
Employees' contributions	\$26,605,875	\$18,681,239
Employers' contributions	57,474,043	55,182,505
Additional contributions	36,520,204*	0
Distributed & undistributed investment income	<u>493,821,538</u>	<u>276,836,637</u>
Total Revenues	\$614,421,660	\$350,700,381
Disbursements		
Benefit payments and refunds	\$148,450,453	\$167,801,125
Investment and administrative expense	15,228,443	13,192,974
Miscellaneous	<u>0</u>	<u>10,791,085**</u>
Total Disbursements	163,678,896	\$191,785,184
Balance – end of year	\$3,155,471,516	\$3,090,177,077
Net unrealized appreciation	<u>(753,413,889)</u>	<u>(385,448,325)</u>
Net market value	\$2,402,057,627	\$2,704,728,752

* Equals the sum of \$2,290,000 additional contribution receivable for San Ramon Fire District and \$34,230,204 additional contribution receivable for the final Paulson Settlement.

** Transfer to CALPERS pursuant to the withdrawal of the City of Pittsburg from the CCCERA.

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

EXHIBIT I

Development of Unfunded Actuarial Accrued Liability

		Year Ended December 31, 2002 (all dollar amounts in thousands)
1.	Unfunded actuarial accrued liability at beginning of year ⁽¹⁾	\$487,052
2.	Gross Normal cost at beginning of year	111,531
3.	Employer contributions and transfers from unrestricted ⁽²⁾	(122,665)
4.	Employee contributions	(26,606)
5.	Interest	<u>43,751</u>
6.	Expected unfunded actuarial accrued liability	493,063
7.	Actuarial (gain)/loss due to all changes:	
	a. Investment return	(4,667)
	b. Salary increase	10,979
	c. Pension obligation bond	(319,094)
	d. Change in interest rate assumption	147,014
	e. Demographic (gains)/losses and actuarial valuation changes	<u>53,593</u>
	f. Total (gain)/loss	(112,175)
8.	Unfunded actuarial accrued liability at end of year	<u>380,888</u>

⁽¹⁾ After \$100,000,000 Board of Retirement transfer for enhanced benefits.

⁽²⁾ Includes transfer for \$200 monthly benefit for pre - 1-1-83 retirees.

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

EXHIBIT J

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 \$160,000 for 2002 and 2003. Normal Retirement Age for these purposes is age 62. These are the limits in simplified terms. They may need to 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.

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

EXHIBIT K

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 which 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;
- (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 benefit 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 which 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. There is a wide range of approaches to paying off the unfunded actuarial accrued liability, from meeting the interest accrual only to amortizing it over a specific period of time.



SECTION 3: Supplemental Information for 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 capital gains and losses to avoid significant swings in the value of assets from one year to the next.

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

EXHIBIT I

Supplementary Information Required by the GASB – Schedule of Employer Contributions

Plan Year Ended December 31	Annual Required Contributions	Actual Contributions	Percentage Contributed*
1997	38,537,711	N/A	95.2%
1998	44,243,668	N/A	92.5%
1999	52,565,912	N/A	93.7%
2000	58,035,756	52,986,645	91.3%
2001	58,642,407	55,182,505	94.1%
2002	58,319,678	57,474,043	98.6%

* The contribution percentage is less than 100% due to actions taken by the Board of Retirement to phase-in, over three years, increased contribution requirements associated with the significant actuarial assumption changes and the expansion of earnable compensation required by the "Ventura Decision".

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

EXHIBIT II

Supplementary Information Required by the GASB – Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets* (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded/ (Overfunded) AAL (UAAL) (b) - (a)	Funded Ratio (a) / (b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll*** [(b) - (a) / (c)]
01/01/1997	1,629,592,000	1,730,879,000	101,287,000	94.15%	353,738,000	28.63%
01/01/1998	1,742,014,000	1,983,394,000	241,380,000	87.83%	385,412,000	62.63%
01/01/1999	1,868,521,000	2,320,315,000	451,794,000	80.53%	411,748,000	109.73%
01/01/2000**	2,137,554,000	2,433,614,000	296,060,000	87.83%	463,279,000	63.91%
01/01/2001	2,355,179,000	2,643,526,000	288,347,000	89.09%	488,384,000	59.04%
01/01/2002	2,613,220,000	2,983,551,000	370,331,000	87.59%	523,621,000	70.73%
01/01/2003	3,296,736,000****	3,677,624,000	380,888,000	89.64%	580,415,000	65.62%

* Excludes accounts payable. Restated to exclude non-valuation reserves.

** Adjusted to reflect the Retirement Board's action to change the annual investment return assumption to 8.5%.

*** Not less than zero

**** Includes net proceeds from County issued Pension Obligation Bonds in the amount of \$319,094,714.

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

EXHIBIT III

Supplementary Information Required by the GASB

Valuation Date	December 31, 2002
Actuarial Cost Method	Entry Age Normal Cost Method
Amortization Method	Level percent of payroll for total unfunded liability
Remaining Amortization Period	20 years from January 1, 2003
Asset Valuation Method	5 year Smoothed Market, excluding non-valuation reserves and designations
Actuarial Assumptions:	
Investment Rate of Return	8.00%
Projected Salary Increases	5.71%
Attributed to Inflation	4.25%
Cost of Living Adjustments	Contingent upon CPI Increases with a 3% or 4% Maximum
Membership of the Plan	
Retirees and Beneficiaries receiving benefits	5,619
Terminated plan members entitled to, but not yet receiving benefits	1,067
Active plan members	<u>9,611</u>
Total	16,297

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

EXHIBIT IV

Actuarial Assumptions and Actuarial Cost Method

Post – Retirement Mortality Rates:

Healthy:

For General Members: 1994 Group Annuity Mortality Table (also known as the UP-94 Mortality Table) set back one year for males (from the male table) and set forward one year for females (from the female table).

For Safety Members: 1994 Group Annuity Mortality Table (also known as the UP-94 Mortality Table) set forward one year (from the male table) and set forward one year for beneficiaries (from the female table).

Disabled:

For General members, 1981 Disability Mortality Table (General) set back three years.
For Safety members, 1981 Disability Mortality Table (Safety).

Employee Contribution Rate:

For General members, 1994 Group Annuity (Male) Mortality Table (also known as the UP-94 Mortality Table) set back three years.

For Safety members, 1994 Group Annuity (Male) Mortality Table (also known as the UP-94 Mortality Table) set forward one year.

