



Public Pension
Professionals, Inc.

Fresno County Employees' Retirement Association

Actuarial Valuation as of June 30, 2004



Final

June 22, 2005



Actuaries you can understand

Table of Contents

HIGHLIGHTS	1
BOARD SUMMARY	2
A. Benefit Terminology	3
B. Major Events	5
C. Funded Position	7
D. Employer Contribution Rates	13
E. Member Contribution Rates	19
TECHNICAL INFORMATION	24
A. Asset Information	24
B. Liability Information	30
C. Funded Percentage	43
D. Employer Contribution Rates	47
E. Summary of Major Plan Provisions – General Members	54
F. Member Contribution Rates – General Members	59
G. Summary of Major Plan Provisions – Safety Members	64
H. Member Contribution Rates – Safety Members	69
I. Summary of Actuarial Assumptions and Funding Methods	74
J. Member Information	86
K. Data Adjustments	95
L. Actuarial Certification	98

Section 1 Highlights

This report presents the results of the June 30, 2004 actuarial valuation of the Fresno County Employees' Retirement Association (FCERA). Results from the prior valuation are shown for comparison. All dollar amounts are in millions.

June 30, 2004

June 30, 2003

Recommended Employer Contribution Rates

General	14.14%	22.06%
Safety	25.02%	28.89%
Total Plan	15.90%	23.17%

These rates reflect both Regular and Settlement contribution rates, since there were no Undistributed Earnings as of June 30, 2003 or June 30, 2004 to pay for unfunded Settlement liabilities.

Funded Status

Actuarial Accrued Liability	\$2,018.0	\$1,953.5
Actuarial Value of Assets	\$1,977.1	\$1,534.0
UAAL	\$40.9	\$419.5
Funded Percentage	98.0%	78.5%

Key Assumptions

Interest Rate	8.16%	8.16%
Average Salary Increase	6.4% General 5.5% Safety	6.4% General 5.5% Safety
Inflation	4.0%	4.0%

Section

2

Board Summary

This actuarial valuation report has been prepared primarily to review FCERA's funded status as of June 30, 2004 and determine the contributions required of the Plan Members and Participating Employers for the fiscal year beginning July 1, 2005. This is done every year by taking a snapshot of the Plan on the basis of the plan provisions, plan membership, and investments as of the end of the plan year.



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A. Benefit Terminology

For the purposes of this analysis, we will be distinguishing between several types of benefits provided to FCERA members under the plan provisions adopted by the County (and other Participating Employers) and the agreement between the County, FCERA and Plan Members to settle lawsuits related to the Ventura Decision (Ventura Settlement). In order to limit the repetition of benefit descriptions and sources of payments, we will refer to these benefits by the following names:

- **Regular Benefits** - The benefits provided under the plan provisions in effect prior to the Ventura Settlement. These benefits are guaranteed by the County (and other Participating Employers) and include both Basic Benefits and COLA Benefits.
 - **Basic Benefits** – All formula benefits provided under the Regular portion of FCERA. These include service retirement benefits, survivor continuance, disability benefits, and refunds of member contributions. Basic Benefits do not include cost-of-living adjustments.
 - **COLA Benefits** – These are the cost-of-living adjustments provided under the Regular portion of FCERA. They include cost-of-living increases paid on service retirement benefits, disability benefits and survivor benefits.
- **Settlement Benefits** – These are the additional benefits provided to Plan Members under the Ventura Settlement. These benefits are also guaranteed by the County (and other Participating Employers), but have been separated from Regular Benefits because they have a different source of funding under the Settlement Agreement. Settlement Benefits are broken down into three categories:
 - **Supplemental Benefits (Section 6)** – These are the additional retirement benefits provided under Section 6 of the Ventura Settlement to Plan Members who were not yet retired as of January 1, 2001. These Supplemental Benefits, when combined with the Regular Benefits, provide retirement income of 2.5% of pay for each year of service at age 55 for General Members (age 50 for Safety Members).
 - **\$15 Retiree Benefits (Section 8)** – These are the additional retirement benefits provided under Section 8 of the Ventura Settlement to Plan Members who were retired as of January 1, 2001. In general, they are equal to \$15 for each year of service.
 - **Retiree Health Benefits (Section 9)** – These are benefits of \$3 per year of service provided under Section 9 of the Ventura Settlement to

all retired Plan Members to help pay for health benefits. These benefits are provided to Plan Members who retired before January 1, 2001 and those who retire after that date.

- **Non-Valuation Benefits** – These are the additional benefits provided to Plan Members from Undistributed Earnings. These benefits are not guaranteed by the County (or other Participating Employers) and may be stopped at any time. It is our understanding that the Board of Retirement intends to continue to provide these benefits as long as Undistributed Earnings are available. Non-Valuation Benefits include Purchasing Power Benefits and Retiree Health Benefits.
 - **Purchasing Power Benefits** – These benefits, sometimes referred to as a Supplemental COLA, are generally designed to help long-term retirees retain a portion of the purchasing power of their initial retirement benefit that is lost to inflation. This loss of purchasing power occurs when inflation is greater than the cost of living adjustment provided under the Regular and Settlement Benefits. The Retirement Board currently provides a purchasing power benefit to retirees and beneficiaries whose COLA Bank is greater than 25%.
 - **Retiree Health Benefits** – These are benefits provided to all retired Plan Members to help pay for health benefits. These benefits are in addition to those provided under the Ventura Settlement.

B. Major Events

The major events affecting the contribution rates and funded position of the Plan primarily fall into five categories:

- Investments,
- Demographics,
- Funding,
- Assumptions and Methodology, and
- Benefits.

Investments

Empirical evidence suggests that over 90% of the return achieved by a portfolio is due to the allocation of assets within that portfolio. As of June 30, 2004, the Retirement Plan's target asset allocation was:

Cash and Cash Equivalents	2%
Core Bonds	28%
Global Bonds	3%
Domestic Stocks	38%
International Stocks	18%
Private Markets	11%

For the past couple of years, the investment market has been difficult. According to Ibbotson Associates, the return on investment for the major asset classes for the 12-month periods ended June 30, 2003 and June 30, 2004 were:

	June 30, 2003	June 30, 2004
Large Company Stocks	0.25%	19.11%
Small Company Stocks	3.14%	40.12%
Long-term Corporate Bonds	19.93%	-2.75%
Long-term Government Bonds	20.16%	-4.32%
Intermediate-term Government Bonds	11.92%	-1.57%
Treasury Bills	1.38%	0.89%

This translated into investment gains for pension funds across the United States. This fund was no exception. On a market value basis, the Plan investments achieved a return of approximately 14.0% for fiscal year 2003-2004. In the 2003-2004 fiscal year, these returns were greater than the 8.16% return assumed. This resulted in an actuarial gain to the Retirement Plan on a market-value basis of approximately \$98.6 million for the year.

FCERA uses an asset smoothing method to determine contribution rates and the Plan's funded position. This method spreads market gains greater than the assumed rate (or less than the assumed rate) over a five year period. Using the asset smoothing method, FCERA assets achieved a return for the fiscal year of approximately 5.3% due to the spreading of previous losses into the current year. This resulted in an actuarial loss of approximately \$55.8 million.

Detailed information regarding plan investments is shown in the Asset Information subsection in the Technical Information section of the report.

Demographics

The number of active members decreased by 2.0% from 7,609 to 7,454, while the average pay increased by 0.8% from \$3,750 per month to \$3,780 per month. This resulted in a net decrease in total covered payroll of approximately 1.3%.

The number of retired members and beneficiaries receiving pension checks increased from 4,025 to 4,331, while the average monthly benefit check went from \$1,949 to \$2,092. This combination increased monthly payments from FCERA by approximately 15.5%.

Funding

The County of Fresno issued Pension Obligation Bonds (POBs) in March 2004. The County contributed \$398,140,728 of the bond's proceeds into FCERA.

Assumptions and Methodology

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

Benefits

No benefit changes were adopted in the past year.

C. Funded Position

The primary responsibility of Plan Trustees is to ensure that there is enough money to pay for Plan benefits. We check our progress in this area by comparing the assets that have been set aside to pay for plan benefits with plan liabilities.

In this report, we will look separately at the funded position of Regular Benefits, Settlement Benefits and Non-Valuation Benefits.

Funded Position – Regular Benefits

The primary target liability for FCERA is the Actuarial Accrued Liability for Regular Plan Benefits. The **Actuarial Accrued Liability (AAL)** is the portion of the Present Value of Benefits attributed to the past. In other words,

- If current plan benefits had always been in place, and
- If the current assumptions had always been in place, and
- If the plan had always been funded under the current funding method, and
- If plan experience had always matched the assumptions, then

The Actuarial Value of Assets would be equal to the Actuarial Accrued Liability. It is the value often used as a funding target.

Current Funded Position

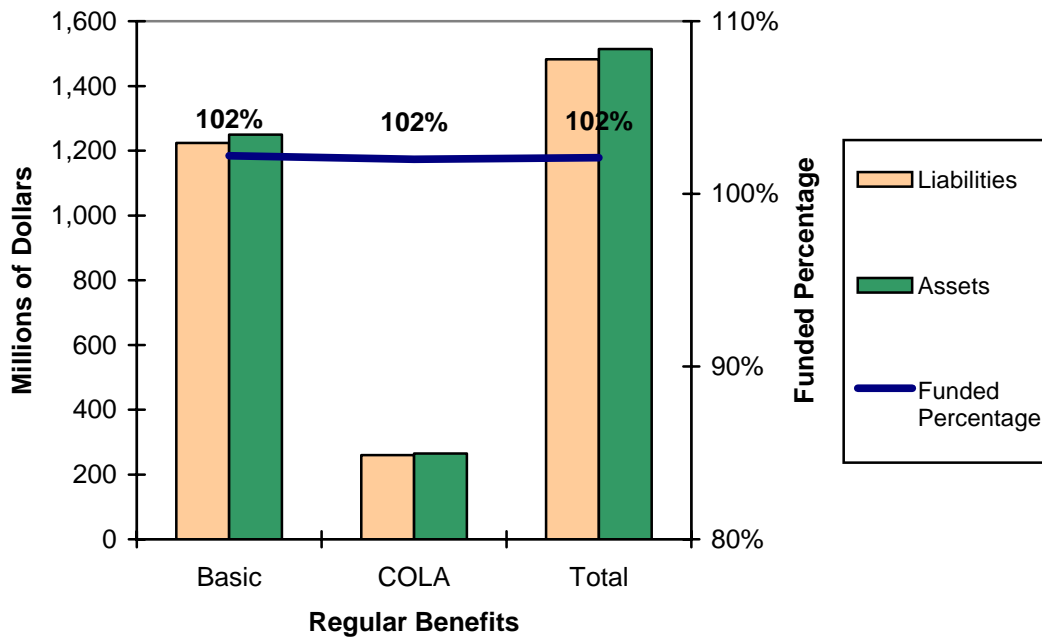
Regular Benefits are funded through a combination of employer and member contributions. Plan members are responsible for Basic contributions as specified in the County Employees Retirement Law and half the cost of the COL benefits. The employers are responsible for paying the cost for the rest of the benefits.

The following table compares the Employer's portion of Plan liabilities with the assets attributed to those benefits. The portion of the Plan guaranteed by Employer contributions currently has a funded percentage for Regular Benefits of 102.1%. It is calculated by dividing the Actuarial Value of Assets by the Actuarial Accrued Liability.

Dollar amounts in Millions	Basic Benefits	COL* Benefits	All Regular Benefits
Actuarial Accrued Liability	\$ 1,223.3	\$ 259.8	\$ 1,483.1
Actuarial Value of Assets	<u>\$ 1,249.6</u>	<u>\$ 264.9</u>	<u>\$ 1,514.5</u>
Unfunded Actuarial Accrued Liability	(\$ 26.3)	(\$ 5.1)	(\$ 31.4)
Funded Percentage	102.2%	101.9%	102.1%

* 50% of the AAL for COL Benefits is covered by Employer contributions and the other 50% is covered by Member COL Contributions.

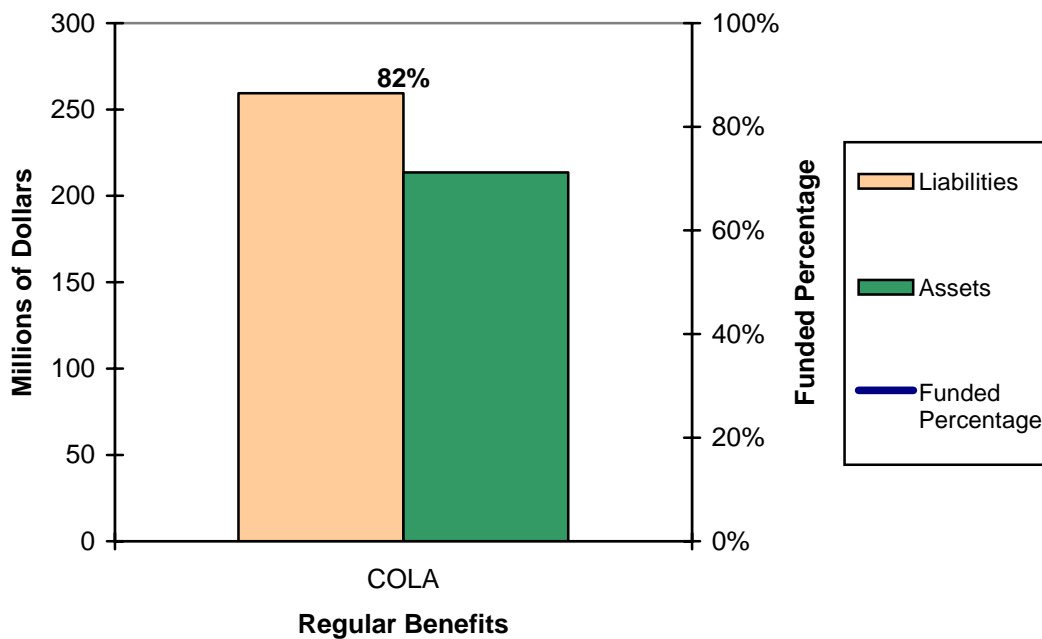
Current Funded Position



The table below compares the Members' portion of Plan liabilities with the assets attributed to those benefits. The portion of the Plan to be paid from Member COL contributions currently has a funded percentage for Regular Benefits of 82.1%. It is calculated by dividing the Actuarial Value of Assets by the Actuarial Accrued Liability.

	COL*
Dollar amounts in Millions	Benefits
Actuarial Accrued Liability	\$ 259.8
Actuarial Value of Assets	<u>\$ 213.5</u>
Unfunded Actuarial Accrued Liability	\$ 46.3
Funded Percentage	82.1%

* 50% of the AAL for COL Benefits is covered by Employer contributions and the other 50% is covered by Member COL Contributions.

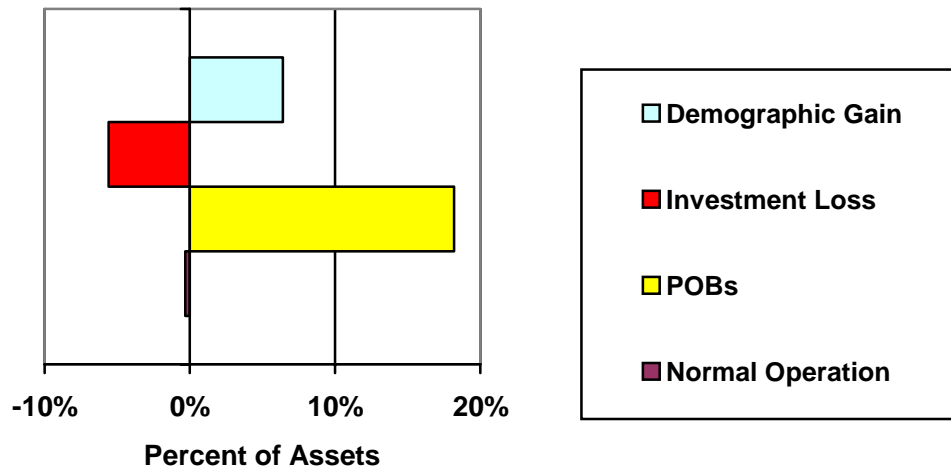


Change in Funded Position

The funded percentage for Regular Benefits increased to 102.1% as of June 30, 2004 from 83.3% as of June 30, 2003, primarily due to the following events:

- Normal Operation of the plan increased was expected to decrease the funded percentage by 0.3%.
- Issuance of Pension Obligation Bonds increased the funded percentage by 18.2%.
- Asset losses decreased the funded percentage by 5.6%.
- Demographic gains increased the funded percentage by 6.4%.

Impact of Major Events on Funded Percentage



Funded Position – Settlement Benefits

When the Ventura Settlement was put into place, it was hoped that the entire cost of the additional benefits provided under that agreement would be paid from Undistributed Earnings. Undistributed Earnings are the amount that remains after earnings have been used to credit interest to the Plan’s reserves. They are generally thought of as earnings in excess of those assumed to be earned under the actuarial valuation.

By their very nature, Undistributed Earnings are produced on an inconsistent basis and cannot be counted on to appear in any single time period. As is the case in the current year, when the reserves set aside to pay for Settlement Benefits are not sufficient to cover all liabilities and there are no assets available in Undistributed Earnings, Plan Members, the County and other Participating Employers will be required to make contributions. In this situation, we measure the funded position of Settlement Benefits using the Actuarial Accrued Liability as a target, just like we did for Regular Benefits.

As the following table shows, Settlement Benefits were 86.5% funded on this short-term basis. This was calculated by dividing the Actuarial Value of Assets by the Actuarial Accrued Liability.

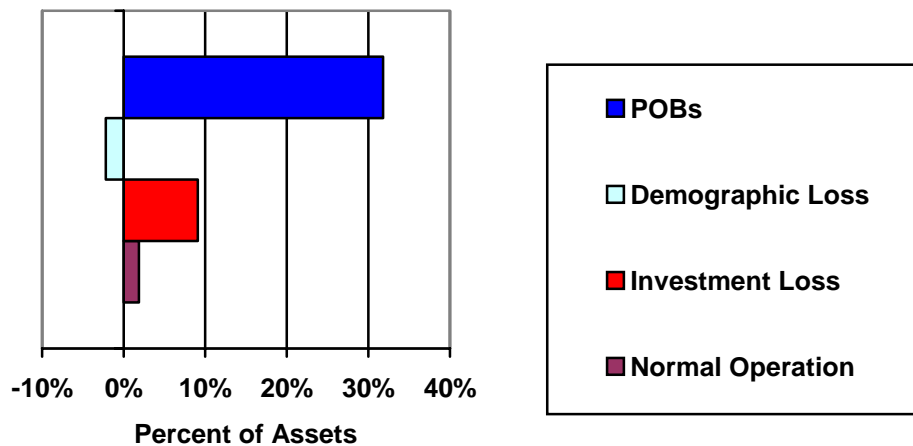
Dollar amounts in Millions	Supplemental (Section 6)	\$15 Retiree (Section 8)	Health (Section 9)	All Settlement Benefits
Actuarial Accrued Liability	\$ 366.6	\$ 121.8	\$ 46.4	\$ 534.8
Actuarial Value of Assets	<u>\$ 323.0</u>	<u>\$ 106.3</u>	<u>\$ 33.3</u>	<u>\$ 462.6</u>
Unfunded Actuarial Accrued Liability	\$ 43.6	\$ 15.5	\$ 13.1	\$ 72.2
Funded Percentage	88.1%	87.3%	71.8%	86.5%

Changes from the Prior Valuation

Overall, there was an increase in the funded position from 64.1% as of June 30, 2003 to 86.5% as of June 30, 2004. This was due to the following factors.