Optional Benefits:

1994 Group Annuity (Male) Mortality Table (also known as the UP-94 Mortality Table) for males with a three year setback.

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

Termination Rates Before Retirement:

Age	Rate (%)				
	Ordinary Mortality			Duty Mortality	
	General		Safety	General	Safety
	Male	Female			
25	0.02	0.02	0.01	0.01	0.01
30	0.03	0.03	0.01	0.01	0.02
35	0.04	0.04	0.02	0.01	0.02
40	0.06	0.05	0.02	0.01	0.03
45	0.08	0.07	0.03	0.01	0.04
50	0.17	0.12	0.04	0.01	0.05
55	0.48	0.17	0.05	0.01	0.06
60	0.86	0.22	0.00	0.01	0.00
65	1.56	0.28	0.00	0.01	0.00

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

Termination Rates Before Retirement (continued):

Age	Rate (%)						Safety
	Ordinary Disability						
	General Tier 1		General Tier 2		General Tier 3		
	Male	Female	Male	Female	Male	Female	
25	0.04	0.01	0.04	0.03	0.04	0.03	0.05
30	0.08	0.01	0.08	0.04	0.08	0.04	0.06
35	0.08	0.07	0.10	0.09	0.09	0.09	0.06
40	0.16	0.12	0.12	0.15	0.09	0.15	0.06
45	0.21	0.16	0.22	0.15	0.12	0.15	0.12
50	0.25	0.28	0.32	0.27	0.12	0.27	0.05
55	0.25	0.42	0.37	0.55	0.17	0.55	0.17
60	0.25	0.60	0.44	1.00	0.37	0.87	0.00
65	0.25	1.00	0.60	3.25	0.82	1.81	0.00

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

Termination Rates Before Retirement (continued):

Age	Rate (%)						Safety
	Duty Disability						
	General Tier 1		General Tier 2		General Tier 3		
	Male	Female	Male	Female	Male ⁽¹⁾	Female	
25	0.10	0.10	0.01	0.01	0.01	0.01	0.06
30	0.13	0.15	0.02	0.01	0.02	0.01	0.46
35	0.20	0.29	0.03	0.02	0.03	0.02	0.60
40	0.26	0.36	0.04	0.02	0.05	0.02	0.85
45	0.31	0.42	0.06	0.03	0.06	0.03	1.10
50	0.40	0.55	0.06	0.10	0.06	0.13	1.50
55	0.80	0.80	0.09	0.24	0.09	0.18	2.50
60	1.10	1.05	0.17	0.35	0.17	0.22	0.00
65	1.50	1.50	0.22	0.35	0.24	0.30	0.00

⁽¹⁾ Rates apply to members not covered under the enhanced benefit formulas. For those members covered by the enhanced benefit formulas the General Tier 2 rates apply.

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

Termination Rates Before Retirement (continued):

Age	Rate (%)						Safety
	Vested Termination (5+ years) ⁽²⁾						
	General Tier 1		General Tier 2		General Tier 3 ⁽³⁾		
	Male	Female	Male	Female	Male	Female	
25	1.19	10.00	1.62	0.43	5.00	5.00	1.18
30	3.50	7.50	0.85	0.71	4.50	4.50	1.90
35	4.50	3.13	1.12	1.00	3.00	3.00	1.25
40	3.25	2.46	1.45	0.94	3.00	2.81	1.00
45	2.00	1.16	1.33	0.84	2.50	1.65	0.43
50	0.75	0.37	1.01	0.65	0.65	0.65	0.20
55	0.36	0.23	0.94	0.69	0.50	0.50	0.06
60	0.23	0.15	0.87	0.73	0.50	0.50	0.00
65	0.00	0.00	0.00	0.00	0.00	0.00	0.00

⁽²⁾ Withdrawal rates are zero for members eligible to retire.

⁽³⁾ Rates apply to members not covered under the enhanced benefit formulas. For those members covered by the enhanced benefit formulas the General Tier 1 rates apply.

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

Termination Rates Before Retirement (continued):

Age	Rate (%)						Safety
	Ordinary Withdrawal (5+ years) ⁽⁴⁾						
	General Tier 1		General Tier 2		General Tier 3 ⁽⁵⁾		
	Male	Female	Male	Female	Male	Female	
25	3.50	2.21	7.83	2.75	3.50	2.19	2.00
30	2.39	1.25	5.47	2.50	2.39	1.79	1.18
35	1.28	0.80	4.11	2.25	1.28	1.12	0.78
40	0.58	0.50	2.47	2.00	0.58	1.02	0.50
45	0.25	0.09	1.55	1.42	0.25	0.56	0.35
50	0.00	0.00	0.68	1.26	0.00	0.00	0.10
55	0.00	0.00	0.21	0.77	0.00	0.00	0.00
60	0.00	0.00	0.16	0.45	0.00	0.00	0.00
65	0.00	0.00	0.00	0.00	0.00	0.00	0.00

⁽⁴⁾ Withdrawal rates are zero for members eligible to retire.

⁽⁵⁾ Rates apply to members not covered under the enhanced benefit formulas. For those members covered by the enhanced benefit formulas the General Tier 1 rates apply.

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

Termination Rates Before Retirement (continued):

The ordinary withdrawal rates on the previous page apply after five years of service. The following rates apply for those members with at least one year of service but less than five years of service.

Age	Rate (%)				
	General Tier 1		General Tier 2 and 3 ⁽⁶⁾		Safety
	Male	Female	Male	Female	
25	7.50	7.50	12.50	12.48	6.24
30	6.00	6.00	10.00	9.00	4.08
35	5.00	5.00	8.51	8.00	3.75
40	4.50	4.50	6.97	7.00	3.10
45	3.50	3.50	7.79	6.50	2.60
50	2.00	2.00	6.08	6.00	1.30
55	1.50	1.50	5.00	5.50	0.00
60	1.00	1.00	5.00	5.00	0.00
65	0.00	0.00	0.00	0.00	0.00

⁽⁶⁾ Rates apply to members not covered under the enhanced benefit formulas. For those members covered by the enhanced benefit formulas the General Tier 1 rates apply.

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

Termination Rates Before Retirement (continued):

The following ordinary withdrawal rates apply for those members with less than one year of service.

Age	Rate (%)				
	General Tier 1		General Tier 2 and 3 ⁽⁷⁾		Safety
	Male	Female	Male	Female	
25	15.00	45.00	10.00	13.45	8.00
30	15.00	30.00	10.00	10.57	5.00
35	15.00	20.00	10.00	10.57	3.75
40	15.00	15.00	10.00	10.57	3.10
45	15.00	14.00	10.00	9.82	2.60
50	15.00	10.00	10.00	7.53	1.30
55	15.00	10.00	10.00	7.41	0.00
60	15.00	10.00	10.00	7.41	0.00
65	0.00	0.00	0.00	0.00	0.00

⁽⁷⁾ Rates apply to members not covered under the enhanced benefit formulas. For those members covered by the enhanced benefit formulas the General Tier 1 rates apply.

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	Retirement Probability	
	Tier 1	
	General Male	General Female
45	-	-
46	-	-
47	-	-
48	-	-
49	-	-
50	3.29%	3.15%
51	3.43	2.37
52	5.33	5.65
53	9.88	8.42
54	14.57	11.96
55	16.96	14.83
56	16.96	17.00
57	10.18	10.67
58	10.18	11.67
59	19.89	16.00
60	24.76	18.00
61	15.19	13.00
62	43.57	40.00
63	24.71	25.00
64	34.11	20.00
65	46.73	30.09
66	35.05	35.10
67	34.00	35.10
68	30.40	35.10
69	28.96	50.15
70	100.00	100.00

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

Retirement Rates (Enhanced) (continued):

Age	Retirement Probability	
	Tier 3	
	General Male	General Female
45	-	-
46	-	-
47	-	-
48	-	-
49	-	-
50	2.71%	2.92%
51	2.71	2.12
52	4.00	4.49
53	7.43	6.59
54	10.97	9.50
55	13.06	11.82
56	13.17	13.70
57	8.20	9.13
58	8.22	9.83
59	15.53	13.41
60	19.97	15.22
61	12.17	11.23
62	34.95	33.74
63	20.42	21.33
64	29.06	19.72
65	46.73	30.09
66	35.05	35.10
67	34.00	35.10
68	30.40	35.10
69	28.96	50.15
70	100.00	100.00

^(B) Rates apply to members who choose not to convert their prior Tier 2 service to Tier 3.

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

Retirement Rates (Enhanced) (continued):

Age	Retirement Probability		Safety
	Tier 3 ⁽⁹⁾		
	General Male	General Female	
41	-	-	
42	-	-	
43	-	-	
44	-	-	
45	-	-	
46	-	-	
47	-	-	
48	-	-	
49	-	-	
50	3.29%	3.15%	33.00%
51	3.43	2.37	25.00
52	5.33	5.65	25.00
53	9.88	8.42	33.00
54	14.57	11.96	33.00
55	16.96	14.83	50.00
56	16.96	17.00	50.00
57	10.18	10.67	50.00
58	10.18	11.67	50.00
59	19.89	16.00	50.00
60	24.76	18.00	100.00
61	15.19	13.00	100.00
62	43.57	40.00	100.00
63	24.71	25.00	100.00
64	34.11	20.00	100.00
65	46.73	30.09	100.00
66	35.05	35.10	100.00
67	34.00	35.10	100.00
68	30.40	35.10	100.00
69	28.96	50.15	100.00
70	100.00	100.00	100.00

⁽⁹⁾ Rates apply to members who choose to convert their prior Tier 2 service to Tier 3.

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

Retirement Rates (Non-enhanced) (continued):

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

Age	Retirement Probability		
	Tier 1		Tier 2
	General Male	General Female	General Male
45	-	-	
46	-	-	
47	-	-	
48	-	-	
49	-	-	
50	3.00%	3.15%	2.95%
51	3.43	2.37	2.49
52	3.43	2.21	2.68
53	3.29	2.50	3.05
54	2.99	4.88	3.38
55	10.18	6.50	6.36
56	10.18	9.00	6.02
57	10.18	10.00	5.68
58	10.18	11.00	5.76
59	10.16	12.00	5.76
60	24.76	18.00	14.39
61	15.19	13.00	12.68
62	43.57	40.00	15.80
63	24.71	25.00	11.56
64	34.11	20.00	10.82
65	46.73	30.09	19.44
66	35.05	35.10	14.71
67	34.00	35.10	11.58
68	30.40	35.10	37.88
69	28.96	50.15	40.85
70	100.00	100.00	100.00

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

Retirement Rates (Non-enhanced) (continued):

Age	Retirement Probability			
	Tier 2	Tier 3		Safety
	General Female	General Male	General Female	
45	-	-	-	0.10%
46	-	-	-	0.11
47	-	-	-	0.12
48	-	-	-	0.12
49	-	-	-	0.15
50	3.73%	1.00%	2.23%	0.20
51	3.71	0.54	1.38	0.25
52	3.91	0.01	0.98	0.30
53	4.10	0.10	1.10	0.35
54	5.04	0.19	2.14	0.75
55	4.58	1.36	2.79	1.50
56	5.01	1.80	3.79	2.00
57	5.34	2.25	4.51	3.00
58	4.75	2.34	4.32	4.00
59	4.55	2.42	5.64	20.00
60	14.96	5.61	6.89	17.00
61	12.33	3.08	5.90	17.00
62	17.21	9.09	14.95	18.00
63	7.44	7.54	10.33	20.00
64	27.60	13.89	18.88	100.00
65	29.16	26.69	16.60	100.00
66	25.33	22.06	20.93	100.00
67	30.78	25.53	22.49	100.00
68	41.42	30.40	35.10	100.00
69	33.33	28.96	50.15	100.00
70	100.00	100.00	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 current deferred vested members, we make the following retirement assumption:

General Age: 62
Safety Age: 55

We assume that 40% of future deferred vested members are reciprocal. For reciprocals, we assume 5.25% 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.

**Inclusion of Deferred Vested
Members:**

All deferred vested members are included in the valuation.

Percent Married:

80% of male members; 55% of female members.

Age of Spouse:

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

**Conversion of Prior
Tier 2 Service:**

75% of all eligible Tier 2 members will elect to convert to (unenhanced) Tier 3 after five years of service. 10% of all eligible Tier 3 members will convert their prior Tier 2 services to Tier 3 service.

Terminal Pay Assumptions:

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

General Tier 1: 11.47%
General Tier 2: 3.32%
General Tier 3: 8.50%
Safety: 11.72%

To avoid creating an inequity among members, there will be no change in member basic benefit contribution rates as a result of this assumption.