- Normal Operation of the Plan increased the funded percentage by 1.9%
- Issuance of Pension Obligation Bonds increased the by funded percentage by 31.8%.
- Investment losses during the year decreased the funded percentage by 9.1%.
- Liability losses decreased the funded percentage an additional 2.2%.

Impact of Major Events on Funded Percentage



Funded Position – Non-Valuation Benefits

Under the County Employees Retirement Law of 1937 (37 Act), the Retirement Board is allowed to use Undistributed Earnings to provide some benefits in addition to those guaranteed by the County. These benefits are provided on an ad-hoc basis. They do not vest with the Plan Members and the Retirement Board can pay them only as long as funding is available.

Since these benefits are paid from Undistributed Earnings, any benefits that the Retirement Board intends to continue into the future need to be funded up to the Present Value of Benefits. For that reason, we use the Present Value of Benefits as the long-term funding target for these benefits. The funded position of these benefits is shown in the table below.

	Purchasing Power Benefits	Retiree Health Benefits	Total Non-Valuation Benefits
Dollar amounts in Millions			
Present Value of Benefits	\$30.1	\$88.3	\$118.4
Actuarial Value of Assets	<u>\$2.1</u>	<u>\$72.7</u>	<u>\$74.8</u>
Unfunded Projected Liability	\$27.9	\$15.6	\$43.5
Funded Percentage	7.1%	82.3%	63.2%

Background information on the development of these funded percentages is included in the Technical Information section later in this report.

D. Employer Contribution Rates

Each year, recommended contribution rates are determined separately for members and employers. Employer contributions are determined as the sum of two elements: the Normal Cost and an Amortization of the Unfunded Actuarial Accrued Liability (UAAL).

The **Normal Cost (NC)** is the portion of the Present Value of Benefits attributed to the current year. In other words,

- If current plan benefits had always been in place, and
- If the current assumptions had always been in place, and
- If plan experience had always matched the assumptions, then

A contribution equal to the Normal Cost would be sufficient to keep the plan right on target, at 100% funding.

In the normal course of operating a retirement plan, there are a number of reasons why the plan may be someplace other than at 100% funding.

- **Plan Amendments** – These are changes in the benefits that are to be paid to plan members, such as the improvement to the 2.5%-at-50 plan for Safety members.
- **Assumption Changes** – Periodically, the plan actuaries and trustees adjust their expectation for the future. This occurred last year with the triennial experience analysis.
- **Methodology Changes** – Every few years, the actuary recommends a refinement in its actuarial methodology. This might be a change in the method used to allocate plan liabilities or in the smoothing method used to determine the actuarial value of assets.
- **Gain or Loss** – Each year actual plan experience is different than the experience expected under the plan assumptions. When actual experience reduces the Unfunded Actuarial Accrued Liability, it is called a gain. When plan experience increases the Unfunded Actuarial Accrued Liability, it is called a loss.

The amount that the funding is off target is added to the NC (when behind target) or reduced from the NC (when ahead of target) over a series of years.

In the June 30, 2003 actuarial valuation, the entire UAAL was amortized as a level percentage of payroll over a thirty-year period. After that year, changes in UAAL due to Plan Amendments will continue to be amortized as a level percentage of payroll over a thirty-year period. All other changes will be amortized as a level percentage of payroll over a fifteen-year period.

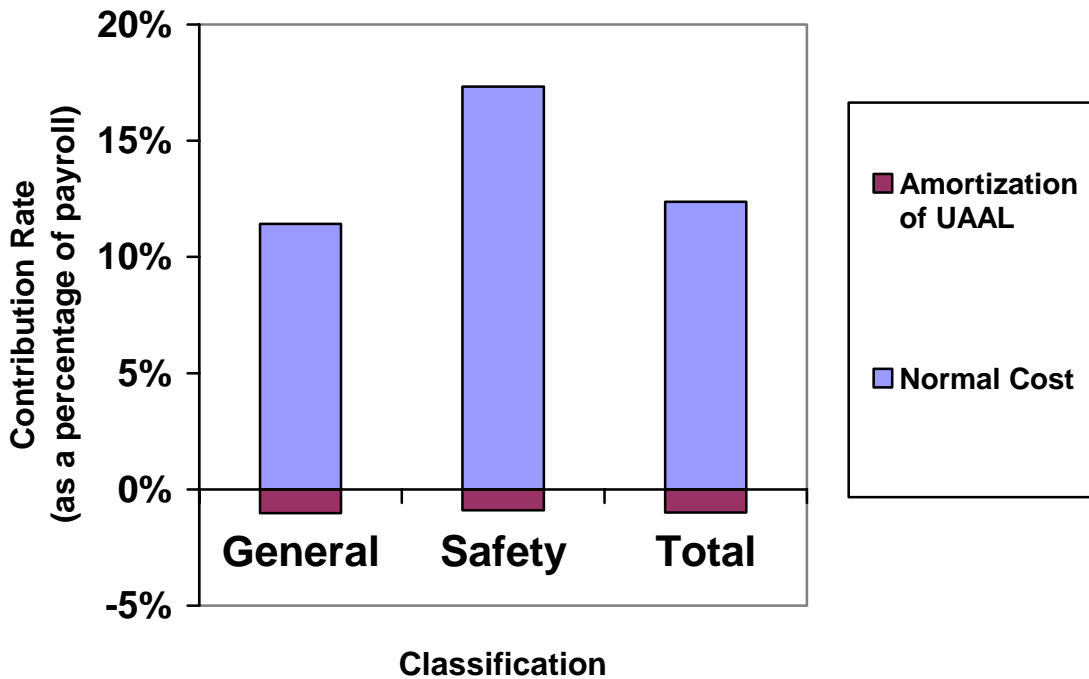
Contribution Rates – Regular Benefits

As we mentioned earlier, Regular Benefits are funded separately from Settlement Benefits. Regular Benefits are those benefits that were in effect prior to the Ventura Settlement. They are funded on a more traditional basis.

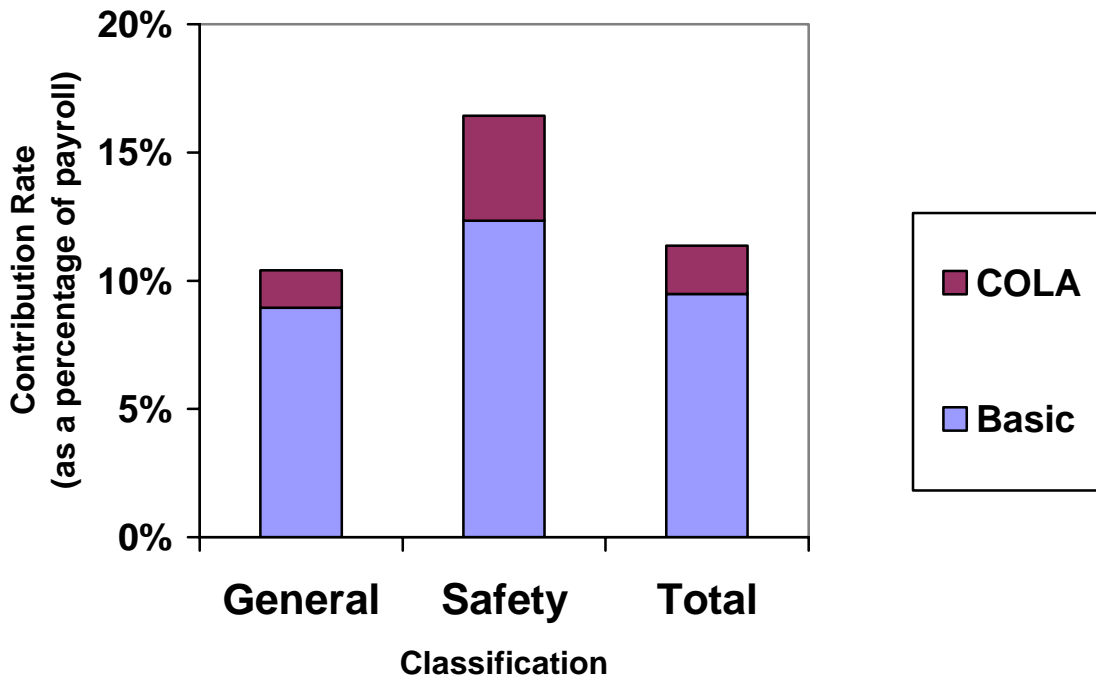
Current Contribution Rates

Regular Contributions for the coming year will be 11.37% of pay, or approximately \$39.9 million. These costs are split between General and Safety as follows:

Dollar amounts in Millions	General	Safety	Total
Normal Cost	11.42%	17.33%	12.37%
Amortization of UAAL	<u>(1.02%)</u>	<u>(0.90%)</u>	<u>(1.00%)</u>
Total Contribution Rate	10.40%	16.43%	11.37%
Dollar Amount of Contribution (in Millions)	\$ 30.6	\$ 9.3	\$ 39.9



These contribution rates include required contributions for both Basic Benefits and COLA Benefits, which are split as shown in the graph below.

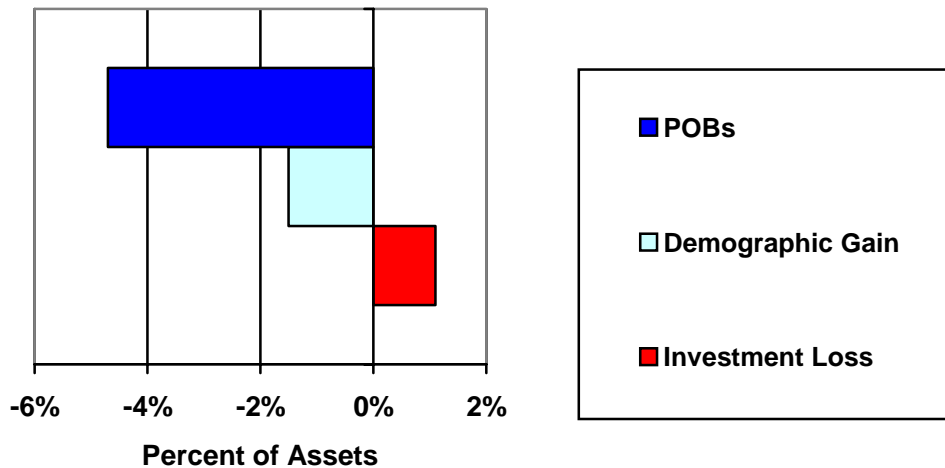


Changes from the Prior Valuation

Overall, there was a decrease in the contribution rate from 16.41% for the 2004-2005 Fiscal Year to 11.37% for the 2005-2006 Fiscal Year. This was due to the following events:

- Asset losses, including the actual contributions and benefit payments to FCERA, increased contribution rates by approximately 1.1% of pay.
- The County's issuance of Pension Obligation Bonds decreased the contribution rates by approximately 4.7% of pay.
- Liability gains decreased the contribution rates by approximately 1.5% of pay.

Impact of Major Events on Contribution Rate



Contribution Rates – Settlement Benefits

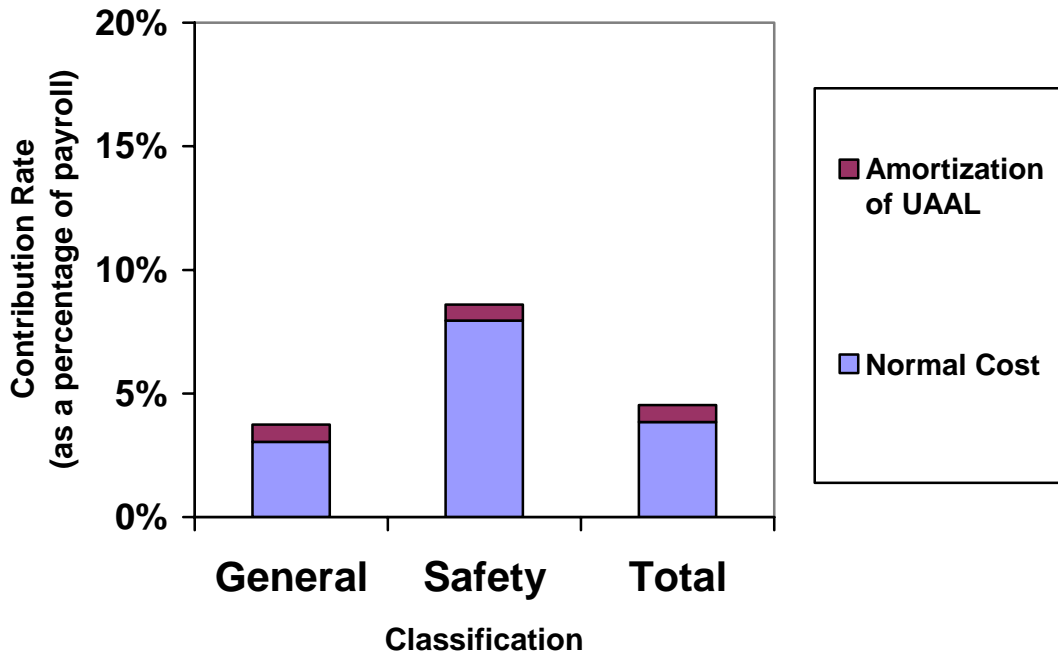
When the Ventura Settlement was put into place, it was hoped that the entire cost of the additional benefits provided under that agreement would be paid from Undistributed Earnings. This would include payment of any contributions required on an ongoing basis.

These contributions are a combination of a Normal Cost component and an amortization of any Unfunded Actuarial Accrued Liability for Settlement Benefits.

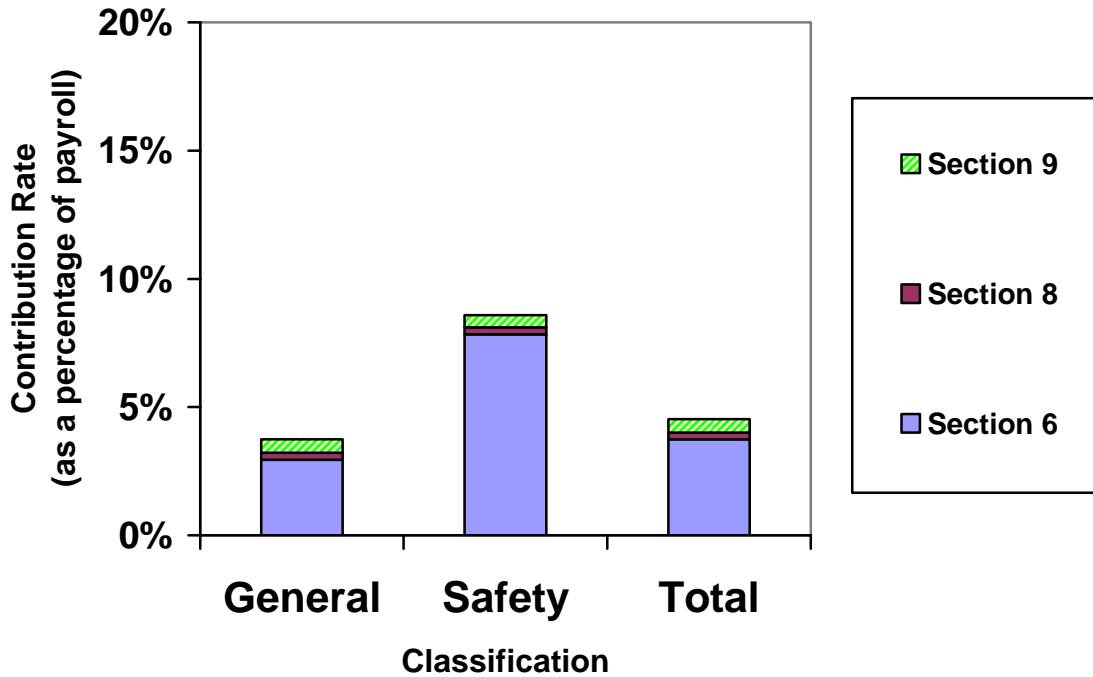
Current Contribution Rates

Settlement Contributions for the coming year are 4.53% of pay, or approximately \$15.9 million. These costs are split between General and Safety as follows:

Dollar amounts in Millions	General	Safety	Total
Normal Cost	3.04%	7.95%	3.84%
Amortization of UAAL	<u>0.70%</u>	<u>0.64%</u>	<u>0.69%</u>
Total Contribution Rate	3.74%	8.59%	4.53%
Contribution (in Millions)	\$ 11.0	\$ 4.9	\$ 15.9



These contribution rates include required contributions for benefits provided under Sections 6, 8 and 9 of the Settlement agreement, which are split as shown in the graph below.



Since there are no assets available from Undistributed Earnings as of June 30, 2004, these contributions will be required from the County for fiscal year 2005-2006. This is discussed in more detail later in this report.

E. Member Contribution Rates

Each year, recommended contribution rates are determined separately for members and employers. Member contributions are made up of three components: Basic Contributions, Cost of Living (COL) Contributions and Settlement Contributions.