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

Net Investment Return: 8.00%

**Employee Contribution
Crediting Rate:** 8.00%

Consumer Price Index: Increase of 4.25% per year; Retiree COLA increases due to CPI subject to a 3.0% maximum change per year except for Tier 3 disability benefits and Tier 2 benefits which are subject to a 4.0% maximum change per year.

Salary Increases:

Annual Rate of Compensation Increase		
Inflation: 4.25% Plus the following Merit and Longevity		
Age	General	Safety
20	8.20%	6.16%
25	5.20%	4.76%
30	3.27%	3.12%
35	2.37%	1.86%
40	1.89%	1.44%
45	1.51%	1.16%
50	1.13%	0.86%
55	0.85%	0.73%
60	0.70%	0.28%

There are assumed to be no "across the board" salary increases (other than inflation).

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



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

Actuarial Cost Method:

Entry Age Normal Actuarial Cost Method. Entry Age is the age at the time the participant would have commenced participation if the plan had always been in existence. Normal Cost and Actuarial Accrued Liability are calculated on an individual basis and are allocated by salaries, with Normal Cost determined as if the current benefit accrual rate had always been in effect. The current amortization period is 20 years as of December 31, 2002.

Changes in Assumptions:

The valuation interest rate was lowered from 8.35% to 8.00%. All other actuarial assumptions remain unchanged from the December 31, 2001 valuation, as modified by the November 20, 2002 benefit enhancement study.

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:

<i>General Tier 1</i>	All General members hired before August 1, 1980 and electing not to transfer to Tier 2 Plan.
<i>General Tier 2</i>	All General members hired on or after August 1, 1980 and all General members hired before August 1, 1980 electing to transfer to the Tier 2 Plan. Effective October 1, 2002, Tier 2 will be eliminated and all County employees (excluding CNA employees) in Tier 2 will be placed in Tier 3.
<i>General Tier 3</i>	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 General members hired on or after October 1, 2002 will be placed in Tier 3.
<i>Safety</i>	All Safety members.

Final Compensation for Benefit Determination:

<i>General Tier 1, Tier 3, and Safety</i>	Highest consecutive twelve months of compensation earnable. (FAS1)
<i>General Tier 2</i>	Highest consecutive thirty-six months of compensation earnable. (FAS3)

Social Security Primary Insurance Amount:

<i>General Tier 2</i>	Estimated Social Security award at age 62 assuming level future earnings. (PIA)
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SECTION 4: Reporting Information for the Contra Costa County Employees' Retirement Association

Service:

<i>General Tier 1 and 3</i>	Years of service. (Yrs)
<i>General Tier 2</i>	Years of service up to a maximum of 30 years. (Yrs30)

Service Retirement

Eligibility:

<i>General</i>	Age 50 with 10 years of service, or age 70 regardless of service, or after 30 years, regardless of age.
<i>Safety</i>	Age 50 with 10 years of service, or age 70 regardless of service, or after 20 years, regardless of age.

Benefit Formula:

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

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

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 (Non-enhanced)(§31664)</i>	50	(2.00%xFAS1xYrs)
	55	(2.62%xFAS1xYrs)
	60	(2.62%xFAS1xYrs)

Maximum Benefit 100% of FAS1

<i>General Tier 1 and Tier 3 (Enhanced) (§31676.15)</i>	Retirement Age	Benefit Formula
	50	(1.43%xFAS1 – 1/3x1.43%x\$350)x Yrs
	55	(2.00%xFAS1 – 1/3x2.00%x\$350)x Yrs
	60	(2.26%xFAS1 – 1/3x2.26%x\$350)x Yrs
	62	(2.37%xFAS1 – 1/3x2.37%x\$350)x Yrs
	65	(2.42%xFAS1 – 1/3x2.42%x\$350)x Yrs

Maximum Benefit 100% of FAS1

<i>Safety (Enhanced)(§31664.1)</i>	50	(3.00%xFAS1xYrs)
	55	(3.00%xFAS1xYrs)
	60	(3.00%xFAS1xYrs)

Maximum Benefit 100% of FAS1

Maximum Benefit: 100% of Highest Average Compensation (§31664.1, §31676.16).

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

Per Year of Service

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 and definition of disability is more strict than Tier 1 Plan (§31720.1).

Benefit Formula

Per Year of Service

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

Per Year of Service

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

Per Year of Service

50% of the Final Compensation or Service Retirement benefit, if larger (§31727.4).

General Tier 2 and General Tier 3

Eligibility

No age or service requirements (§31720).

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

<i>Benefit Formula</i>	
<i>Per Year of Service</i>	40% of Final Compensation plus 10% of Final Compensation for each minor child (maximum of three) (§31727.01).
<i>Offset</i>	Disability benefits are offset by other plans of the County except Workers Compensation and Social Security.

Pre-Retirement Death:

<i>General Tier 1 and Tier 3, and Safety</i>	
<i>Eligibility - A</i>	None.
<i>Benefit - A</i>	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
<i>Eligibility - B</i>	Five years of service.
<i>Benefit - B</i>	Option 2 (100% continuation) service retirement benefit payable to designated beneficiary.
<i>Death in line of duty</i>	50% of Final compensation.
<i>General Tier 2</i>	
<i>Eligibility - A</i>	None.
<i>Benefit - A</i>	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, 20% 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
<i>Eligibility - B</i>	Ten years of service.
<i>Benefit - B</i>	Option 2 (100% continuation) service retirement 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 (§31760.1).
\$5,000 lump sum benefit payable to member's beneficiary (§31789.12).

Line-of-Duty Disability

100% of members allowance continued to eligible spouse (§31786).

General Tier 2

Service or

Disability Retirement

60% of member's unmodified allowance continued to eligible spouse plus 20% 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).

Post-retirement

Cost-of-Living Benefits:

*General Tier 1 and Tier 3,
and Safety*

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.

General Tier 2

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

County Contributions:

Determined by the Entry-Age Normal Cost method. The total Unfunded Actuarial Accrued Liability is being funded as a level percent of payroll over the twenty-year period as of December 31, 2002.

Member Contributions:

Please refer to Appendix A for the specific rates.

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

General Tier 1 and Tier 3 (Non-enhanced)

Basic Provide for one-half of the \$31676.11 benefit at age 55.
Cost-of-Living Provide for one-half of future Cost-of-Living costs.

General Tier 2

Basic 40% of the full \$31676.11 employee contribution rate.
Cost-of-Living Provide for one-half of future Cost-of-Living costs.