- **Basic Contributions** are amounts, defined in the County Employees Retirement Law of 1937 (1937 Act), that are generally designed to pay for approximately one-quarter of the Regular Benefit that the member is projected to receive if he or she retires at the normal retirement age. Basic contribution rates are calculated as a percentage of the member's pay, on the basis of the member's age at entry into System, the classification of the member, the Plan's economic assumptions and the member's life expectancy at the retirement age specified for this purpose in the 1937 Act. Basic Contribution rates do not vary from year-to-year based on demographic or investment experience.
- **COL Contributions** are defined in Article 16.5 of the 1937 Act and are designed to pay for 50% of the Cost of Living (COLA) Benefit. They are determined on the basis of the value of COLA Benefits for current Plan Members and the amount of assets set aside in the Plan to pay for these benefits. These contributions are determined as a portion of the Basic Contributions and are affected by changes in assumptions as well as demographic and investment experience.
- **Settlement Contributions** are supplemental contributions required to help pay for the additional benefits agreed to under the Ventura Settlement Agreement. The language in the Ventura Settlement Agreement does not provide detailed guidance on how these contributions are to be calculated. For this valuation, we have looked at the proposed legislation designed by the parties to the Settlement to implement Section 7 of the Ventura Settlement (Assembly Bill 2063). Although the bill was vetoed by the Governor, it proposes an approach to calculating Member Contributions for this purpose in a manner similar to the method used for Basic Contributions. Like the Regular Member Contributions, the Settlement Contributions have both Basic and COL elements. In this valuation, the Basic Settlement Contributions for Members are those amounts which, when added to the Basic Contributions, would be sufficient to pay for a projected retirement benefit equal to 1/160th of the Member's projected final compensation for each year of service paid on a monthly basis beginning at age 55 for General Members or age 50 for Safety Members.

General Member Contributions

Current Year Contributions

Since the prior valuation, there have been changes to the COL Contribution Rates for General Members.



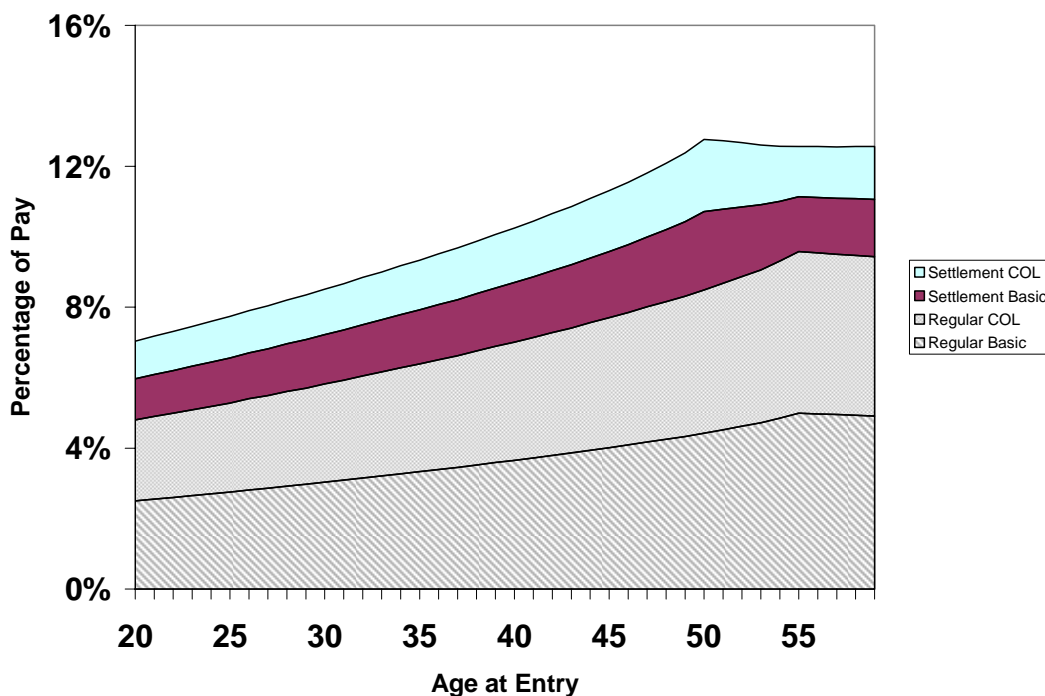
Actuaries you can understand

Basic Contributions. The Basic Contribution Rates for General Members were calculated in accordance with Section 31621.3 of the 1937 Act. The rates under this section are designed to be sufficient to pay for a projected benefit of 1/200th of the Member's projected final compensation for each year of service paid on a monthly basis beginning at age 60. The rates are the same as those calculated in the prior valuation. The Basic Contribution Rates for General Members are shown in Section F of the Technical Information portion of this report.

COL Contributions. The COL Contribution for General Members increased from 85% of Basic and Settlement Contribution Rates in the June 30, 2003 actuarial valuation to 92% of Basic and Settlement Contribution Rates in this valuation. The COL Contribution Rates for General Members are shown in Section F of the Technical Information portion of this report.

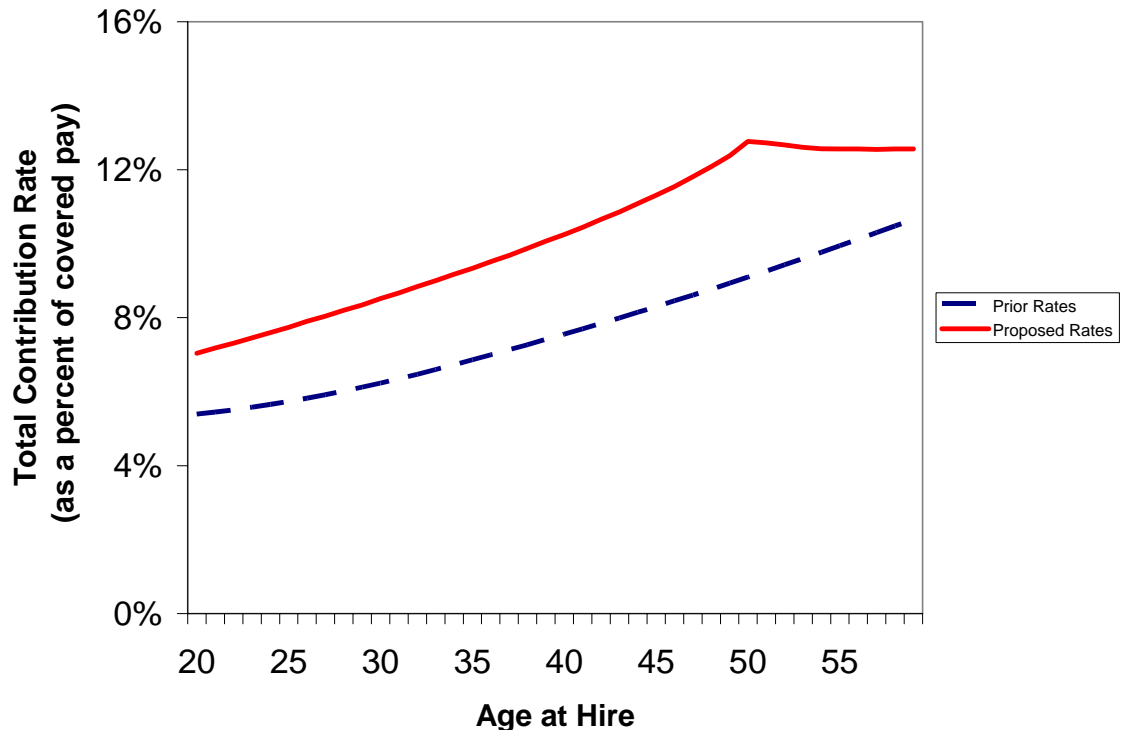
Settlement Contributions. Plan Members are asked to make additional contributions under Section 6 of the Ventura Settlement Agreement to help pay for the additional benefits provided under the Agreement when Undistributed Earnings are not available to pay for those benefits. Plan Members will be asked to make Settlement Contributions in the coming year because there are no Undistributed Earnings available to make those payments. The Settlement Contribution Rates for General Members are shown in Section F of the Technical Information portion of this report.

The contributions required from General Members for the coming year will be a combination of the Basic Contribution Rates, the Settlement Contribution Rates and the COL Contribution Rates. They will vary based on the Member's age at hire, and are shown in the graph below.



Comparison with Prior Contributions

The total contribution rates required of General Members will be approximately 35% higher than those required in the past year, as is shown in the following graph. This is due to last year's decision by the Retirement Board to limit the increase in member contributions in any year to 50%. The following graph compares this year's rates with the rates paid from the past valuation.



Safety Members

Current Year Contributions

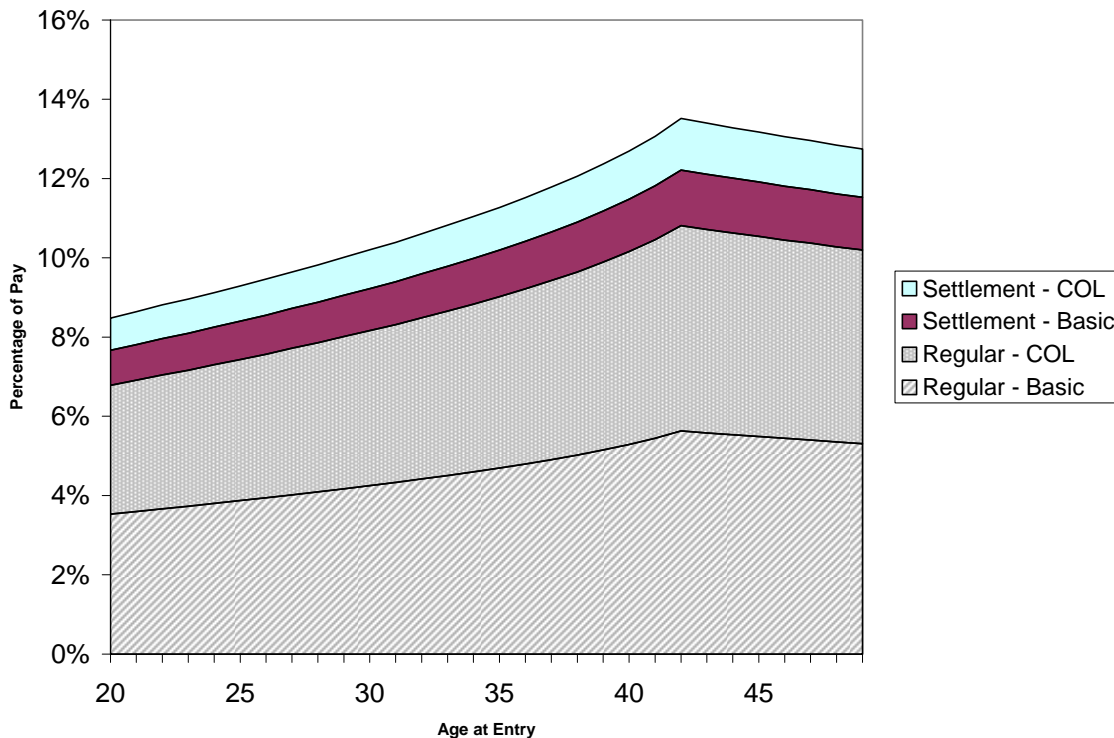
Since the prior valuation, there have been changes to the COL Contribution Rates for Safety Members.

Basic Contributions. The Basic Contribution Rates for Safety Members were calculated in accordance with Section 31639.5 of the 1937 Act. The rates under this section are designed to be sufficient to pay for a projected benefit of 1/200th of the Member's projected final compensation for each year of service paid on a monthly basis beginning at age 50. The rates have not changed since the prior valuation. The Basic Contribution Rates for Safety Members are shown in Section H of the Technical Information portion of this report.

COL Contributions. The COL Contribution for Safety Members increased from 85% of Basic and Settlement Contribution Rates in the June 30, 2003 actuarial valuation to 92% of Basic and Settlement Contribution Rates in this valuation. The COL Contribution Rates for Safety Members are shown in Section H of the Technical Information portion of this report.

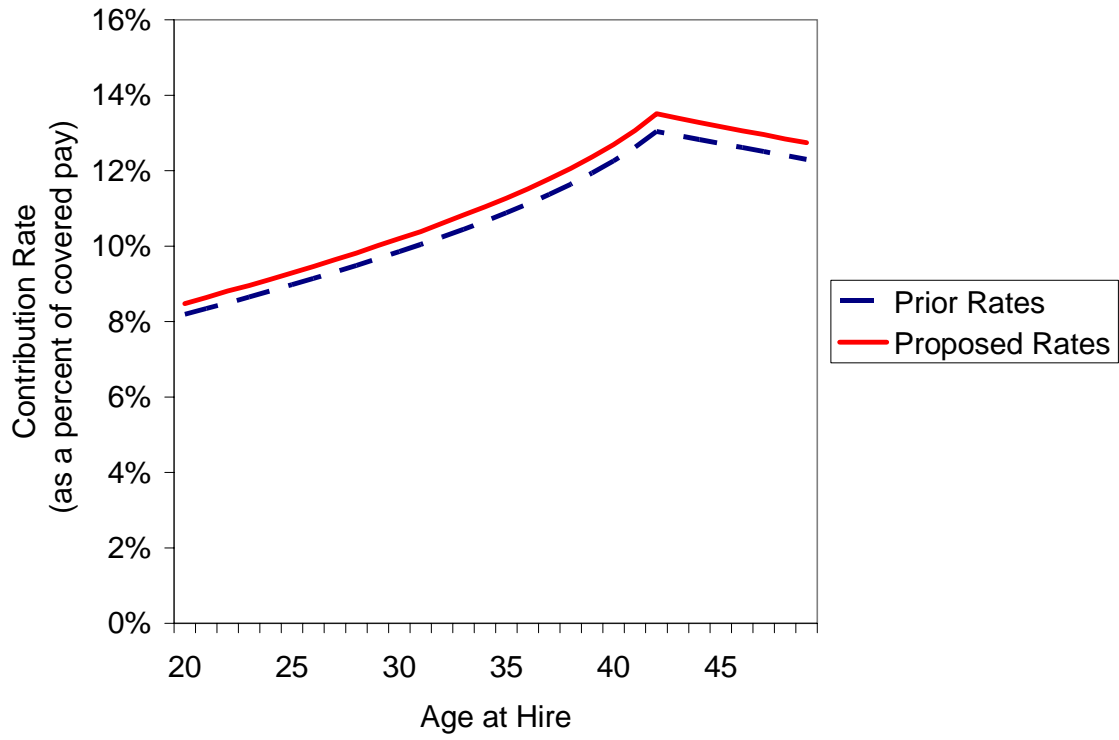
Settlement Contributions. Plan Members are asked to make additional contributions under Section 6 of the Ventura Settlement Agreement to help pay for the additional benefits provided under the Agreement when Undistributed Earnings are not available to pay for those benefits. Plan Members will be asked to make Settlement Contributions in the coming year because there are no Undistributed Earnings available to make those payments. The Settlement Contribution Rates for Safety Members are shown in Section H of the Technical Information portion of this report.

The contributions required from Safety Members for the coming year will be a combination of the Basic Contribution Rates, Settlement Contribution Rates and the COL Contribution Rates. They will vary based on the Member's age at hire, and are shown in the graph below.



Comparison with Prior Contributions

These contributions are approximately 4% greater than those that were required in the past year, as is shown in the following graph. This is due to the increase in required COL contributions.



Section
3 **Technical Information**

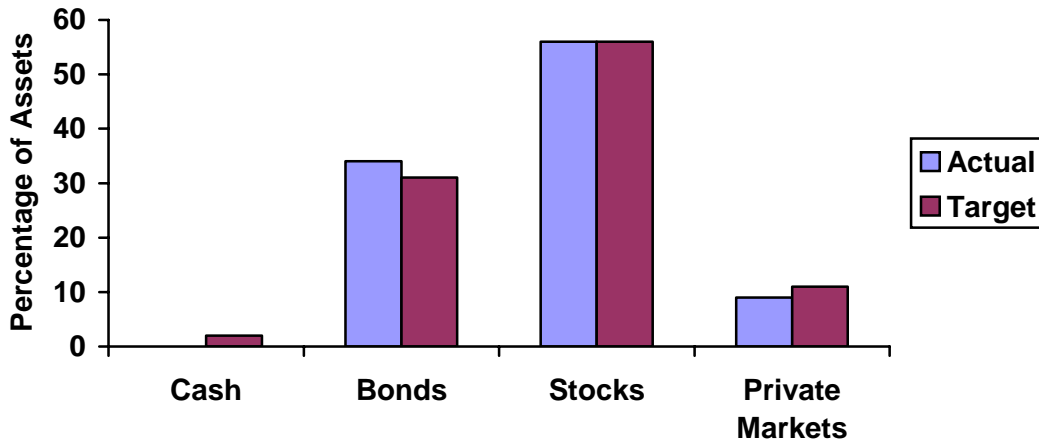
A. Asset Information

Net Plan Assets at Market Value as of June 30, 2004

	<i>Dollars (in 000's)</i>	<i>Actual %</i>	<i>Target %</i>
Cash and Cash Equivalents	5,315	0%	2%
Core Bonds	694,986	32%	28%
Global Bonds	49,982	2%	3%
Domestic Stocks	858,966	40%	38%
International Stocks	341,667	16%	18%
Private Markets	<u>189,796</u>	<u>9%</u>	<u>11%</u>
Net Assets	2,140,712	100%	100%

* Percentages may not add up to 100% due to rounding.