Safety (Non-enhanced)

Basic Provide for one-half of the \$31664 benefit 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.

Safety (Enhanced)

Basic Provide for an average annuity at age 50 equal to 1/100 of FAS1.
Cost-of-Living 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 before April 1, 1973 and all safety under the enhanced benefit formula will be exempt from paying member contributions after 30 years of service.

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

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

EXHIBIT VI

GFOA Specifications – Analysis of Financial Experience

Actual financial experience will not coincide exactly with assumed financial experience because the future cannot be predicted with certainty.

An actuarial investigation reveals the difference between actual and assumed experience in the various risk areas. Once a difference has been observed to be sizeable and persistent, the assumed experience should usually be changed to reflect observed reality.

Difference between actual and assumed experience result in changes in liabilities, which are called actuarial gains (if experience was financially favorable) and actuarial losses (if experience was financially unfavorable). In the actuarial valuation which are conducted to determine contribution rates, such gains and losses are commonly spread over the active employee's periods of future service, or financed over a fixed or variable future period either on a level dollar basis or as a level percentage of total active payroll.

One of the more easily understood types of actuarial investigations is the gain/loss analysis of changes in accrued liabilities. While considerable data processing work and actuarial work is needed to perform a gain/loss analysis, the significant results can be presented in a concise, one-page format. Such gain/loss knowledge is very helpful in understanding the financial condition of a retirement system, and in adopting sound financial assumptions for the retirement system.

This information will be provided separate from the valuation report at a later date.

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

Appendix A

Member Contribution Rates

General Tier 1 (Non-enhanced) Members' Contribution Rates for Members not receiving Benefits under 2% at 55 from the December 31, 2002 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Recommended Assumptions

Entry Age	Basic		COLA		Total	
	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
15	4.35%	6.53%	2.19%	3.28%	6.54%	9.81%
16	4.35%	6.53%	2.19%	3.28%	6.54%	9.81%
17	4.35%	6.53%	2.19%	3.28%	6.54%	9.81%
18	4.35%	6.53%	2.19%	3.28%	6.54%	9.81%
19	4.35%	6.53%	2.19%	3.28%	6.54%	9.81%
20	4.35%	6.53%	2.19%	3.28%	6.54%	9.81%
21	4.35%	6.53%	2.19%	3.28%	6.54%	9.81%
22	4.35%	6.53%	2.19%	3.28%	6.54%	9.81%
23	4.35%	6.53%	2.19%	3.28%	6.54%	9.81%
24	4.37%	6.55%	2.19%	3.29%	6.56%	9.84%
25	4.38%	6.57%	2.20%	3.30%	6.58%	9.87%
26	4.40%	6.60%	2.21%	3.31%	6.61%	9.91%
27	4.42%	6.63%	2.22%	3.33%	6.64%	9.96%
28	4.45%	6.67%	2.23%	3.35%	6.68%	10.02%
29	4.47%	6.71%	2.25%	3.37%	6.72%	10.08%
30	4.51%	6.76%	2.26%	3.39%	6.77%	10.15%
31	4.54%	6.81%	2.28%	3.42%	6.82%	10.23%
32	4.57%	6.86%	2.30%	3.45%	6.87%	10.31%
33	4.61%	6.92%	2.32%	3.48%	6.93%	10.40%
34	4.65%	6.98%	2.34%	3.51%	6.99%	10.49%
35	4.70%	7.05%	2.36%	3.54%	7.06%	10.59%
36	4.74%	7.11%	2.38%	3.57%	7.12%	10.68%
37	4.79%	7.18%	2.41%	3.61%	7.20%	10.79%

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 from the December 31, 2002 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Recommended Assumptions

Entry Age	Basic		COLA		Total	
	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
38	4.84%	7.26%	2.43%	3.64%	7.27%	10.90%
39	4.89%	7.33%	2.45%	3.68%	7.34%	11.01%
40	4.94%	7.41%	2.48%	3.72%	7.42%	11.13%
41	4.99%	7.49%	2.51%	3.76%	7.50%	11.25%
42	5.05%	7.57%	2.53%	3.80%	7.58%	11.37%
43	5.10%	7.65%	2.56%	3.84%	7.66%	11.49%
44	5.16%	7.74%	2.59%	3.89%	7.75%	11.63%
45	5.22%	7.83%	2.62%	3.93%	7.84%	11.76%
46	5.29%	7.93%	2.65%	3.98%	7.94%	11.91%
47	5.35%	8.02%	2.69%	4.03%	8.04%	12.05%
48	5.41%	8.12%	2.72%	4.08%	8.13%	12.20%
49	5.48%	8.22%	2.75%	4.13%	8.23%	12.35%
50	5.55%	8.33%	2.79%	4.18%	8.34%	12.51%
51	5.63%	8.44%	2.83%	4.24%	8.46%	12.68%
52	5.70%	8.55%	2.86%	4.29%	8.56%	12.84%
53	5.77%	8.66%	2.90%	4.35%	8.67%	13.01%
54	5.85%	8.78%	2.94%	4.41%	8.79%	13.19%
55	5.85%	8.78%	2.94%	4.41%	8.79%	13.19%
56	5.85%	8.78%	2.94%	4.41%	8.79%	13.19%
57	5.85%	8.78%	2.94%	4.41%	8.79%	13.19%
58	5.85%	8.78%	2.94%	4.41%	8.79%	13.19%
59	5.85%	8.78%	2.94%	4.41%	8.79%	13.19%
60	5.85%	8.78%	2.94%	4.41%	8.79%	13.19%
Interest:	8.00%					
Inflation:	4.25%					
COLA Loading:	50.22%					
Mortality:	UP1994 (Male, with ages set back three years)					

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 from the December 31, 2002 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Recommended Assumptions

Entry Age	Basic		COLA		Total	
	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
15	3.69%	5.54%	2.17%	3.26%	5.86%	8.80%
16	3.69%	5.54%	2.17%	3.26%	5.86%	8.80%
17	3.69%	5.54%	2.17%	3.26%	5.86%	8.80%
18	3.69%	5.54%	2.17%	3.26%	5.86%	8.80%
19	3.69%	5.54%	2.17%	3.26%	5.86%	8.80%
20	3.69%	5.54%	2.17%	3.26%	5.86%	8.80%
21	3.69%	5.54%	2.17%	3.26%	5.86%	8.80%
22	3.70%	5.55%	2.17%	3.26%	5.87%	8.81%
23	3.71%	5.56%	2.18%	3.27%	5.89%	8.83%
24	3.72%	5.58%	2.19%	3.28%	5.91%	8.86%
25	3.73%	5.60%	2.19%	3.29%	5.92%	8.89%
26	3.75%	5.63%	2.21%	3.31%	5.96%	8.94%
27	3.77%	5.66%	2.22%	3.33%	5.99%	8.99%
28	3.80%	5.70%	2.23%	3.35%	6.03%	9.05%
29	3.83%	5.74%	2.25%	3.38%	6.08%	9.12%
30	3.86%	5.79%	2.27%	3.40%	6.13%	9.19%
31	3.89%	5.83%	2.29%	3.43%	6.18%	9.26%
32	3.92%	5.88%	2.31%	3.46%	6.23%	9.34%
33	3.96%	5.94%	2.33%	3.49%	6.29%	9.43%
34	4.00%	6.00%	2.35%	3.53%	6.35%	9.53%
35	4.03%	6.05%	2.37%	3.56%	6.40%	9.61%
36	4.08%	6.12%	2.40%	3.60%	6.48%	9.72%
37	4.12%	6.18%	2.43%	3.64%	6.55%	9.82%
38	4.17%	6.25%	2.45%	3.68%	6.62%	9.93%
39	4.21%	6.32%	2.48%	3.72%	6.69%	10.04%

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 from the December 31, 2002 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Recommended Assumptions

Entry Age	Basic		COLA		Total	
	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
40	4.26%	6.39%	2.51%	3.76%	6.77%	10.15%
41	4.31%	6.46%	2.53%	3.80%	6.84%	10.26%
42	4.36%	6.54%	2.57%	3.85%	6.93%	10.39%
43	4.41%	6.62%	2.59%	3.89%	7.00%	10.51%
44	4.47%	6.70%	2.63%	3.94%	7.10%	10.64%
45	4.52%	6.78%	2.66%	3.99%	7.18%	10.77%
46	4.58%	6.87%	2.69%	4.04%	7.27%	10.91%
47	4.64%	6.96%	2.73%	4.09%	7.37%	11.05%
48	4.70%	7.05%	2.77%	4.15%	7.47%	11.20%
49	4.76%	7.14%	2.80%	4.20%	7.56%	11.34%
50	4.83%	7.24%	2.84%	4.26%	7.67%	11.50%
51	4.89%	7.34%	2.88%	4.32%	7.77%	11.66%
52	4.96%	7.44%	2.91%	4.37%	7.87%	11.81%
53	5.03%	7.54%	2.96%	4.44%	7.99%	11.98%
54	5.10%	7.65%	3.00%	4.50%	8.10%	12.15%
55	5.10%	7.65%	3.00%	4.50%	8.10%	12.15%
56	5.10%	7.65%	3.00%	4.50%	8.10%	12.15%
57	5.10%	7.65%	3.00%	4.50%	8.10%	12.15%
58	5.10%	7.65%	3.00%	4.50%	8.10%	12.15%
59	5.10%	7.65%	3.00%	4.50%	8.10%	12.15%
60	5.10%	7.65%	3.00%	4.50%	8.10%	12.15%

Interest: 8.00%
 Inflation: 4.25%
 COLA Loading: 58.83%
 Mortality: UP1994 (Male, with ages set back three years)

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

General Tier 2 Members' Contribution Rates for Members not receiving Benefits under 2% at 55 from the December 31, 2002 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Recommended Assumptions

Entry Age	Basic	COLA	Total
15	2.48%	1.25%	3.73%
16	2.48%	1.25%	3.73%
17	2.48%	1.25%	3.73%
18	2.48%	1.25%	3.73%
19	2.48%	1.25%	3.73%
20	2.48%	1.25%	3.73%
21	2.48%	1.25%	3.73%
22	2.48%	1.25%	3.73%
23	2.49%	1.25%	3.74%
24	2.49%	1.25%	3.74%
25	2.50%	1.26%	3.76%
26	2.51%	1.26%	3.77%
27	2.52%	1.27%	3.79%
28	2.54%	1.27%	3.81%
29	2.55%	1.28%	3.83%
30	2.57%	1.29%	3.86%
31	2.59%	1.30%	3.89%
32	2.61%	1.31%	3.92%
33	2.63%	1.32%	3.95%
34	2.66%	1.33%	3.99%
35	2.68%	1.35%	4.03%
36	2.71%	1.36%	4.07%
37	2.73%	1.37%	4.10%
38	2.76%	1.39%	4.15%
39	2.79%	1.40%	4.19%
40	2.82%	1.42%	4.24%
41	2.85%	1.43%	4.28%
42	2.88%	1.45%	4.33%

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

General Tier 2 Members' Contribution Rates for Members not receiving Benefits under 2% at 55 from the December 31, 2002 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Recommended Assumptions

Entry Age	Basic	COLA	Total
43	2.91%	1.46%	4.37%
44	2.95%	1.48%	4.43%
45	2.98%	1.50%	4.48%
46	3.02%	1.51%	4.53%
47	3.05%	1.53%	4.58%
48	3.09%	1.55%	4.64%
49	3.13%	1.57%	4.70%
50	3.17%	1.59%	4.76%
51	3.21%	1.61%	4.82%
52	3.25%	1.63%	4.88%
53	3.38%	1.70%	5.08%
54	3.51%	1.76%	5.27%
55	3.51%	1.76%	5.27%
56	3.51%	1.76%	5.27%
57	3.51%	1.76%	5.27%
58	3.51%	1.76%	5.27%
59	3.51%	1.76%	5.27%
60	3.51%	1.76%	5.27%

Interest: 8.00%
 Inflation: 4.25%
 COLA Loading: 50.22%
 Mortality: UP1994 (Male, with ages set back three years)

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

General Tier 3 (Non-enhanced) Members' Contribution Rates for Members not receiving Benefits under 2% at 55 from the December 31, 2002 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Recommended Assumptions