Asset Allocation



Development of Actuarial Value of Assets

Development of Unexpected Gains and Losses

Six Month Period Ended	Market Value Beginning of Period	Contributions	Benefit Payments	Market Value End of Period	Assumed Rate of Return	Expected Return	Actual Return	Unexpected Gain (Loss)
12/31/1999	1,695,026,910.30	4,751,913.62	27,429,654.88	1,840,543,304.68	8.25%	68,075,888.96	168,194,135.64	100,118,246.68
6/30/2000	1,840,543,304.68	4,445,807.80	27,068,179.80	1,782,030,412.97	8.25%	73,960,614.83	(35,890,519.71)	(109,851,134.54)
12/31/2000	1,782,030,412.97	5,035,289.30	27,771,010.85	1,779,761,263.16	8.42%	73,038,501.75	20,466,571.74	(52,571,930.01)
6/30/2001	1,779,761,263.16	4,937,695.67	37,255,638.32	1,690,810,873.08	8.42%	72,747,271.31	(56,632,447.43)	(129,379,718.74)
12/31/2001	1,690,810,873.08	8,507,566.17	39,853,836.30	1,619,512,835.08	8.42%	69,098,174.84	(39,951,767.87)	(109,049,942.71)
6/30/2002	1,619,512,835.08	13,706,567.93	42,800,063.60	1,565,541,761.01	8.42%	66,203,646.89	(24,877,578.40)	(91,081,225.29)
12/31/2002	1,565,541,761.01	22,759,411.04	44,501,232.89	1,443,914,316.36	8.16%	62,186,834.00	(99,885,622.80)	(162,072,456.80)
6/30/2003	1,443,914,316.36	30,798,277.44	49,290,498.40	1,550,639,977.14	8.16%	57,386,728.24	125,217,881.74	67,831,153.50
12/31/2003	1,550,639,977.14	29,321,451.66	52,517,237.59	1,730,505,556.06	8.16%	61,561,683.37	203,061,364.85	141,499,681.48
6/30/2004	1,730,505,556.06	431,868,046.94	55,476,120.31	2,140,711,926.45	8.16%	76,748,060.78	33,814,443.76	(42,933,617.02)



Actuaries you can understand

Development of Market Stabilization Reserve

Six-Month Period Ended	Unexpected Gain (Loss)	Percent Recognized	Gain (Loss) Excluded
6/30/2000	(109,851,135)	90%	(10,985,113)
12/31/2000	(52,571,930)	80%	(10,514,386)
6/30/2001	(129,379,719)	70%	(38,813,916)
12/31/2001	(109,049,943)	60%	(43,619,977)
6/30/2002	(91,081,225)	50%	(45,540,613)
12/31/2002	(162,072,457)	40%	(97,243,474)
6/30/2003	67,831,154	30%	47,481,807
12/31/2003	141,499,681	20%	113,199,745
6/30/2004	(42,933,617)	10%	(38,640,255)
<i>Total</i>			<i>(124,676,182)</i>

Development of Actuarial Value of Assets

1. Market Value of Assets as June 30	\$ 2,140,711,926
2. Market Stabilization Reserve	(124,676,182)
3. Preliminary Actuarial Value: (1) – (2)	2,265,388,108
4. Corridor Around Market Value	
(a) Minimum = 80% of Market	1,712,568,541
(b) Maximum = 120% of Market	2,568,854,312
5. Gross Actuarial Value of Assets	2,265,388,108

Allocation of Actuarial Value of Assets for Valuation Purposes

Actuarial Value of Reserves

Reserve	Fair Value	Actuarial Value
<i>Members' Accumulated Contributions</i>		
General - Basic	139,754,322	136,426,647
General - COL	37,871,482	36,969,729
Safety - Basic	27,654,869	26,996,382
Safety - COL	(1,645,871)	(1,606,681)
General - Settlement	9,149,715	8,931,852
Safety - Settlement	1,176,125	1,148,120
<i>Current Service Reserve</i>		
General - Regular	406,688,391	397,004,778
Safety - Regular	79,284,775	77,396,934
General - Settlement	91,766,073	89,581,041
Safety - Settlement	14,178,821	13,841,211
<i>Annuity Pension Reserve</i>		
General - Regular	76,940,434	75,108,414
Safety - Regular	17,236,189	16,825,780
General - Settlement	316,064	308,538
Safety - Settlement	50,342	49,143
<i>Current Service Pension Reserve</i>		
General	397,191,145	387,733,670
Safety	131,598,309	128,464,836
<i>Supplemental Annuity Reserve</i>		
General	170,387,830	166,330,744
Safety	43,853,361	42,809,173
<i>Survivors' Death Benefit Reserve</i>	3,714,078	3,625,642
<i>Cost of Living Adjustment Reserve</i>	453,780,131	442,975,223
<i>Supplemental Cost of Living Reserve</i>	2,183,310	2,131,324
<i>Supplemental Benefit Reserve</i>	108,924,733	106,331,139
<i>Contingency Reserve</i>	(55,256,615)	0
<i>Retiree Health Insurance Reserve (Section 9)</i>	34,109,671	33,297,490
<i>Retiree Health Insurance Reserve (Board of Retirement)</i>	74,480,424	72,706,979
<i>Market Stabilization Account</i>	(124,676,182)	0
<i>Undistributed Earnings</i>	<u>0</u>	<u>0</u>
Total	2,140,711,926	2,265,388,108

Actuarial Adjustment Factor

1. Included Reserves	
a) Total Reserves	2,140,711,926
b) Market Stabilization Account	(124,676,182)
c) Contingency Reserve (if less than zero)	(55,256,615)
d) Included Reserves = (a) - (b) - (c)	2,320,644,723
2. Actuarial Value of Assets	2,265,388,108
3. Adjustment Factor = (2) / (1d)	0.9761891106

Allocation of Reserves for Valuation

Regular Valuation Reserves

	General	Safety	Total
<u>Basic</u>			
Member Accumulated Contributions	136,426,647	26,996,382	163,423,029
Current Service Reserve	387,733,670	128,464,836	516,198,506
Annuity Pension Reserve	75,108,414	16,825,780	91,934,194
Current Service Pension Reserve	397,004,778	77,396,934	474,401,712
Survivor's Death Benefit Reserve*	3,976,082	(350,440)	3,625,642
Total Basic	1,000,249,591	249,333,492	1,249,583,083
<u>COLA</u>			
Member Accumulated Contributions	178,191,726	35,260,941	213,452,667
Cost of Living Reserve**	221,128,289	43,757,315	264,885,604
Total COL	399,320,015	79,018,256	478,338,271

* The Survivors' Death Benefit Reserve has been allocated between General and Safety on the same proportion as the other Basic Reserves.

** The Cost of Living Reserve was allocated between General and Safety in the same proportion as the Cost of Living contributions in the Member Accumulated Contribution Reserves. The Cost of Living was allocated between Members and Employer COL Reserve assuming that all amounts other than the Pension Obligation Bond allocation from 2004 was evenly split between the Members and Employer.

Settlement Reserves

	General	Safety	Total
<u>Supplemental Benefit (Section 6)</u>			
Supplemental Annuity Reserve	166,330,744	42,809,173	209,139,917
Member Accumulated Contributions	8,931,852	1,148,120	10,079,972
Annuity Pension Reserves	308,538	49,143	357,681
Current Service Reserves	89,581,041	13,841,211	103,422,252
Total	265,152,175	57,847,647	322,999,822

<u>\$15 Dollar Retiree (Section 8)</u>			
Supplemental Benefit Reserve			106,331,139
Total			106,331,139

<u>Retiree Health (Section 9)</u>			
Included Reserve			33,297,490

Non-Valuation Reserves

Undistributed Earnings			0
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<u>Other Non-Valuation Reserves</u>			
i) Supplemental COLA			2,131,324
ii) Contingency Reserve			0
iii) Retiree Health Reserve			<u>72,706,979</u>
iv) Total Other Non-Valuation Reserves			74,838,303

Summary of Reserves

Valuation Reserves			
Regular Reserves		1,727,921,354	
Settlement Reserves		<u>462,628,451</u>	
Total Valuation Reserves		2,190,549,805	

Non-Valuation Reserves			
Undistributed Earnings			0
Other Non-Valuation Reserves			<u>74,838,303</u>
Total Non-Valuation Reserves			74,838,303

B. Liability Information

Present Value of Projected Benefits

Present Value of Projected Benefits – Basic

	Regular Benefits	Regular and Settlement Benefits
1. Retirees and Beneficiaries		
A. General	444,467,007	612,446,523
B. Safety	<u>111,062,983</u>	<u>143,217,054</u>
C. Total	555,529,990	755,663,577
2. Deferred Vested Members		
A. General	62,601,093	83,749,202
B. Safety	<u>3,465,532</u>	<u>8,828,103</u>
C. Total	66,066,625	92,577,305
3. Active Members		
A. General	746,750,677	980,234,015
B. Safety	<u>212,405,744</u>	<u>253,893,650</u>
C. Total	959,156,421	1,234,127,665
4. All Members		
A. General	1,253,818,777	1,676,429,740
B. Safety	<u>326,934,259</u>	<u>405,938,807</u>
C. Total	1,580,753,036	2,082,368,547

Present Value of Projected Benefits – Basic and Cost of Living

	Regular Benefits	Regular and Settlement Benefits
1. Retirees and Beneficiaries		
A. General	692,738,475	920,771,175
B. Safety	<u>168,140,125</u>	<u>212,004,350</u>
C. Total	860,878,600	1,132,775,525
2. Deferred Vested Members		
A. General	81,295,097	107,116,707
B. Safety	<u>4,483,429</u>	<u>11,781,428</u>
C. Total	85,778,526	118,898,135
3. Active Members		
A. General	981,855,545	1,285,997,044
B. Safety	<u>287,741,858</u>	<u>341,014,554</u>
C. Total	1,269,597,403	1,627,011,598
4. All Members		
A. General	1,755,889,117	2,313,884,926
B. Safety	<u>460,365,412</u>	<u>564,800,332</u>
C. Total	2,216,254,529	2,878,685,258

Present Value of Projected Benefits – Supplemental Settlement Benefits (Section 6)

	Basic Benefits	Basic and Cost of Living Benefits
1. Retirees and Beneficiaries		
A. General	68,033,656	98,500,389
B. Safety	<u>17,391,312</u>	<u>24,803,244</u>
C. Total	85,424,968	123,303,633
2. Deferred Vested Members		
A. General	15,650,273	20,323,774
B. Safety	<u>5,020,572</u>	<u>6,956,000</u>
C. Total	20,670,845	27,279,774
3. Active Members		
A. General	215,736,866	286,395,026
B. Safety	38,418,083	50,202,873
C. Total	254,154,949	336,597,899
4. All Members		
A. General	299,420,795	405,219,189
B. Safety	60,829,967	81,962,117
C. Total	360,250,762	487,181,306

Present Value of Projected Benefits – \$15 Retiree Settlement Benefits (Section 8)

	Basic Benefits	Basic and Cost of Living Benefits
1. Retirees and Beneficiaries		
A. General	76,738,660	106,325,111
B. Safety	<u>11,180,302</u>	<u>15,478,524</u>
C. Total	87,918,962	121,803,635
2. Deferred Vested Members		
A. General	0	0
B. Safety	<u>0</u>	<u>0</u>
C. Total	0	0
3. Active Members		
A. General	0	0
B. Safety	<u>0</u>	<u>0</u>
C. Total	0	0
4. All Members		
A. General	76,738,660	106,325,111
B. Safety	<u>11,180,302</u>	<u>15,478,524</u>
C. Total	87,918,962	121,803,635

Present Value of Projected Benefits – Retiree Health Benefits from Settlement (Section 9)

Basic Benefits

1. Retirees and Beneficiaries

A. General	23,207,200
B. Safety	<u>3,582,457</u>
C. Total	26,789,657

2. Deferred Vested Members

A. General	5,497,836
B. Safety	<u>341,999</u>
C. Total	5,839,835

3. Active Members

A. General	17,746,472
B. Safety	<u>3,069,823</u>
C. Total	20,816,295

4. All Members

A. General	46,451,508
B. Safety	<u>6,994,279</u>
C. Total	53,445,787

Present Value of Projected Benefits – Non-Valuation Benefits

	Purchasing Power Benefits	Retiree Health Benefits
1. Retirees and Beneficiaries		
A. General	18,188,263	44,174,218
B. Safety	<u>5,088,099</u>	<u>6,472,352</u>
C. Total	23,276,362	50,646,570
2. Deferred Vested Members		
A. General	202,288	3,677,309
B. Safety	<u>73,119</u>	<u>199,167</u>
C. Total	275,407	3,876,476
3. Active Members		
A. General	4,377,927	28,798,495
B. Safety	<u>2,135,018</u>	<u>4,991,276</u>
C. Total	6,512,945	33,789,771
4. All Members		
A. General	22,768,478	76,650,022
B. Safety	<u>7,296,236</u>	<u>11,662,795</u>
C. Total	30,064,714	88,312,817

Actuarial Accrued Liability

Actuarial Accrued Liability – Basic

	Regular Benefits	Regular and Settlement Benefits
1. Retirees and Beneficiaries		
A. General	444,467,007	612,446,523
B. Safety	<u>111,062,983</u>	<u>143,217,054</u>
C. Total	555,529,990	755,663,577
2. Deferred Vested Members		
A. General	62,601,093	83,749,202
B. Safety	<u>3,465,532</u>	<u>8,828,103</u>
C. Total	66,066,625	92,577,305
3. Active Members		
A. General	477,705,764	628,786,408
B. Safety	<u>123,994,793</u>	<u>149,643,806</u>
C. Total	601,700,557	778,430,214
4. All Members		
A. General	984,773,864	1,324,982,133
B. Safety	<u>238,523,308</u>	<u>301,688,963</u>
C. Total	1,223,297,172	1,626,671,096

Actuarial Accrued Liability – Basic and Cost of Living

	Regular Benefits	Regular and Settlement Benefits
1. Retirees and Beneficiaries		
A. General	692,738,475	920,771,175
B. Safety	<u>168,140,125</u>	<u>212,004,350</u>
C. Total	860,878,600	1,132,775,525
2. Deferred Vested Members		
A. General	81,295,097	107,116,707
B. Safety	<u>4,483,429</u>	<u>11,781,428</u>
C. Total	85,778,526	118,898,135
3. Active Members		
A. General	629,438,451	825,988,769
B. Safety	<u>166,874,533</u>	<u>200,145,094</u>
C. Total	796,312,984	1,026,133,863
4. All Members		
A. General	1,403,472,023	1,853,876,651
B. Safety	<u>339,498,087</u>	<u>423,930,872</u>
C. Total	1,742,970,110	2,277,807,523

Actuarial Accrued Liability – Supplemental Settlement Benefits (Section 6)

	Basic Benefits	Basic and Cost of Living Benefits
1. Retirees and Beneficiaries		
A. General	68,033,656	98,500,389
B. Safety	<u>17,391,312</u>	<u>24,803,244</u>
C. Total	85,424,968	123,303,633
2. Deferred Vested Members		
A. General	15,650,273	20,323,774
B. Safety	<u>5,020,572</u>	<u>6,956,000</u>
C. Total	20,670,845	27,279,774
3. Active Members		
A. General	139,229,812	184,699,486
B. Safety	<u>23,726,015</u>	<u>31,347,563</u>
C. Total	162,955,827	216,047,049
4. All Members		
A. General	222,913,741	303,523,649
B. Safety	<u>46,137,899</u>	<u>63,106,807</u>
C. Total	269,051,640	366,630,456

Actuarial Accrued Liability – \$15 Retiree Settlement Benefits (Section 8)

	Basic Benefits	Basic and Cost of Living Benefits
1. Retirees and Beneficiaries		
A. General	76,738,660	106,325,111
B. Safety	<u>11,180,302</u>	<u>15,478,524</u>
C. Total	87,918,962	121,803,635
2. Deferred Vested Members		
A. General	0	0
B. Safety	<u>0</u>	<u>0</u>
C. Total	0	0
3. Active Members		
A. General	0	0
B. Safety	<u>0</u>	<u>0</u>
C. Total	0	0
4. All Members		
A. General	76,738,660	106,325,111
B. Safety	<u>11,180,302</u>	<u>15,478,524</u>
C. Total	87,918,962	121,803,635

Actuarial Accrued Liability – Retiree Health Benefits from Settlement (Section 9)

Basic Benefits

1. Retirees and Beneficiaries

A. General	23,207,200
B. Safety	<u>3,582,457</u>
C. Total	26,789,657

2. Deferred Vested Members

A. General	5,497,836
B. Safety	<u>341,999</u>
C. Total	5,839,835

3. Active Members

A. General	11,850,832
B. Safety	<u>1,922,998</u>
C. Total	13,773,830

4. All Members

A. General	40,555,868
B. Safety	<u>5,847,454</u>
C. Total	46,403,322

Normal Cost

Normal Cost – Basic

	Regular Benefits	Regular and Settlement Benefits
<i>Dollar Amounts</i>		
A. General	26,018,729	33,731,400
B. Safety	<u>7,466,915</u>	<u>8,680,028</u>
C. Total	33,485,644	42,411,428
<i>As a Percent of Payroll</i>		
A. General	9.19%	11.91%
B. Safety	13.71%	15.93%
C. Total	9.92%	12.56%

Normal Cost – With Cost of Living

	Regular Benefits	Regular and Settlement Benefits
<i>Dollar Amounts</i>		
A. General	29,061,047	37,351,374
B. Safety	<u>6,225,862</u>	<u>10,393,088</u>
C. Total	35,286,908	47,744,462
<i>As a Percent of Payroll</i>		
A. General	10.26%	13.19%
B. Safety	11.43%	19.08%
C. Total	10.45%	14.14%

Normal Cost – Settlement Benefits with Cost of Living

	Supplemental Benefit (Section 6)	\$15 Retiree (Section 8)	Retiree Health (Section 9)
<i>Dollar Amounts</i>			
A. General	7,483,111	0	807,216
B. Safety	<u>4,035,466</u>	<u>0</u>	<u>131,761</u>
C. Total	11,518,576	0	938,977
<i>As a Percent of Payroll</i>			
A. General	2.64%	0.00%	0.29%
B. Safety	7.41%	0.00%	0.24%
C. Total	3.41%	0.00%	0.28%

C. Funded Percentage

Regular Benefits – Employer Portion

	Basic Benefits	COL Benefits *	Total Benefits
1. Actuarial Accrued Liability			
A. General	984,773,864	209,349,080	1,194,122,944
B. Safety	<u>238,523,308</u>	<u>50,487,389</u>	<u>289,010,697</u>
C. Total	1,223,297,172	259,836,469	1,483,133,641
2. Actuarial Value of Assets			
A. General	1,000,249,591	221,128,289	1,221,377,880
B. Safety	<u>249,333,492</u>	<u>43,757,315</u>	<u>293,090,807</u>
C. Total	1,249,583,083	264,885,604	1,514,468,687
3. Unfunded Actuarial Accrued Liability			
A. General	(15,475,727)	(11,779,209)	(27,254,936)
B. Safety	<u>(10,810,184)</u>	<u>6,730,074</u>	<u>(4,080,110)</u>
C. Total	(26,285,911)	(5,049,135)	(31,335,046)
4. Funded Percentages			
A. General	101.57%	105.63%	102.28%
B. Safety	104.53%	86.67%	101.41%
C. Total	102.15%	101.94%	102.11%

* 50% of the AAL for COL Benefits is covered by Employer contributions and the other 50% is covered by Member COL Contributions. The asset allocation for the COL Benefits is shown in the asset section.

Regular Benefits – Active Member Portion

COL Benefits *

1. Actuarial Accrued Liability

A. General	209,349,080
B. Safety	50,487,389
C. Total	259,836,469

2. Actuarial Value of Assets

A. General	178,191,726
B. Safety	35,260,941
C. Total	213,452,667

3. Unfunded Actuarial Accrued Liability

A. General	31,157,354
B. Safety	15,226,448
C. Total	46,383,802

4. Funded Percentages

A. General	85.12%
B. Safety	69.84%
C. Total	82.15%

- * 50% of the AAL for COL Benefits is covered by Employer contributions and the other 50% is covered by Member COL Contributions. The asset allocation for the COL Benefits is shown in the asset section.