Entry Age	Basic		COLA		Total	
	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
15	4.35%	6.53%	1.55%	2.33%	5.90%	8.86%
16	4.35%	6.53%	1.55%	2.33%	5.90%	8.86%
17	4.35%	6.53%	1.55%	2.33%	5.90%	8.86%
18	4.35%	6.53%	1.55%	2.33%	5.90%	8.86%
19	4.35%	6.53%	1.55%	2.33%	5.90%	8.86%
20	4.35%	6.53%	1.55%	2.33%	5.90%	8.86%
21	4.35%	6.53%	1.55%	2.33%	5.90%	8.86%
22	4.35%	6.53%	1.55%	2.33%	5.90%	8.86%
23	4.35%	6.53%	1.56%	2.34%	5.91%	8.87%
24	4.37%	6.55%	1.56%	2.34%	5.93%	8.89%
25	4.38%	6.57%	1.57%	2.35%	5.95%	8.92%
26	4.40%	6.60%	1.57%	2.36%	5.97%	8.96%
27	4.42%	6.63%	1.58%	2.37%	6.00%	9.00%
28	4.45%	6.67%	1.59%	2.38%	6.04%	9.05%
29	4.47%	6.71%	1.60%	2.40%	6.07%	9.11%
30	4.51%	6.76%	1.61%	2.42%	6.12%	9.18%
31	4.54%	6.81%	1.62%	2.43%	6.16%	9.24%
32	4.57%	6.86%	1.63%	2.45%	6.20%	9.31%
33	4.61%	6.92%	1.65%	2.47%	6.26%	9.39%
34	4.65%	6.98%	1.67%	2.50%	6.32%	9.48%
35	4.70%	7.05%	1.68%	2.52%	6.38%	9.57%
36	4.74%	7.11%	1.69%	2.54%	6.43%	9.65%
37	4.79%	7.18%	1.71%	2.57%	6.50%	9.75%
38	4.84%	7.26%	1.73%	2.59%	6.57%	9.85%
39	4.89%	7.33%	1.75%	2.62%	6.64%	9.95%
40	4.94%	7.41%	1.77%	2.65%	6.71%	10.06%

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

General Tier 3 (Non-enhanced) Members' Contribution Rates for Members not receiving Benefits under 2% at 55 from the December 31, 2002 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Recommended Assumptions

Entry Age	Basic		COLA		Total	
	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
41	4.99%	7.49%	1.79%	2.68%	6.78%	10.17%
42	5.05%	7.57%	1.81%	2.71%	6.86%	10.28%
43	5.10%	7.65%	1.83%	2.74%	6.93%	10.39%
44	5.16%	7.74%	1.85%	2.77%	7.01%	10.51%
45	5.22%	7.83%	1.87%	2.80%	7.09%	10.63%
46	5.29%	7.93%	1.89%	2.83%	7.18%	10.76%
47	5.35%	8.02%	1.91%	2.87%	7.26%	10.89%
48	5.41%	8.12%	1.93%	2.90%	7.34%	11.02%
49	5.48%	8.22%	1.96%	2.94%	7.44%	11.16%
50	5.55%	8.33%	1.99%	2.98%	7.54%	11.31%
51	5.63%	8.44%	2.01%	3.02%	7.64%	11.46%
52	5.70%	8.55%	2.04%	3.06%	7.74%	11.61%
53	5.77%	8.66%	2.07%	3.10%	7.84%	11.76%
54	5.85%	8.78%	2.09%	3.14%	7.94%	11.92%
55	5.85%	8.78%	2.09%	3.14%	7.94%	11.92%
56	5.85%	8.78%	2.09%	3.14%	7.94%	11.92%
57	5.85%	8.78%	2.09%	3.14%	7.94%	11.92%
58	5.85%	8.78%	2.09%	3.14%	7.94%	11.92%
59	5.85%	8.78%	2.09%	3.14%	7.94%	11.92%
60	5.85%	8.78%	2.09%	3.14%	7.94%	11.92%

Interest: 8.00%
 Inflation: 4.25%
 COLA Loading: 35.75%
 Mortality: UP1994 (Male, with ages set back three years)

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 from the December 31, 2002 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Recommended Assumptions

Entry Age	Basic		COLA		Total	
	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
15	3.69%	5.54%	1.81%	2.71%	5.50%	8.25%
16	3.69%	5.54%	1.81%	2.71%	5.50%	8.25%
17	3.69%	5.54%	1.81%	2.71%	5.50%	8.25%
18	3.69%	5.54%	1.81%	2.71%	5.50%	8.25%
19	3.69%	5.54%	1.81%	2.71%	5.50%	8.25%
20	3.69%	5.54%	1.81%	2.71%	5.50%	8.25%
21	3.69%	5.54%	1.81%	2.71%	5.50%	8.25%
22	3.70%	5.55%	1.81%	2.72%	5.51%	8.27%
23	3.71%	5.56%	1.81%	2.72%	5.52%	8.28%
24	3.72%	5.58%	1.82%	2.73%	5.54%	8.31%
25	3.73%	5.60%	1.83%	2.74%	5.56%	8.34%
26	3.75%	5.63%	1.84%	2.76%	5.59%	8.39%
27	3.77%	5.66%	1.85%	2.77%	5.62%	8.43%
28	3.80%	5.70%	1.86%	2.79%	5.66%	8.49%
29	3.83%	5.74%	1.87%	2.81%	5.70%	8.55%
30	3.86%	5.79%	1.89%	2.83%	5.75%	8.62%
31	3.89%	5.83%	1.91%	2.86%	5.80%	8.69%
32	3.92%	5.88%	1.92%	2.88%	5.84%	8.76%
33	3.96%	5.94%	1.94%	2.91%	5.90%	8.85%
34	4.00%	6.00%	1.96%	2.94%	5.96%	8.94%
35	4.03%	6.05%	1.97%	2.96%	6.00%	9.01%
36	4.08%	6.12%	1.99%	2.99%	6.07%	9.11%
37	4.12%	6.18%	2.02%	3.03%	6.14%	9.21%
38	4.17%	6.25%	2.04%	3.06%	6.21%	9.31%
39	4.21%	6.32%	2.06%	3.09%	6.27%	9.41%

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 from the December 31, 2002 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Recommended Assumptions