Settlement Benefits

	Settlement Benefits	Total All Benefits
1. Actuarial Accrued Liability		
A. General	450,404,628	1,644,527,572
B. Safety	<u>84,432,785</u>	<u>373,443,482</u>
C. Total	534,837,413	2,017,971,054
2. Actuarial Value of Assets	462,628,451	1,977,097,138
3. Unfunded Actuarial Accrued Liability	72,208,962	40,873,916
4. Funded Percentages	86.50%	97.97%

Amortization Schedule

Amortization of Unfunded Actuarial Accrued Liabilities – General

Basic Benefits

Date of Origin	Source	Years Left	Original Balance	Current Balance	Amortization Payment
6/30/2003	Original - Basic	29	11,729,120	11,980,788	678,296
6/30/2004	Basic (Gain) Loss	15	(27,456,515)	<u>(27,456,515)</u>	<u>(2,374,490)</u>
SUBTOTAL				(15,475,727)	(1,696,193)

COL Benefits

Date of Origin	Source	Years Left	Original Balance	Current Balance	Amortization Payment
6/30/2003	Original - COL	29	2,413,681	2,465,470	139,584
6/30/2004	COL (Gain) Loss	15	(14,244,679)	<u>(14,244,679)</u>	<u>(1,231,906)</u>
SUBTOTAL				(11,779,209)	(1,092,322)

Amortization of Unfunded Actuarial Accrued Liabilities – Safety

Basic Benefits

Date of Origin	Source	Years Left	Original Balance	Current Balance	Amortization Payment
6/30/2003	Original - Basic	29	2,289,313	2,338,434	132,391
6/30/2004	Basic (Gain) Loss	15	(13,148,618)	<u>(13,148,618)</u>	<u>(1,137,117)</u>
SUBTOTAL				(10,810,184)	(1,004,726)

COL Benefits

Date of Origin	Source	Years Left	Original Balance	Current Balance	Amortization Payment
6/30/2003	Original - COL	29	1,570,444	1,604,140	90,819
6/30/2004	COL (Gain) Loss	15	5,125,935	<u>5,125,935</u>	<u>443,300</u>
SUBTOTAL				6,730,074	534,119

D. Employer Contribution Rates

Regular Benefits

Basic

	General	Safety	Total
1. Normal Cost	26,018,729	7,466,915	33,485,644
2. UAAL Amortization Payment	(1,696,193)	(1,004,726)	(2,700,919)
3. Preliminary Contribution = (1) + (2)	24,322,536	6,462,189	30,784,725
4. Interest for Payments during year	972,901	258,488	1,231,389
5. Adjustment for payment during next fiscal year	1,011,817	268,827	1,280,644
6. Required Contribution = (3) + (4) + (5)			
a) Dollar Amount	26,307,254	6,989,504	33,296,758
b) Percentage of Payroll	8.94%	12.34%	9.48%

Allocation of Contribution Rate

	General	Safety	Total
Normal Cost	9.56%	14.26%	10.31%
UAAL Amortization Payment	<u>(0.62%)</u>	<u>(1.92%)</u>	<u>(0.83%)</u>
Total Basic Contribution Rate	8.94%	12.34%	9.48%

COL

	General	Safety	Total
1. Normal Cost			
a) Total Normal Cost	10,154,400	3,218,148	13,372,548
b) Portion paid by Employers	50%	50%	50%
c) Employer Normal Cost = (a) X (b)	5,077,200	1,609,074	6,686,274
2. UAAL Amortization Payment	(1,092,322)	534,119	(558,203)
3. Preliminary Contribution = (1) + (2)	3,984,878	2,143,193	6,128,071
4. Interest for Payments during year	159,395	85,728	245,123
5. Adjustment for payment during next fiscal year	165,771	89,157	254,928
6. Required Contribution = (3) + (4) + (5)			
a) Dollar Amount	4,310,044	2,318,078	6,628,122
b) Percentage of Payroll	1.46%	4.09%	1.89%

Allocation of Contribution Rate

	General	Safety	Total
Normal Cost	1.86%	3.07%	2.06%
UAAL Amortization Payment	<u>(0.40%)</u>	<u>1.02%</u>	<u>(0.17%)</u>
Total COL Contribution Rate	1.46%	4.09%	1.89%

Total Regular Benefits

	General	Safety	Total
1. Normal Cost	31,095,929	9,075,989	40,171,918
2. UAAL Amortization Payment	(2,788,516)	(470,606)	(3,259,122)
3. Preliminary Contribution = (1) + (2)	28,307,413	8,605,383	36,912,796
4. Interest for Payments during year	1,132,297	344,215	1,476,512
5. Adjustment for payment during next fiscal year	1,177,588	357,984	1,535,572
6. Required Contribution = (3) + (4) + (5)			
a) Dollar Amount	30,617,298	9,307,582	39,924,880
b) Percentage of Payroll	10.40%	16.43%	11.37%

Allocation of Contribution Rate

	General	Safety	Total
Normal Cost	11.42%	17.33%	12.37%
UAAL Amortization Payment	<u>(1.02%)</u>	<u>(0.90%)</u>	<u>(1.00%)</u>
Total Regular Contribution Rate	10.40%	16.43%	11.37%

Settlement Benefits

Supplemental Settlement Benefits (Section 6)

	General	Safety	Total
1. Normal Cost	7,483,111	4,035,466	11,518,576
2. UAAL Amortization Payment	541,360	72,517	613,877
3. Preliminary Contribution = (1) + (2c)	8,024,471	4,107,983	12,132,453
4. Interest for Payments during year	320,979	164,319	485,298
5. Adjustment for payment during next fiscal year	333,818	170,892	504,710
6. Required Contribution = (3) + (4) + (5)			
a) Dollar Amount	8,679,268	4,443,194	13,122,461
b) Percentage of Payroll	2.95%	7.84%	3.74%

Allocation of Contribution Rate

	General	Safety	Total
Normal Cost	2.75%	7.70%	3.55%
UAAL Amortization Payment	<u>0.20%</u>	<u>0.14%</u>	<u>0.19%</u>
Total Section 6 Contribution Rate	2.95%	7.84%	3.74%

\$15 Retiree Settlement Benefits (Section 8)

	General	Safety	Total
1. UAAL Amortization Payment			
a) UAAL			
i) Actuarial Accrued Liability			121,803,635
ii) Actuarial Value of Assets			106,331,139
iii) Unfunded Actuarial Accrued Liability			15,472,496
b) Amortization Factor			17.66306
c) Amortization Payment			875,980
d) Covered Payroll	283,135,520	54,478,246	337,613,766
e) UAAL Amortization Percentage	0.26%	0.26%	0.26%
f) Amortization Payment	736,152	141,643	877,796
2. Preliminary Contribution	736,152	141,643	877,796
3. Interest for Payments during year	29,446	5,666	35,112
4. Adjustment for payment during next fiscal year	30,624	5,892	36,516
5. Required Contribution			
= (2) + (3) + (4)			
a) Dollar Amount	796,222	153,201	949,424
b) Percentage of Payroll	0.27%	0.27%	0.27%

Allocation of Contribution Rate

	General	Safety	Total
Normal Cost	0.00%	0.00%	0.00%
UAAL Amortization Payment	<u>0.27%</u>	<u>0.27%</u>	<u>0.27%</u>
Total Section 8 Contribution Rate	0.27%	0.27%	0.27%

Retiree Health Benefits from Settlement (Section 9)

	General	Safety	Total
1. Normal Cost	807,216	131,761	938,977
2. UAAL Amortization Payment			
a) UAAL			
i) Actuarial Accrued Liability			46,403,322
ii) Actuarial Value of Assets			33,297,490
iii) Unfunded Actuarial Accrued Liability			13,105,832
b) Amortization Factor			17.66306
c) Amortization Payment = (a) / (b)			741,991
d) Covered Payroll	283,135,520	54,478,246	337,613,766
e) UAAL Amortization Percentage = (c) / (d)	0.22%	0.22%	0.22%
f) Amortization Payment = (d) X (e)	629,814	122,545	752,359
3. Preliminary Contribution = (1) + (2f)	1,430,114	251,613	1,681,727
4. Interest for Payments during year	57,205	10,065	67,270
5. Adjustment for payment during next fiscal year	59,493	10,467	69,960
6. Required Contribution = (3) + (4) + (5)			
a) Dollar Amount	1,546,812	272,145	1,818,957
b) Percentage of Payroll	0.52%	0.48%	0.52%

Allocation of Contribution Rate

	General	Safety	Total
Normal Cost	0.29%	0.25%	0.29%
UAAL Amortization Payment	<u>0.23%</u>	<u>0.23%</u>	<u>0.23%</u>
Total Section 9 Contribution Rate	0.52%	0.48%	0.52%

Total Settlement Benefits

	General	Safety	Total
1. Normal Cost	8,290,327	4,167,227	12,457,553
2. UAAL Amortization Payment	1,900,410	334,012	2,234,423
3. Preliminary Contribution = (1) + (2)	10,190,737	4,501,239	14,691,976
4. Interest for Payments during year	407,629	180,050	587,679
5. Adjustment for payment during next fiscal year	423,935	187,252	611,187
6. Required Employer Contribution			
a) Dollar Amount	11,022,301	4,868,541	15,890,842
b) Percentage of Payroll	3.74%	8.59%	4.53%

Allocation of Contribution Rate

	General	Safety	Total
Normal Cost	3.04%	7.95%	3.84%
UAAL Amortization Payment	<u>0.70%</u>	<u>0.64%</u>	<u>0.69%</u>
Total Section 9 Contribution Rate	3.74%	8.59%	4.53%

E. Summary of Major Plan Provisions – General Members

Membership:	Employment (at least 50% of full-time) with County or participating District. Enter on first day of the first pay period after entrance into service.
Final Average Salary (FAS):	Highest one-year average

Service Retirement

Eligibility:	10 years of service and age 50, or 30 years of service regardless of age, or age 70 regardless of service.								
Benefit:	2.5% of FAS per year of service times RAF								
Retirement Age Factor (RAF):	Adjustment factor for benefit commencing at age other than 55. Sample factors:								
	<table> <thead> <tr> <th>Age</th> <th>Factor</th> </tr> </thead> <tbody> <tr> <td>50</td> <td>0.7454</td> </tr> <tr> <td>55</td> <td>1.0000</td> </tr> <tr> <td>60</td> <td>1.3093</td> </tr> </tbody> </table>	Age	Factor	50	0.7454	55	1.0000	60	1.3093
Age	Factor								
50	0.7454								
55	1.0000								
60	1.3093								
Integration with Social Security:	Benefits based on first \$350 of monthly FAS are reduced by 1/3. Benefits for some District members are not integrated with Social Security.								
Maximum Benefit:	100% of FAS								
Normal Form of Benefit:	Life annuity; 60% continuance to spouse after death of member. If there is no surviving spouse, the benefit is paid to eligible children.								

Nonservice Connected Disability

Eligibility:	5 years of service.
Disabled Definition:	Unable to perform their own job.
Benefit:	90% of accrued benefit, or 2.25% of FAS multiplied by service projected to age 60, but not more than 33.333% of FAS. Cannot be less than Service Retirement benefit (if eligible at time of commencement).
Normal Form of Benefit:	Life annuity; 60% continuance to spouse after death of member. If there is no surviving spouse, the benefit is paid to eligible children.

Service Connected Disability

Eligibility:	First day of work
Disabled Definition:	Disability is substantially caused by employment and unable to perform his or her own job.
Benefit:	50% of salary, but not less than Service Retirement benefit (if eligible at time of commencement).
Normal Form of Benefit:	Life annuity; 100% continuance to spouse after death of member. If there is no surviving spouse, the benefit is paid to eligible children.

Nonservice Connected Death

Before eligible for Nonservice Connected Disability or Service Retirement:	Refund of employee contributions with interest, plus 1 month's salary for each year of service (maximum 6 months' salary).
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**After eligible for Nonservice
Connected Disability or Service
Retirement:**

60% of Nonservice Connected Disability Benefit or Service Retirement Benefit the member would have received for retirement on day of death payable to surviving eligible spouse for the life of the spouse. If there is no surviving spouse, the benefit is paid to eligible children.

Service Connected Death**Eligibility:**

First day of work

Benefit:

50% of salary, but not less than Service Retirement benefit (if eligible at time of commencement).

Normal Form of Benefit:

Life annuity to spouse after death of member. If there is no surviving spouse, the benefit is paid to eligible children.

Deferred Service Retirement**Eligibility:**

5 years of service

Additional requirement:

Must leave contributions on deposit

Benefit:

Same as service retirement benefit

FAS:

If reciprocity provisions apply, includes compensation earned at reciprocal agency.

Normal Form of Benefit:

Same as service retirement benefit

Withdrawal**Eligibility:**

First day of work

Other Requirement:

Forfeits right to receive other benefit from retirement system.

Benefit:	Accumulated contributions with interest
Form of Benefit:	Lump sum

Cost of Living Benefits

Timing:	Annually, effective April 1 for all those who retired on or before April 1. Based on change in Consumer Price Index (CPI) for the San Francisco Bay Area for the preceding calendar year.
Maximum:	3% per year, with "banking" of COLAs. When the COLA bank for a retiree or beneficiary exceeds 25%, it is the intention of the Retirement Board to provide additional benefits that would maintain a retiree's benefit at 75% of their original purchasing power. These purchasing power benefits are not guaranteed by the County (or other participating employers) and are considered non-Valuation benefits. These benefits have historically been paid out of Undistributed Earnings.

Health Benefits

Eligibility:	Receipt of a lifetime annuity upon service retirement, disability retirement, deferred vested retirement, or service-connected death.
Benefit:	For members entering the plan prior to 1/1/1990, the monthly benefit is \$45 plus \$6.50 per year of service. For members entering the plan on or after 1/1/90, the benefit is \$8 per year of service. Benefits are capped at \$240 per month. Under the terms of the Ventura

Settlement, a benefit of \$3 per year of service is guaranteed by the County (and other participating employers). Any remaining benefit is not guaranteed, although it is the intention of the Board to use Undistributed Earnings to pay for these non-Valuation benefits.

Normal Form of Benefit:

Life annuity to spouse after death of member.

Member Contributions

Basic:

Contribution is set by a table adopted by the Retirement Board designed to be sufficient to provide an average annuity, at age 60, equal to 1/200 of the final compensation of members.

Settlement:

Additional contribution is set by a table adopted by the Retirement Board designed to be sufficient (along with Basic Contributions for Regular Benefits) to provide an average annuity, at age 55, equal to 1/160 of the final compensation of members. This additional amount is paid from Undistributed Earnings when Undistributed Earnings are available.

COLA:

Members pay for 50% of the cost of the COLA. For the current year, that would increase Basic Contribution rates by 92%.

Percentage of Basic Contribution Payable by Member:

Employees with more than 30 years of service who were hired prior to March 7, 1973, do not pay employee contributions.

Integration with Social Security:

Members integrated with Social Security pay 2/3 of the full rate on first \$350 of pay each month.

Other Provisions:

Rates based on age at entry into System.



F. Member Contribution Rates – General Members

Member contribution rates are calculated as a percentage of the member's pay, on the basis of the member's age at entry into System, the classification of the member, the Plan's economic assumptions and the member's life expectancy at the retirement age specified for this purpose in the County Employees Retirement Law of 1937 (1937 Act).

General Member *Basic* Contribution Rates

Members will be required to make contributions based on the following schedule.

Age	Rate on First \$350 of Monthly Compensation	Rate on Compensation in Excess of \$350 per Month	Age	Rate on First \$350 of Monthly Compensation	Rate on Compensation in Excess of \$350 per Month
20	1.67%	2.50%	40	2.43%	3.65%
21	1.70%	2.55%	41	2.48%	3.72%
22	1.73%	2.60%	42	2.53%	3.79%
23	1.77%	2.65%	43	2.57%	3.86%
24	1.80%	2.70%	44	2.63%	3.94%
25	1.83%	2.75%	45	2.67%	4.01%
26	1.87%	2.81%	46	2.73%	4.09%
27	1.91%	2.86%	47	2.78%	4.17%
28	1.95%	2.92%	48	2.83%	4.25%
29	1.98%	2.97%	49	2.89%	4.33%
30	2.02%	3.03%	50	2.95%	4.42%
31	2.06%	3.09%	51	3.01%	4.52%
32	2.10%	3.15%	52	3.08%	4.62%
33	2.14%	3.21%	53	3.15%	4.72%
34	2.18%	3.27%	54	3.23%	4.85%
35	2.22%	3.33%	55	3.33%	4.99%
36	2.26%	3.39%	56	3.31%	4.97%
37	2.30%	3.45%	57	3.30%	4.95%
38	2.35%	3.52%	58	3.29%	4.93%
39	2.39%	3.59%	59	3.27%	4.91%

The above rates are based on 8.16% interest and RP-2000 Healthy Annuitant Mortality (weighted 1/3 male and 2/3 female), with adjustment for white collar workers.



General Member *Settlement* Basic Contribution Rates

Members will be required to make contributions based on the following schedule.

Age	Rate on First \$350 of Monthly Compensation	Rate on Compensation in Excess of \$350 per Month	Age	Rate on First \$350 of Monthly Compensation	Rate on Compensation in Excess of \$350 per Month
20	0.78%	1.17%	40	1.12%	1.69%
21	0.79%	1.19%	41	1.15%	1.72%
22	0.81%	1.21%	42	1.17%	1.76%
23	0.82%	1.23%	43	1.20%	1.79%
24	0.84%	1.26%	44	1.22%	1.83%
25	0.85%	1.28%	45	1.25%	1.88%
26	0.87%	1.30%	46	1.28%	1.92%
27	0.88%	1.33%	47	1.32%	1.98%
28	0.90%	1.35%	48	1.36%	2.04%
29	0.92%	1.38%	49	1.41%	2.12%
30	0.93%	1.40%	50	1.48%	2.22%
31	0.95%	1.43%	51	1.40%	2.10%
32	0.97%	1.45%	52	1.32%	1.98%
33	0.99%	1.48%	53	1.23%	1.84%
34	1.01%	1.51%	54	1.13%	1.70%
35	1.02%	1.54%	55	1.04%	1.55%
36	1.04%	1.56%	56	1.05%	1.57%
37	1.06%	1.59%	57	1.06%	1.59%
38	1.08%	1.62%	58	1.07%	1.61%
39	1.10%	1.65%	59	1.09%	1.63%

The above rates are based on 8.16% interest and RP-2000 Healthy Annuitant Mortality (weighted 1/3 male and 2/3 female), with adjustment for white collar workers.

General Member COL Contribution Rates

In many prior years, the additional contributions required to pay for cost of living benefits, for both members and employers, were often provided through Undistributed Earnings. Since there are no Undistributed Earnings available at this time to pay for the cost of living benefits, members will be required to make contributions based on the following schedule.

Age	Rate on First \$350 of Monthly Compensation	Rate on Compensation in Excess of \$350 per Month	Age	Rate on First \$350 of Monthly Compensation	Rate on Compensation in Excess of \$350 per Month
20	1.53%	2.30%	40	2.24%	3.36%
21	1.57%	2.35%	41	2.28%	3.42%
22	1.59%	2.39%	42	2.33%	3.49%
23	1.63%	2.44%	43	2.37%	3.55%
24	1.65%	2.48%	44	2.41%	3.62%
25	1.69%	2.53%	45	2.46%	3.69%
26	1.73%	2.59%	46	2.51%	3.76%
27	1.75%	2.63%	47	2.56%	3.84%
28	1.79%	2.69%	48	2.61%	3.91%
29	1.82%	2.73%	49	2.65%	3.98%
30	1.86%	2.79%	50	2.71%	4.07%
31	1.89%	2.84%	51	2.77%	4.16%
32	1.93%	2.90%	52	2.83%	4.25%
33	1.97%	2.95%	53	2.89%	4.34%
34	2.01%	3.01%	54	2.97%	4.46%
35	2.04%	3.06%	55	3.06%	4.59%
36	2.08%	3.12%	56	3.05%	4.57%
37	2.11%	3.17%	57	3.03%	4.55%
38	2.16%	3.24%	58	3.03%	4.54%
39	2.20%	3.30%	59	3.01%	4.52%

The above rates are based on 8.16% interest and RP-2000 Healthy Annuitant Mortality (weighted 1/3 male and 2/3 female), with adjustment for white collar workers.

General Member Settlement COL Contribution Rates

Settlement Contributions can be broken down into Basic and COL components, just like Regular Contributions. Members will be required to make contributions based on the following schedule.

Age	Rate on First	Rate on	Age	Rate on First	Rate on
	\$350 of	Compensation		\$350 of	Compensation
	Monthly	in Excess of		Monthly	in Excess of
	Compensation	\$350 per		Compensation	\$350 per
		Month			Month
20	0.71%	1.07%	40	1.03%	1.55%
21	0.73%	1.09%	41	1.05%	1.58%
22	0.74%	1.11%	42	1.08%	1.62%
23	0.75%	1.13%	43	1.10%	1.65%
24	0.77%	1.16%	44	1.13%	1.69%
25	0.79%	1.18%	45	1.15%	1.73%
26	0.80%	1.20%	46	1.18%	1.77%
27	0.81%	1.22%	47	1.21%	1.82%
28	0.83%	1.24%	48	1.25%	1.88%
29	0.85%	1.27%	49	1.30%	1.95%
30	0.86%	1.29%	50	1.37%	2.05%
31	0.87%	1.31%	51	1.29%	1.94%
32	0.89%	1.34%	52	1.21%	1.82%
33	0.91%	1.36%	53	1.13%	1.70%
34	0.93%	1.39%	54	1.04%	1.56%
35	0.94%	1.41%	55	0.95%	1.43%
36	0.96%	1.44%	56	0.97%	1.45%
37	0.98%	1.47%	57	0.97%	1.46%
38	0.99%	1.49%	58	0.99%	1.48%
39	1.01%	1.52%	59	1.00%	1.50%

The above rates are based on 8.16% interest and RP-2000 Healthy Annuitant Mortality (weighted 1/3 male and 2/3 female), with adjustment for white collar workers.

General Member Contribution Rates (Basic plus Settlement with COL)

The following schedule shows the total contribution rates required of General Members for the coming year.

Age	Rate on First \$350 of Monthly Compensation	Rate on Compensation in Excess of \$350 per Month	Age	Rate on First \$350 of Monthly Compensation	Rate on Compensation in Excess of \$350 per Month
20	4.69%	7.04%	40	6.83%	10.25%
21	4.79%	7.18%	41	6.96%	10.44%
22	4.87%	7.31%	42	7.10%	10.66%
23	4.97%	7.45%	43	7.24%	10.85%
24	5.06%	7.60%	44	7.39%	11.08%
25	5.16%	7.74%	45	7.54%	11.31%
26	5.27%	7.90%	46	7.70%	11.54%
27	5.36%	8.04%	47	7.87%	11.81%
28	5.47%	8.20%	48	8.05%	12.08%
29	5.56%	8.35%	49	8.25%	12.38%
30	5.67%	8.51%	50	8.51%	12.76%
31	5.78%	8.67%	51	8.48%	12.72%
32	5.90%	8.84%	52	8.45%	12.67%
33	6.00%	9.00%	53	8.40%	12.60%
34	6.12%	9.18%	54	8.38%	12.57%
35	6.22%	9.34%	55	8.38%	12.56%
36	6.34%	9.51%	56	8.37%	12.56%
37	6.46%	9.68%	57	8.37%	12.55%
38	6.58%	9.87%	58	8.37%	12.56%
39	6.71%	10.06%	59	8.37%	12.56%

The above rates are based on 8.16% interest and RP-2000 Healthy Annuitant Mortality (weighted 1/3 male and 2/3 female), with adjustment for white collar workers.

G. Summary of Major Plan Provisions – Safety Members

Membership:	Employment (at least 50% of full-time) with County or participating district. Enter on first day of the first pay period after entrance into service. Positions must be one in which the principal duties consist of either active law enforcement or active fire suppression.
Final Average Salary (FAS):	Highest one-year average

Service Retirement

Eligibility:	10 years of service and age 50, or 20 years of service regardless of age.								
Benefit:	2.5% of FAS per year of service times RAF								
Retirement Age Factor (RAF):	Adjustment factor for benefit commencing at age other than 50. Sample factors:								
	<table> <thead> <tr> <th>Age</th> <th>Factor</th> </tr> </thead> <tbody> <tr> <td>45</td> <td>0.7805</td> </tr> <tr> <td>50</td> <td>1.0000</td> </tr> <tr> <td>55</td> <td>1.3099</td> </tr> </tbody> </table>	Age	Factor	45	0.7805	50	1.0000	55	1.3099
Age	Factor								
45	0.7805								
50	1.0000								
55	1.3099								
Integration with Social Security:	Benefits based on first \$350 of monthly FAS are reduced by 1/3. Benefits for some District members are not integrated with Social Security.								
Maximum Benefit:	100% of FAS								
Normal Form of Benefit:	Life annuity; 60% continuance to spouse after death of member. If there is no surviving spouse, the benefit is paid to eligible children.								

Nonservice Connected Disability

Eligibility:	5 years of service.
Disabled Definition:	Unable to perform their own job.
Benefit:	90% of accrued benefit, or 2.25% of FAS multiplied by service projected to age 55, but not more than 33.333% of FAS. Cannot be less than Service Retirement benefit (if eligible at time of commencement).
Normal Form of Benefit:	Life annuity; 60% continuance to spouse after death of member. If there is no surviving spouse, the benefit is paid to eligible children.

Service Connected Disability

Eligibility:	First day of work
Disabled Definition:	Disability is substantially caused by employment and unable to perform his or her own job.
Benefit:	50% of salary, but not less than Service Retirement benefit (if eligible at time of commencement).
Normal Form of Benefit:	Life annuity; 100% continuance to spouse after death of member. If there is no surviving spouse, the benefit is paid to eligible children.

Nonservice Connected Death

Before eligible for Nonservice Connected Disability or Service Retirement:	Refund of employee contributions with interest, plus 1 month's salary for each year of service (maximum 6 months' salary).
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**After eligible for Nonservice
Connected Disability or Service
Retirement:**

60% of Nonservice Connected Disability Benefit or Service Retirement Benefit the member would have received for retirement on day of death payable to surviving eligible spouse for the life of the spouse. If there is no surviving spouse, the benefit is paid to eligible children.

Service Connected Death**Eligibility:**

First day of work

Benefit:

50% of salary, but not less than Service Retirement benefit (if eligible at time of commencement).

Normal Form of Benefit:

Life annuity to spouse after death of member. If there is no surviving spouse, the benefit is paid to eligible children.

Deferred Service Retirement**Eligibility:**

5 years of service

Additional requirement:

Must leave contributions on deposit

Benefit:

Same as service retirement benefit

FAS:

If reciprocity provisions apply, includes compensation earned at reciprocal agency.

Normal Form of Benefit:

Same as service retirement benefit

Withdrawal**Eligibility:**

First day of work

Other Requirement:	Forfeits right to receive other benefit from retirement system.
Benefit:	Accumulated contributions with interest
Form of Benefit:	Lump sum

Cost of Living Benefits

Timing:	Annually, effective April 1 for all those who retired prior to April 1. Based on change in Consumer Price Index (CPI) for the San Francisco Bay Area for the preceding calendar year.
Maximum:	3% per year, with "banking" of COLAs. When the COLA bank for a retiree or beneficiary exceeds 25%, it is the intention of the Retirement Board to provide additional benefits that would maintain a retiree's benefit at 75% of their original purchasing power. These purchasing power benefits are not guaranteed by the County (or other participating employers) and are considered non-Valuation benefits. These benefits have historically been paid out of Undistributed Earnings.

Health Benefits

Eligibility:	Receipt of a lifetime annuity upon service retirement, disability retirement, deferred vested retirement, or service-connected death.
Benefit:	For members entering the plan prior to 1/1/1990, the monthly benefit is \$45 plus \$6.50 per year of service. For members entering the plan on or after 1/1/90, the benefit is \$8 per year of service. Benefits

are capped at \$240 per month.

Under the terms of the Ventura Settlement, a benefit of \$3 per year of service is guaranteed by the County (and other participating employers). Any remaining benefit is not guaranteed, although it is the intention of the Board to use Undistributed Earnings to pay for these non-Valuation benefits.

Normal Form of Benefit:

Life annuity to spouse after death of member.

Member Contributions

Basic:

Contribution is set by a table adopted by the Retirement Board designed to be sufficient to provide an average annuity, at age 50, equal to 1/200 of the final compensation of members.

Settlement:

Additional contribution is set by a table adopted by the Retirement Board designed to be sufficient (along with Basic Contributions for Regular Benefits) to provide an average annuity, at age 50, equal to 1/160 of the final compensation of members. This additional amount is paid from Undistributed Earnings when Undistributed Earnings are available.

COLA:

Members pay for 50% of the cost of the COLA. For the current year, that would increase Basic Contribution rates by 92%.

Percentage of Full Contribution Payable by Member:

Employees with more than 30 years of service who were hired prior to March 7, 1973, do not pay employee contributions.

Integration with Social Security:

Members integrated with Social Security pay 2/3 of the full rate on first \$350 of pay each month.

Other Provisions:

Rates based on age at entry into System.



H. Member Contribution Rates – Safety Members

Member contribution rates are calculated as a percentage of the member's pay, on the basis of the member's age at entry into System, the classification of the member, the Plan's economic assumptions and the member's life expectancy at the retirement age specified for this purpose in the County Employees Retirement Law of 1937 (1937 Act).

Safety Member *Basic* Contribution Rates

Members will be required to make contributions based on the following schedule.

Age	Rate on First \$350 of Monthly Compensation	Rate on Compensation in Excess of \$350 per Month	Age	Rate on First \$350 of Monthly Compensation	Rate on Compensation in Excess of \$350 per Month
20	2.35%	3.53%	35	3.13%	4.70%
21	2.40%	3.60%	36	3.20%	4.80%
22	2.45%	3.67%	37	3.27%	4.91%
23	2.49%	3.73%	38	3.35%	5.02%
24	2.53%	3.80%	39	3.43%	5.15%
25	2.58%	3.87%	40	3.53%	5.29%
26	2.63%	3.94%	41	3.63%	5.45%
27	2.68%	4.02%	42	3.75%	5.63%
28	2.73%	4.09%	43	3.72%	5.58%
29	2.78%	4.17%	44	3.69%	5.53%
30	2.83%	4.25%	45	3.66%	5.49%
31	2.89%	4.33%	46	3.63%	5.44%
32	2.95%	4.42%	47	3.60%	5.40%
33	3.01%	4.51%	48	3.57%	5.35%
34	3.07%	4.60%	49	3.54%	5.31%

The above rates are based on 8.16% interest and RP-2000 Healthy Annuitant Mortality (weighted 5/6 male and 1/6 female), with adjustment for blue collar workers.

Safety Member Basic *Settlement* Contribution Rates

Members will be required to make contributions based on the following schedule.

Age	Rate on First \$350 of Monthly Compensation	Rate on Compensation in Excess of \$350 per Month	Age	Rate on First \$350 of Monthly Compensation	Rate on Compensation in Excess of \$350 per Month
20	0.59%	0.88%	35	0.78%	1.17%
21	0.60%	0.90%	36	0.80%	1.20%
22	0.61%	0.92%	37	0.82%	1.23%
23	0.62%	0.93%	38	0.84%	1.26%
24	0.63%	0.95%	39	0.86%	1.29%
25	0.65%	0.97%	40	0.88%	1.32%
26	0.66%	0.99%	41	0.91%	1.36%
27	0.67%	1.00%	42	0.94%	1.41%
28	0.68%	1.02%	43	0.93%	1.40%
29	0.69%	1.04%	44	0.92%	1.38%
30	0.71%	1.06%	45	0.91%	1.37%
31	0.72%	1.08%	46	0.91%	1.36%
32	0.73%	1.10%	47	0.90%	1.35%
33	0.75%	1.13%	48	0.89%	1.34%
34	0.77%	1.15%	49	0.89%	1.33%

The above rates are based on 8.16% interest and RP-2000 Healthy Annuitant Mortality (weighted 5/6 male and 1/6 female), with adjustment for blue collar workers.

Safety Member COL Contribution Rates

In past years, the additional contributions required to pay for cost of living benefits, for both members and employers, were often provided through Undistributed Earnings. Since there are no Undistributed Earnings available at this time to pay for the cost of living benefits, members will be required to make contributions based on the following schedule.

Age	Rate on First \$350 of Monthly Compensation	Rate on Compensation in Excess of \$350 per Month	Age	Rate on First \$350 of Monthly Compensation	Rate on Compensation in Excess of \$350 per Month
20	2.17%	3.25%	35	2.88%	4.32%
21	2.21%	3.31%	36	2.95%	4.42%
22	2.25%	3.38%	37	3.01%	4.52%
23	2.29%	3.43%	38	3.08%	4.62%
24	2.33%	3.50%	39	3.16%	4.74%
25	2.37%	3.56%	40	3.25%	4.87%
26	2.41%	3.62%	41	3.34%	5.01%
27	2.47%	3.70%	42	3.45%	5.18%
28	2.51%	3.76%	43	3.42%	5.13%
29	2.56%	3.84%	44	3.39%	5.09%
30	2.61%	3.91%	45	3.37%	5.05%
31	2.65%	3.98%	46	3.33%	5.00%
32	2.71%	4.07%	47	3.31%	4.97%
33	2.77%	4.15%	48	3.28%	4.92%
34	2.82%	4.23%	49	3.26%	4.89%

The above rates are based on 8.16% interest and RP-2000 Healthy Annuitant Mortality (weighted 5/6 male and 1/6 female), with adjustment for blue collar workers.

Safety Member *Settlement* COL Contribution Rates

Settlement Contributions can be broken down into Basic and COL components, just like Regular Contributions. Members will be required to make contributions based on the following schedule.

Age	Rate on First	Rate on	Age	Rate on First	Rate on
	\$350 of	Compensation		\$350 of	Compensation
	Monthly	in Excess of		Monthly	in Excess of
	Compensation	\$350 per		Compensation	\$350 per
		Month			Month
20	0.54%	0.81%	35	0.72%	1.08%
21	0.55%	0.83%	36	0.73%	1.10%
22	0.57%	0.85%	37	0.75%	1.13%
23	0.57%	0.86%	38	0.77%	1.16%
24	0.58%	0.87%	39	0.79%	1.19%
25	0.59%	0.89%	40	0.81%	1.21%
26	0.61%	0.91%	41	0.83%	1.25%
27	0.61%	0.92%	42	0.87%	1.30%
28	0.63%	0.94%	43	0.86%	1.29%
29	0.64%	0.96%	44	0.85%	1.27%
30	0.65%	0.98%	45	0.84%	1.26%
31	0.66%	0.99%	46	0.83%	1.25%
32	0.67%	1.01%	47	0.83%	1.24%
33	0.69%	1.04%	48	0.82%	1.23%
34	0.71%	1.06%	49	0.81%	1.22%

The above rates are based on 8.16% interest and RP-2000 Healthy Annuitant Mortality (weighted 5/6 male and 1/6 female), with adjustment for blue collar workers.

Safety Member Contribution Rates (Basic plus Settlement with COL)

The following schedule shows the total contribution rates required of Safety Members for the coming year.

Age	Rate on First \$350 of Monthly Compensation	Rate on Compensation in Excess of \$350 per Month	Age	Rate on First \$350 of Monthly Compensation	Rate on Compensation in Excess of \$350 per Month
20	5.65%	8.47%	35	7.51%	11.27%
21	5.76%	8.64%	36	7.68%	11.52%
22	5.88%	8.82%	37	7.86%	11.79%
23	5.97%	8.95%	38	8.04%	12.06%
24	6.08%	9.12%	39	8.25%	12.37%
25	6.19%	9.29%	40	8.46%	12.69%
26	6.31%	9.46%	41	8.71%	13.07%
27	6.43%	9.64%	42	9.01%	13.52%
28	6.54%	9.81%	43	8.93%	13.40%
29	6.67%	10.01%	44	8.85%	13.27%
30	6.80%	10.20%	45	8.78%	13.17%
31	6.92%	10.38%	46	8.70%	13.05%
32	7.07%	10.60%	47	8.64%	12.96%
33	7.22%	10.83%	48	8.56%	12.84%
34	7.36%	11.04%	49	8.50%	12.75%

The above rates are based on 8.16% interest and RP-2000 Healthy Annuitant Mortality (weighted 5/6 male and 1/6 female), with adjustment for blue collar workers.

I. Summary of Actuarial Assumptions and Funding Methods

This actuarial valuation report has been prepared in accordance with generally accepted actuarial principles and practices. The major assumptions and methods used in this valuation are as follows:

Economic Assumptions

Interest:	8.16% per year.
Salary Increase – Total Payroll:	4.0 % per year.
Salary Increase – Individual:	Rates varying by service, as shown in Schedule 1.
Inflation:	4.0% per year.
Employee Contribution Interest Crediting Rate:	8.16% per year.

Demographic Assumptions

Post-retirement mortality:

- **Service Retirement - General:** RP-2000 Healthy Annuitant Mortality, with adjustment for white collar workers. Life expectancies are shown in Schedules 2.
- **Service Retirement - Safety:** RP-2000 Healthy Annuitant Mortality, with adjustment for blue collar workers. Life expectancies are shown in Schedules 3.
- **Disability Retirement:** RP-2000 Disabled Annuitant Mortality. Life expectancies are shown in Schedules 4.
- **Spouse:** RP-2000 Healthy Annuitant Mortality, with adjustment for white collar workers.