Entry Age	Basic		COLA		Total	
	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
40	4.26%	6.39%	2.09%	3.13%	6.35%	9.52%
41	4.31%	6.46%	2.11%	3.16%	6.42%	9.62%
42	4.36%	6.54%	2.13%	3.20%	6.49%	9.74%
43	4.41%	6.62%	2.16%	3.24%	6.57%	9.86%
44	4.47%	6.70%	2.19%	3.28%	6.66%	9.98%
45	4.52%	6.78%	2.21%	3.32%	6.73%	10.10%
46	4.58%	6.87%	2.24%	3.36%	6.82%	10.23%
47	4.64%	6.96%	2.27%	3.41%	6.91%	10.37%
48	4.70%	7.05%	2.30%	3.45%	7.00%	10.50%
49	4.76%	7.14%	2.33%	3.50%	7.09%	10.64%
50	4.83%	7.24%	2.36%	3.54%	7.19%	10.78%
51	4.89%	7.34%	2.39%	3.59%	7.28%	10.93%
52	4.96%	7.44%	2.43%	3.64%	7.39%	11.08%
53	5.03%	7.54%	2.46%	3.69%	7.49%	11.23%
54	5.10%	7.65%	2.49%	3.74%	7.59%	11.39%
55	5.10%	7.65%	2.49%	3.74%	7.59%	11.39%
56	5.10%	7.65%	2.49%	3.74%	7.59%	11.39%
57	5.10%	7.65%	2.49%	3.74%	7.59%	11.39%
58	5.10%	7.65%	2.49%	3.74%	7.59%	11.39%
59	5.10%	7.65%	2.49%	3.74%	7.59%	11.39%
60	5.10%	7.65%	2.49%	3.74%	7.59%	11.39%

Interest: 8.00%
 Inflation: 4.25%
 COLA Loading: 48.96%
 Mortality: UP1994 (Male, with ages set back three years)

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

Safety (Non-enhanced) Members' Contribution Rates for Members not receiving Benefits under 3% at 50 from the December 31, 2002 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Recommended Assumptions

Entry Age	Basic	COLA	Total
15	8.21%	4.13%	12.34%
16	8.21%	4.13%	12.34%
17	8.21%	4.13%	12.34%
18	8.21%	4.13%	12.34%
19	8.21%	4.13%	12.34%
20	8.21%	4.13%	12.34%
21	8.21%	4.13%	12.34%
22	8.22%	4.13%	12.35%
23	8.24%	4.14%	12.38%
24	8.26%	4.15%	12.41%
25	8.29%	4.17%	12.46%
26	8.33%	4.19%	12.52%
27	8.37%	4.21%	12.58%
28	8.42%	4.23%	12.65%
29	8.49%	4.26%	12.75%
30	8.55%	4.30%	12.85%
31	8.63%	4.34%	12.97%
32	8.71%	4.38%	13.09%
33	8.80%	4.42%	13.22%
34	8.89%	4.47%	13.36%
35	8.98%	4.52%	13.50%
36	9.08%	4.57%	13.65%
37	9.19%	4.62%	13.81%
38	9.30%	4.67%	13.97%
39	9.40%	4.73%	14.13%
40	9.51%	4.78%	14.29%
41	9.63%	4.84%	14.47%
42	9.74%	4.90%	14.64%

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

Safety (Non-enhanced) Members' Contribution Rates for Members not receiving Benefits under 3% at 50 from the December 31, 2002 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Recommended Assumptions

Entry Age	Basic	COLA	Total
43	9.86%	4.96%	14.82%
44	9.98%	5.02%	15.00%
45	10.11%	5.08%	15.19%
46	10.24%	5.15%	15.39%
47	10.37%	5.21%	15.58%
48	10.51%	5.28%	15.79%
49	10.65%	5.35%	16.00%
50	10.65%	5.35%	16.00%
51	10.65%	5.35%	16.00%
52	10.65%	5.35%	16.00%
53	10.65%	5.35%	16.00%
54	10.65%	5.35%	16.00%
55	10.65%	5.35%	16.00%
56	10.65%	5.35%	16.00%
57	10.65%	5.35%	16.00%
58	10.65%	5.35%	16.00%
59	10.65%	5.35%	16.00%
60	10.65%	5.35%	16.00%

Interest: 8.00%
 Inflation: 4.25%
 COLA Loading: 50.26%
 Mortality: UP1994 (Male, with ages set forward one year)

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

Safety (Enhanced) Members' Contribution Rates for Members receiving Benefits under 3% at 50 from the December 31, 2002 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Recommended Assumptions

Entry Age	Basic	COLA	Total
15	8.21%	5.69%	13.90%
16	8.21%	5.69%	13.90%
17	8.21%	5.69%	13.90%
18	8.21%	5.69%	13.90%
19	8.21%	5.69%	13.90%
20	8.21%	5.69%	13.90%
21	8.21%	5.69%	13.90%
22	8.22%	5.69%	13.91%
23	8.24%	5.70%	13.94%
24	8.26%	5.72%	13.98%
25	8.29%	5.74%	14.03%
26	8.33%	5.77%	14.10%
27	8.37%	5.80%	14.17%
28	8.42%	5.83%	14.25%
29	8.49%	5.88%	14.37%
30	8.55%	5.92%	14.47%
31	8.63%	5.97%	14.60%
32	8.71%	6.03%	14.74%
33	8.80%	6.09%	14.89%
34	8.89%	6.15%	15.04%
35	8.98%	6.22%	15.20%
36	9.08%	6.29%	15.37%
37	9.19%	6.36%	15.55%
38	9.30%	6.44%	15.74%
39	9.40%	6.51%	15.91%
40	9.51%	6.59%	16.10%
41	9.63%	6.67%	16.30%
42	9.74%	6.75%	16.49%

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

Safety (Enhanced) Members' Contribution Rates for Members receiving Benefits under 3% at 50 from the December 31, 2002 Actuarial Valuation (Expressed as a Percentage of Monthly Payroll)

Calculated Under Recommended Assumptions

Entry Age	Basic	COLA	Total
43	9.86%	6.83%	16.69%
44	9.98%	6.91%	16.89%
45	10.11%	7.00%	17.11%
46	10.24%	7.09%	17.33%
47	10.37%	7.18%	17.55%
48	10.51%	7.28%	17.79%
49	10.65%	7.37%	18.02%
50	10.65%	7.37%	18.02%
51	10.65%	7.37%	18.02%
52	10.65%	7.37%	18.02%
53	10.65%	7.37%	18.02%
54	10.65%	7.37%	18.02%
55	10.65%	7.37%	18.02%
56	10.65%	7.37%	18.02%
57	10.65%	7.37%	18.02%
58	10.65%	7.37%	18.02%
59	10.65%	7.37%	18.02%
60	10.65%	7.37%	18.02%

Interest: 8.00%
 Inflation: 4.25%
 COLA Loading: 69.25%
 Mortality: UP1994 (Male, with ages set forward one year)

168910/05337.001-(Released 9/15/03)