<i>Withdrawal (termination with refund of member contributions):</i>	Rates varying by age, as shown in Schedule 5 (for General males), 6 (for General females) and 7 (for Safety). Proportion of total terminations varying by service, as shown in Schedule 8.
<i>Vested Termination (termination with retirement pension deferred to age 63 for General and age 55 for Safety members):</i>	Rates varying by age, as shown in Schedule 5 (for General males), 6 (for General females) and 7 (for Safety). Proportion of total terminations varying by service, as shown in Schedule 8. Half of all members are assumed to join a reciprocal agency immediately after termination.
<i>Pre-retirement mortality:</i>	Rates varying by age, as shown in Schedule 5 (for General males), 6 (for General females) and 7 (for Safety). There are separate rates for ordinary death and service related death.
<i>Service Disability:</i>	Rates varying by age, as shown in Schedule 5 (for General males), 6 (for General females) and 7 (for Safety).
<i>Ordinary Disability:</i>	Rates varying by age, as shown in Schedule 5 (for General males), 6 (for General females) and 7 (for Safety).
<i>Service Retirement:</i>	Rates varying by age, as shown in Schedule 5 (for General males), 6 (for General females) and 7 (for Safety).
<i>Form of Payment:</i>	Life annuity for single members. 60% contingent annuity for married members (100% contingent annuity if receiving service-related disability).
<i>Percentage Married at Retirement:</i>	90% of male active members and 50% of female active members assumed married at retirement.
<i>Benefit Eligibility:</i>	For decrement purposes, all active members are considered potentially eligible for all benefits without regard to service requirements. The demographic decrements take the eligibility

requirements into account.

Spouse Ages

For active members reaching retirement, wives are assumed to be three years younger than husbands.

Where spousal information was included for retirees, that information was used. If no beneficiary information was present, it was assumed that there was no eligible beneficiary.

Actuarial Methods

Funding Method:

Entry Age Normal Funding Method.

Amortization Period:

The Unfunded Actuarial Accrued Liability (UAAL) is amortized as a level percentage of payroll in pieces based on how the UAAL developed. The initial UAAL in the June 30, 2003 valuation for Regular Benefits was amortized over a 30-year period beginning with that valuation. The UAAL for Settlement Benefits were also amortized over the same 30-year period. Beginning with the June 30, 2004 valuation, any UAAL arising from a plan amendment, legislative change or court decision will be amortized over 30 years from the following valuation. Any other UAAL will be amortized over a 15-year period from the valuation in which it arises.

Actuarial Value of Assets:

The market value of assets is adjusted to recognize, over a five-year period, investment earnings greater than (or less than) the assumed investment return. Details are shown in the Asset Information Section of the report.

Data Sources

Asset Data:

The asset information is taken directly from statements furnished by the Retirement Office and used without audit.

Member Data:

The member data was supplied by the Retirement Office. It is reviewed for reasonableness and consistency, but no audit was performed. Public Pension Professionals is not aware of any errors or omissions in the data that would have a significant effect on the results of our calculations. Additional comments related to data preparation are included in Section K.

Schedule 1

Assumed Rate of Salary Increase

Years of Service	General Members	Safety Members
0	9.00%	6.00%
1	9.00%	6.00%
2	9.00%	6.00%
3	9.00%	6.00%
4	9.00%	6.00%
5	4.75%	6.00%
6	4.75%	6.00%
7	4.75%	6.00%
8 or more	4.75%	5.00%

Schedule 2
Life Expectancies at Sample Ages
Healthy General Members

Age	Male	Female	Age	Male	Female
20	58.04	63.01	70	14.48	16.98
21	57.09	62.03	71	13.76	16.23
22	56.15	61.05	72	13.04	15.26
23	55.21	60.06	73	12.35	14.54
24	54.26	59.08	74	11.67	13.84
25	53.32	58.10	75	11.02	13.16
26	52.38	57.12	76	10.38	12.49
27	51.43	56.13	77	9.77	11.84
28	50.49	55.15	78	9.18	11.21
29	49.54	54.17	79	8.61	10.59
30	48.60	53.19	80	8.06	10.00
31	47.66	52.21	81	7.54	9.43
32	46.72	51.23	82	7.04	8.87
33	45.80	50.26	83	6.56	8.34
34	44.88	49.29	84	6.11	7.84
35	43.96	48.32	85	5.69	7.35
36	43.06	47.35	86	5.29	6.90
37	42.16	46.39	87	4.92	6.47
38	41.26	45.42	88	4.58	6.08
39	40.37	44.46	89	4.26	5.72
40	39.49	43.51	90	3.97	5.38
41	38.61	42.55	91	3.72	5.08
42	37.73	41.60	92	3.49	4.81
43	36.85	40.65	93	3.28	4.57
44	35.99	39.70	94	3.09	4.36
45	35.13	38.76	95	2.93	4.17
46	34.27	37.83	96	2.78	4.01
47	33.43	36.89	97	2.65	3.86
48	32.59	35.96	98	2.53	3.72
49	31.75	35.04	99	2.43	3.59
50	30.93	34.12	100	2.33	3.47
51	30.11	33.20	101	2.25	3.33
52	29.29	32.28	102	2.19	3.19
53	28.46	31.37	103	2.14	3.05
54	27.62	30.46	104	2.11	2.91
55	26.77	29.55	105	2.09	2.78
56	25.91	28.65	106	2.08	2.65
57	25.05	27.76	107	2.08	2.54
58	24.19	26.88	108	2.08	2.44
59	23.32	26.00	109	2.08	2.35
60	22.46	25.13	110	2.07	2.28
61	21.61	24.27	111	2.07	2.21
62	20.76	23.42	112	2.05	2.16
63	19.93	22.57	113	2.04	2.11
64	19.11	21.74	114	2.01	2.06
65	18.30	20.91	115	1.96	2.00
66	17.51	20.10	116	1.87	1.91
67	16.74	19.30	117	1.74	1.77
68	15.97	18.51	118	1.52	1.54
69	15.22	17.74	119	1.15	1.16

General Members – RP-2000 Healthy Mortality, with adjustment for white collar



Schedule 3

Life Expectancies at Sample Ages**Healthy Safety Members**

Age	Male	Female	Age	Male	Female
20	56.26	61.99	70	13.31	15.77
21	55.31	61.00	71	12.66	15.05
22	54.36	60.02	72	12.03	14.36
23	53.42	59.03	73	11.41	13.69
24	52.47	58.04	74	10.81	13.03
25	51.52	57.06	75	10.23	12.40
26	50.57	56.07	76	9.66	11.77
27	49.62	55.08	77	9.12	11.17
28	48.67	54.10	78	8.60	10.57
29	47.72	53.11	79	8.09	10.00
30	46.77	52.13	80	7.61	9.43
31	45.82	51.15	81	7.15	8.89
32	44.88	50.16	82	6.71	8.37
33	43.95	49.19	83	6.29	7.87
34	43.02	48.21	84	5.89	7.40
35	42.10	47.23	85	5.52	6.95
36	41.18	46.26	86	5.17	6.53
37	40.27	45.29	87	4.83	6.14
38	39.36	44.32	88	4.53	5.78
39	38.46	43.35	89	4.24	5.45
40	37.56	42.38	90	3.98	5.15
41	36.67	41.42	91	3.74	4.88
42	35.78	40.45	92	3.52	4.64
43	34.89	39.49	93	3.32	4.42
44	34.01	38.54	94	3.14	4.23
45	33.13	37.58	95	2.97	4.05
46	32.26	36.63	96	2.82	3.89
47	31.39	35.69	97	2.69	3.75
48	30.53	34.74	98	2.57	3.62
49	29.68	33.80	99	2.47	3.49
50	28.83	32.86	100	2.37	3.37
51	27.99	31.93	101	2.29	3.24
52	27.16	30.99	102	2.23	3.10
53	26.32	30.05	103	2.18	2.96
54	25.49	29.12	104	2.14	2.82
55	24.67	28.19	105	2.12	2.69
56	23.84	27.27	106	2.12	2.57
57	23.02	26.36	107	2.12	2.46
58	22.21	25.45	108	2.11	2.36
59	21.40	24.56	109	2.11	2.28
60	20.61	23.69	110	2.11	2.20
61	19.82	22.83	111	2.10	2.14
62	19.05	21.98	112	2.09	2.09
63	18.28	21.16	113	2.07	2.04
64	17.53	20.34	114	2.04	2.00
65	16.79	19.55	115	1.98	1.94
66	16.06	18.76	116	1.90	1.86
67	15.35	17.99	117	1.76	1.73
68	14.65	17.24	118	1.53	1.51
69	13.97	16.49	119	1.15	1.15

Safety Members – RP-2000 Healthy Mortality, with adjustment for blue collar

Schedule 4

Life Expectancies at Sample Ages
Disabled General and Safety Members

Age	Male	Female	Age	Male	Female
20	30.81	46.81	70	9.81	12.98
21	30.51	46.16	71	9.43	12.46
22	30.20	45.50	72	9.05	11.96
23	29.89	44.84	73	8.69	11.47
24	29.57	44.17	74	8.33	11.00
25	29.24	43.50	75	7.99	10.53
26	28.90	42.82	76	7.65	10.09
27	28.55	42.14	77	7.33	9.65
28	28.20	41.45	78	7.02	9.23
29	27.84	40.76	79	6.72	8.81
30	27.47	40.06	80	6.43	8.42
31	27.09	39.36	81	6.16	8.03
32	26.70	38.65	82	5.89	7.66
33	26.31	37.93	83	5.63	7.29
34	25.90	37.22	84	5.38	6.94
35	25.49	36.49	85	5.14	6.61
36	25.07	35.76	86	4.90	6.28
37	24.63	35.03	87	4.66	5.97
38	24.19	34.28	88	4.41	5.67
39	23.73	33.54	89	4.16	5.39
40	23.27	32.78	90	3.90	5.12
41	22.79	32.03	91	3.65	4.87
42	22.31	31.26	92	3.43	4.63
43	21.81	30.49	93	3.23	4.40
44	21.30	29.72	94	3.04	4.20
45	20.78	28.94	95	2.88	4.02
46	20.25	28.15	96	2.73	3.85
47	19.73	27.38	97	2.60	3.71
48	19.23	26.62	98	2.49	3.58
49	18.73	25.88	99	2.38	3.46
50	18.25	25.15	100	2.29	3.33
51	17.78	24.44	101	2.21	3.20
52	17.32	23.74	102	2.15	3.07
53	16.86	23.06	103	2.10	2.93
54	16.42	22.39	104	2.06	2.79
55	15.98	21.73	105	2.05	2.66
56	15.55	21.09	106	2.04	2.54
57	15.12	20.46	107	2.04	2.43
58	14.69	19.83	108	2.04	2.34
59	14.27	19.22	109	2.04	2.25
60	13.86	18.62	110	2.03	2.18
61	13.44	18.02	111	2.03	2.11
62	13.03	17.43	112	2.02	2.06
63	12.61	16.85	113	2.00	2.02
64	12.20	16.27	114	1.97	1.98
65	11.80	15.70	115	1.93	1.93
66	11.39	15.14	116	1.85	1.85
67	10.99	14.58	117	1.72	1.72
68	10.59	14.04	118	1.50	1.50
69	10.20	13.50	119	1.14	1.14

Disabled Members – RP-2000 Disabled Mortality



Schedule 5

Probability of Separation from Active Service
(Number separating at each age per 10,000 working at that age)

General Members - Male

Age	Total Termination	Ordinary Death	Ordinary Disability	Service Retirement	Service Death	Service Disability
20	750	10	1	-	-	-
21	720	10	1	-	-	-
22	710	10	1	-	-	-
23	700	10	1	-	-	-
24	690	11	1	-	-	-
25	680	11	1	-	-	1
26	670	11	1	-	-	1
27	660	11	1	-	-	1
28	650	11	1	-	-	1
29	640	12	1	-	-	1
30	630	12	1	-	-	1
31	620	14	1	-	-	1
32	610	16	1	-	-	1
33	600	18	1	-	-	1
34	590	20	1	-	-	1
35	580	22	2	-	-	1
36	570	24	2	-	-	1
37	560	25	3	-	-	1
38	550	27	3	-	-	1
39	540	29	3	-	-	1
40	530	30	3	-	-	2
41	520	32	3	-	-	2
42	510	34	4	-	-	2
43	500	36	5	-	-	2
44	490	39	5	-	-	3
45	480	42	6	-	-	3
46	470	45	7	-	-	4
47	460	49	8	-	-	4
48	450	52	9	-	-	5
49	440	56	10	-	-	5
50	430	60	11	500	-	6
51	420	60	13	300	-	6
52	410	59	15	300	-	7
53	400	57	16	300	-	8
54	390	56	18	450	-	9
55	380	54	19	600	-	10
56	370	54	21	1000	-	11
57	360	55	23	1500	-	11
58	350	57	24	2000	-	12
59	340	61	25	2500	-	13
60	330	66	26	3000	-	13
61	320	73	27	3000	-	13
62	310	82	27	5000	-	14
63	300	92	28	3000	-	14
64	290	104	29	3000	-	14
65	-	116	-	4000	-	-
66	-	130	-	4000	-	-
67	-	144	-	4000	-	-
68	-	158	-	6000	-	-
69	-	174	-	8000	-	-
70	-	-	-	10,000	-	-

Schedule 6

Probability of Separation from Active Service
 (Number separating at each age per 10,000 working at that age)

General Members - Female

Age	Total Termination	Ordinary Death	Ordinary Disability	Service Retirement	Service Death	Service Disability
20	840	3	1	-	-	-
21	804	3	1	-	-	-
22	792	3	1	-	-	-
23	780	3	1	-	-	-
24	768	3	1	-	-	-
25	756	3	1	-	-	1
26	744	3	1	-	-	1
27	732	3	1	-	-	1
28	720	3	1	-	-	1
29	708	4	1	-	-	1
30	696	4	1	-	-	1
31	684	4	1	-	-	1
32	672	5	1	-	-	1
33	660	6	1	-	-	1
34	648	6	1	-	-	1
35	636	7	2	-	-	1
36	624	8	2	-	-	1
37	612	8	2	-	-	1
38	600	9	3	-	-	1
39	588	9	3	-	-	2
40	576	10	3	-	-	2
41	564	11	4	-	-	2
42	552	12	4	-	-	2
43	540	14	5	-	-	2
44	528	15	5	-	-	2
45	516	16	5	-	-	3
46	504	18	6	-	-	3
47	492	19	7	-	-	3
48	480	21	8	-	-	4
49	468	23	9	-	-	4
50	456	24	9	400	-	5
51	444	25	10	400	-	5
52	432	27	11	400	-	6
53	420	29	12	400	-	6
54	408	32	13	400	-	7
55	396	35	14	1000	-	7
56	384	39	15	1000	-	8
57	372	43	16	1000	-	8
58	360	47	17	1500	-	9
59	348	51	19	1750	-	9
60	336	56	21	2000	-	10
61	324	61	23	2000	-	11
62	312	67	25	4000	-	12
63	300	74	27	2000	-	13
64	288	82	29	2000	-	15
65	-	91	-	4500	-	-
66	-	101	-	3000	-	-
67	-	112	-	3000	-	-
68	-	124	-	3000	-	-
69	-	137	-	3000	-	-
70	-	-	-	10,000	-	-

Schedule 7

Probability of Separation from Active Service
(Number separating at each age per 10,000 working at that age)

Safety Members

Age	Total Termination	Ordinary Death	Ordinary Disability	Service Retirement	Service Death	Service Disability
20	701	10	-	-	10	6
21	641	10	-	-	10	6
22	608	10	-	-	10	6
23	575	10	-	-	10	7
24	543	11	-	-	10	7
25	513	11	-	-	10	10
26	500	11	-	-	10	11
27	500	11	-	-	10	13
28	520	11	-	-	10	14
29	553	12	-	-	10	15
30	593	12	-	-	10	16
31	627	14	-	-	10	18
32	567	16	-	-	10	20
33	507	18	-	-	10	22
34	447	20	-	-	10	26
35	393	22	-	-	10	29
36	340	24	-	-	10	31
37	307	25	-	-	10	35
38	273	27	-	-	10	39
39	240	29	-	-	10	44
40	207	30	-	-	10	49
41	180	32	-	-	10	53
42	153	34	-	-	10	58
43	120	36	-	-	10	64
44	93	39	-	-	10	70
45	80	42	-	300	10	77
46	67	45	-	300	10	85
47	53	49	-	300	10	93
48	45	52	-	300	10	103
49	37	56	-	300	10	113
50	33	60	-	600	10	1076
51	27	60	-	700	10	132
52	27	59	-	800	10	143
53	20	57	-	1500	10	154
54	-	56	-	2500	10	165
55	-	54	-	5000	10	175
56	-	54	-	2500	10	186
57	-	55	-	2500	10	197
58	-	57	-	4000	10	207
59	-	61	-	4000	10	218
60	-	-	-	10,000	-	-

Schedule 8

**Proportion of Terminations
Receiving Refunds and Deferred Vested Benefits**

Years of Service	Refunds	Deferred Vested
0	100%	0%
1	100%	0%
2	100%	0%
3	100%	0%
4	100%	0%
5	25%	75%
6	25%	75%
7	25%	75%
8	25%	75%
9	25%	75%
10	16.7%	83.3%
11	16.7%	83.3%
12	16.7%	83.3%
13	16.7%	83.3%
14	16.7%	83.3%
15	10%	90%
16	10%	90%
17	10%	90%
18	10%	90%
19	10%	90%
20 or more	0%	100%

J. Member Information

Active Participants

General Members	June 30, 2004	June 30, 2003
Total Number	6,540	6,666
Valuation Number*	6,534	6,660
Average Age	43.5	43.3
Average Service	9.0	8.6
Percent Male	35.4%	35.4%
Average Annual Pay	\$43,325	\$42,981
Total Covered Payroll	\$283,345,354	\$286,511,138
Valuation Payroll*	\$283,135,520	\$286,278,925
Safety Members		
Total Number	914	943
Valuation Number*	911	939
Average Age	39.5	39.0
Average Service	10.1	9.5
Percent Male	83.4%	82.9%
Average Annual Pay	\$59,899	\$59,295
Total Covered Payroll	\$54,747,811	\$55,915,406
Valuation Payroll*	\$54,478,246	\$55,702,460
Total Active Members		
Total Number	7,454	7,609
Valuation Number*	7,445	7,599
Average Age	43.0	42.7
Average Service	9.1	8.7
Percent Male	41.3%	41.2%
Average Annual Pay	\$45,357	\$45,003
Total Covered Payroll	\$338,093,165	\$342,426,544
Valuation Payroll*	\$337,613,766	\$341,981,385

*Valuation number is the count for active members excluding those who are currently older than the last assumed retirement age. The covered payroll shown also excludes pay for these members.



Actuaries you can understand

Terminated Vested Participants

General Members	June 30, 2004	June 30, 2003
Number	1,210	1,255
Average Age	48.3	48.1
Percent Male	40.7%	40.9%
 Safety Members		
Number	90	96
Average Age	44.5	44.2
Percent Male	80.0%	79.2%
 All Members		
Number	1,300	1,351
Average Age	48.1	47.7
Percent Male	43.4%	44.8%

Retired Participants

General Members

Service Retirements and Beneficiaries

June 30, 2004

June 30, 2003

Number	3,682	3,403
Average Age	69.4	69.3
Percent Male	39.5%	39.0%
Average Monthly Benefit	\$1,906	\$1,814

Disabled

Number	166	146
Average Age	65.2	66.7
Percent Male	41.6%	41.8%
Average Monthly Benefit	\$1,416	\$1,394

Total General

Number	3,848	3,549
Average Age	69.2	69.2
Percent Male	39.6%	39.1%
Average Monthly Benefit	\$1,885	\$1,796

Benefits include settlement benefits, except for Health benefits. Also included are purchasing power benefits.

Safety Members

Service Retirements and Beneficiaries

June 30, 2004

June 30, 2003

Number	401	391
Average Age	64.1	63.6
Percent Male	78.8%	78.5%
Average Monthly Benefit	\$4,023	\$3,252

Disabled

Number	82	85
Average Age	54.2	53.1
Percent Male	79.3%	75.3%
Average Monthly Benefit	\$2,355	\$2,329

Total Safety

Number	483	476
Average Age	62.4	61.7
Percent Male	78.9%	77.9%
Average Monthly Benefit	\$3,740	\$3,088

Benefits include settlement benefits, except for Health benefits. Also included are purchasing power benefits.

Total Members

Service Retirements and Beneficiaries

June 30, 2004

June 30, 2003

Number	4,083	3,794
Average Age	68.8	68.7
Percent Male	43.4%	43.1%
Average Monthly Benefit	\$2,114	\$1,962

Disabled

Number	248	231
Average Age	61.6	61.7
Percent Male	54.0%	54.1%
Average Monthly Benefit	\$1,726	\$1,738

Total Retirees

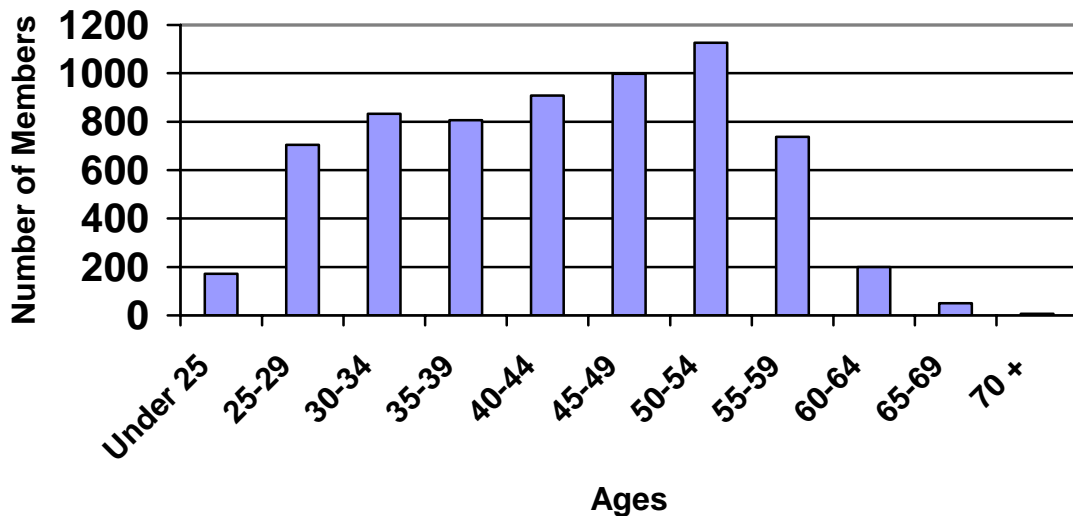
Number	4,331	4,025
Average Age	68.4	68.3
Percent Male	44.0%	43.7%
Average Monthly Benefit	\$2,092	\$1,949

Benefits include settlement benefits, except for Health benefits. Also included are purchasing power benefits.

Active General Members by Age and Service as of June 30, 2004

Service >>>	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Age									
Under 25	65	106	1	0	0	0	0	0	172
25-29	89	509	106	0	0	0	0	0	704
30-34	57	443	284	48	1	0	0	0	833
35-39	51	302	260	147	46	0	0	0	806
40-44	37	267	236	191	149	25	3	0	908
45-49	28	241	204	183	151	130	59	2	998
50-54	24	218	198	186	199	124	133	44	1,126
55-59	11	128	138	139	116	85	73	47	737
60-64	2	45	52	40	27	19	11	4	200
65-69	0	10	11	18	8	1	1	1	50
70 +	0	1	0	4	1	0	0	0	6
Total	364	2,270	1,490	956	698	384	280	98	6,540

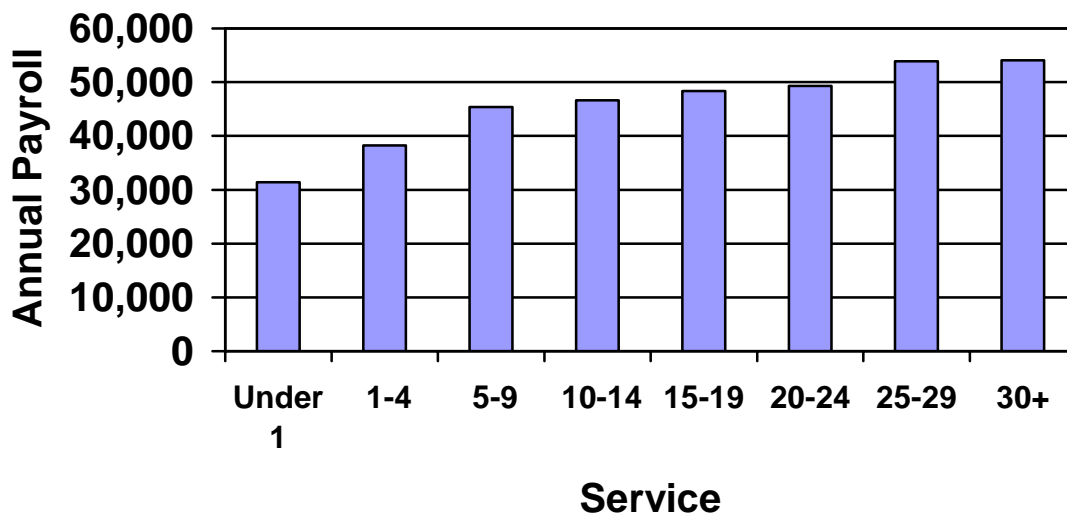
Active General Members by Age



Average Annual Full-Time Compensation for General Members by Age and Service as of June 30, 2004

Service >>	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Age									
Under									
25	22,290	29,324	36,478	0	0	0	0	0	26,708
25-29	27,886	35,236	38,162	0	0	0	0	0	34,747
30-34	34,790	37,365	44,492	42,533	42,822	0	0	0	39,923
35-39	35,172	38,896	46,340	45,887	43,429	0	0	0	42,595
40-44	35,747	39,639	45,810	48,460	47,366	43,166	56,056	0	44,359
45-49	38,803	40,848	46,466	46,433	52,459	49,832	47,122	39,624	46,259
50-54	35,915	42,407	45,793	45,723	47,821	50,865	55,055	56,934	47,362
55-59	28,552	40,986	45,767	47,047	47,881	50,731	57,654	52,723	47,448
60-64	71,789	43,627	47,583	45,071	44,306	37,660	50,991	43,596	45,155
65-69	0	48,298	61,367	56,081	51,189	29,042	38,298	61,828	54,123
70 +	0	29,057	0	36,111	38,610	0	0	0	35,352
Total	31,418	38,210	45,361	46,591	48,330	49,274	53,852	54,067	43,323

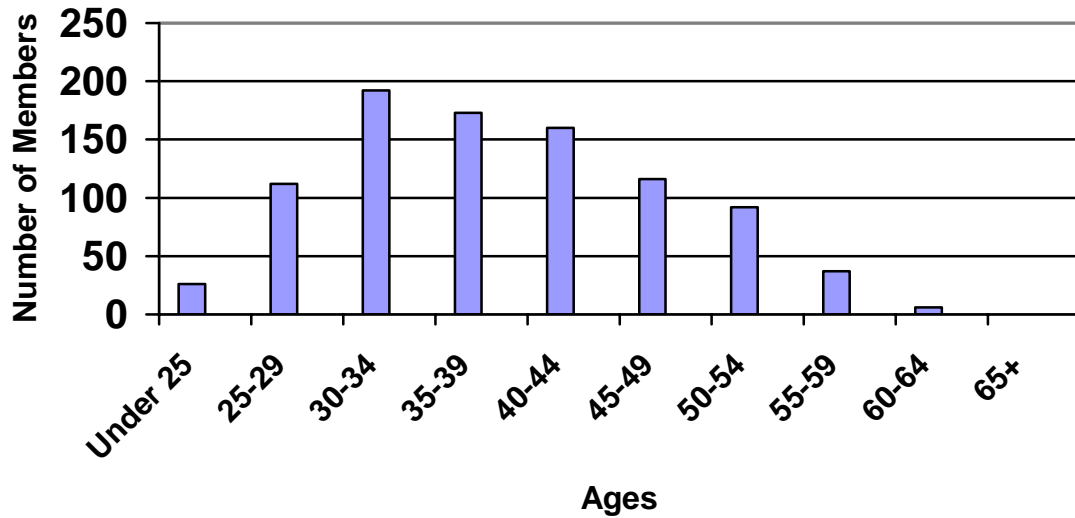
General Member Pay by Service



Active Safety Members by Age and Service as of June 30, 2004

Service	Under									
>>	1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total	
Age										
Under										
25	4	22	0	0	0	0	0	0	26	
25-29	11	83	18	0	0	0	0	0	112	
30-34	4	91	87	10	0	0	0	0	192	
35-39	5	33	58	66	10	1	0	0	173	
40-44	3	19	33	49	43	12	1	0	160	
45-49	0	8	9	24	22	37	16	0	116	
50-54	1	4	9	20	7	18	30	3	92	
55-59	1	3	13	6	7	2	4	1	37	
60-64	0	0	3	1	1	0	0	1	6	
65 +	0	0	0	0	0	0	0	0	0	
Total	29	263	230	176	90	70	51	5	914	

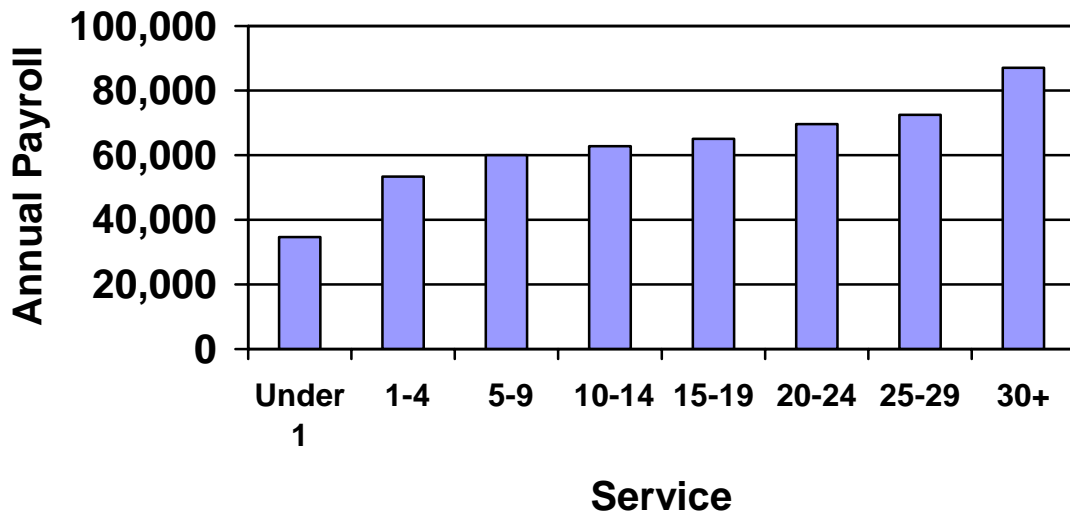
Active Safety Members by Age



Average Annual Full-Time Compensation for Safety Members by Age and Service as of June 30, 2004

Service >>	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Age									
Under									
25	33,223	48,697	0	0	0	0	0	0	46,316
25-29	34,914	53,853	58,932	0	0	0	0	0	52,809
30-34	31,555	54,547	60,755	62,124	0	0	0	0	57,276
35-39	39,779	52,085	59,341	64,292	62,362	85,852	0	0	59,608
40-44	33,307	56,682	59,070	61,328	66,013	69,627	65,286	0	61,692
45-49	0	49,497	58,187	61,416	64,955	70,698	76,983	0	66,122
50-54	30,394	48,659	56,815	61,783	70,553	67,011	70,343	73,639	65,253
55-59	31,902	50,942	64,933	64,973	59,974	64,149	72,517	71,339	62,925
60-64	0	0	59,286	73,034	53,856	0	0	142,675	74,570
65 +	0	0	0	0	0	0	0	0	0
Total	34,630	53,399	59,976	62,740	65,097	69,596	72,498	86,986	59,899

Safety Member Pay by Service



K. Data Adjustments

The member data for the June 30, 2004 actuarial valuation was supplied by the FCERA Retirement Office. It was reviewed for reasonableness and consistency, but no audit was performed. Public Pension Professionals has relied upon the research efforts and knowledge of the Retirement Office staff in providing answers to many of our questions concerning the data.

The data provided is from two different sources this year. The first source, the main FCERA database, is the same database used to calculate benefit amounts for retiring members. The computer program used to extract actuarial valuation data from this database was new last year, and will need additional fine-tuning in the years to come. In addition, since the settlement benefits are so new, the current database is not yet fully structured to maintain data in the manner in which it will need to be stored in the future. The second source of data was the custodian, Fifth Third Bank, who provided files for those plan participants currently receiving benefit payments. Since the main database was not fully updated as of June 30, 2004, we combined and reconciled these multiple files ourselves.

Due to these and other imperfections in the data, Public Pension Professionals has made several modifications or adjustments to the data for the valuation. We are not aware of any errors or omissions in the data, as modified, that would have a significant effect on the results of our calculations.

Some of the most significant modifications, adjustments, and assumptions that were made include.

- **Part-time employees.** Retirement benefits are calculated on the basis of full-time equivalent pay. For part-time employees, the salary that is received for the valuation was the salary actually paid. In this valuation, we also received information on the portion of the period worked by the employee. Using this information, pay amounts were adjusted to full-time equivalent for all employees.
- **Annual Leave conversions to service.** This valuation takes into account the fact that members who entered the plan prior to December 13, 1998 may convert annual leave (in excess of the maximum cashable hours) to service under the retirement plan. Based upon an assumed accrual pattern of 30 hours per year of service for the Annual Leave Plan II (max 400 hours), and 60 hours per year of service for the New Annual Leave Plan (max 1100 hours), accrued leave in excess of each plan's cap was converted to service upon service retirement for members in either of these plans. Actual annual leave balances are not provided in the actuarial data. Membership in a particular leave plan is also not provided. The member's Entry Date was used to determine which leave accrual pattern should apply. All active members, both County and District, are assumed to participate in the leave plans.

- **.Compensation.** The valuation uses a pay rate and pay frequency provided by FCERA. The pay rate is the amount paid for the last pay period of the fiscal year. In addition to earnings, it may reflect additional compensated items such as vacation time, holidays, reimbursements, or allowances due to the employee. The pay rate is annualized based on the pay frequency that is either biweekly, monthly or semi-monthly. Actual annualized pensionable earnings are not available for the valuation.
- **Retiree Health Benefits.** The June 30, 2004 data provided by FCERA included health benefit amounts for the regular benefit as well as the benefit of \$3 per year of service provided under Section 9 of the Ventura Settlement to all retired Plan Members. This is the first year these amounts were provided to us; these amounts were estimated in the June 30, 2003 valuation.
- **Pending Refunds.** There were approximately 300 participants incorrectly coded by FCERA as active who were either waiting to receive a refund of their contributions, had received a refund, or in a few cases, were service retirees. They were valued as active in the June 30, 2003 valuation and have been corrected in the June 30, 2004 valuation.
- **Participants with a Status of Suspended.** There are a relatively small group of participants who have separated from service, left their money on deposit with FCERA, and not yet indicated to FCERA whether they wish to receive a refund or have their money remain on deposit. Until these participants indicate to FCERA how their contributions should be treated, FCERA codes these participants with a status of "suspended". For valuation purposes we treat those with at least 5 years of service as Deferred Vested and those with less than 5 years of service as Reciprocal with a deferred benefit.
- **Extra Help.** Employees with a classification of "extra help" are excluded from the valuation. These are members who have separated from normal full-time service and have returned on a temporary basis working fewer than 900 hours per year.
- **Leave of Absence.** Participants who have been on a Leave of Absence for at least two consecutive valuation years are treated as pending withdrawals. During the first year a participant is on a leave of absence, he or she is treated as an active member in the valuation.
- **Reconciliation of multiple files for Retirees and Beneficiaries.** To the extent that membership data and date of birth information was available from files extracted from the main FCERA database, this information was used for all participants. If any of these fields were blank for a retiree or beneficiary, the data was supplemented by data from the Fifth Third files. The retirement date from Fifth Third was used in all cases for retirees and beneficiaries, due to a problem with incorrect extraction of retirement dates from the FCERA database.
- **Retiree Option.** If the data for the retirement benefit option chosen by a retiree was missing from the files that were provided to us, we assumed that the "Unmodified" benefit option was chosen and that the member was married. For

these same records, the beneficiary data was populated by using the valuation assumptions.

Public Pension Professionals gratefully acknowledges the Retirement Office staff for their hard work and knowledge in providing information on all the data issues that were raised. The FCERA Retirement Office staff is aware of most, if not all, of the data imperfections, and continues to work to improve upon the data used in the actuarial valuations.

L. Actuarial Certification

This valuation has been conducted in accordance with generally accepted actuarial principles and practices.

The actuarial assumptions employed in the development of the recommended contribution rates were selected to be individually reasonable (taking into account the experience of the Plan and reasonable expectations) and which, in combination, offer the actuary's best estimate of anticipated experience under the Plan.



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Public Pension Professionals, Inc.

June 2005