



Public Pension
Professionals, Inc.

Fresno County Employees' Retirement Association

Actuarial Valuation as of June 30, 2002



May 7, 2003



Actuaries you can understand

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This report presents the results of the June 30, 2002 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, 2002 **June 30, 2000**

Recommended Contribution Rates – Regular Benefit

General	12.72%	9.32%
Safety	18.00%	24.88%
Total Plan	13.55%	11.91%

Recommended Contribution Rates – Settlement Benefit

General	5.64%	Included above
Safety	4.63%	Included above
Total Plan	5.48%	Included above

The contributions for Settlement Benefits for the coming year will be paid from Undistributed Earnings. All Undistributed Earnings as of June 30, 2002 will be allocated to pay for unfunded Settlement liabilities.

Funded Status – Valuation Benefits

Actuarial Accrued Liability	\$1,932.3	\$ 1,541.0
Actuarial Value of Assets	\$1,674.9	\$ 1,578.2
UAAL	\$257.4	(\$ 37.2)
Funded Percentage	86.7%	102.4%

Key Assumptions

Interest Rate	8.16%	8.42%
Average Salary Increase	5.1%	5.6%
Inflation	4.0%	4.5%



Section

2

Board Summary

This actuarial valuation report has been prepared primarily to review FCERA's funded status and determine the contributions required of the Plan Members and Participating Employers. This has been done every two years 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.

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 Agreement. 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. Changes since Prior Valuation

This is the first valuation performed for FCERA by Public Pension Professionals. As part of the valuation process, we worked with the Actuarial Committee to review some of the assumptions and methodologies used by the prior actuary and have recommended several changes.

Asset Smoothing Methodology

For most public retirement systems, fluctuations in the market value of plan assets are often the cause of the greatest year-to-year volatility in employer contribution rates. In past valuations, FCERA has employed an asset smoothing method in an effort to dampen that volatility. The method used by FCERA spreads the difference between the actual investment return achieved and the assumed investment return over a five-year period. This is generally a good approach to limiting contribution rate volatility, and we recommend keeping that approach in place.

The exact method employed by the prior actuary has a potential to create other problems. Under certain market conditions, the Actuarial Value of Assets calculated using the smoothing process could vary significantly from the actual market value of assets. This may hurt the credibility of the contribution calculation. In addition, the smoothing method used in the valuation process is different from the smoothing method used by FCERA for interest crediting purposes. This adds confusion to both the valuation process and the interest crediting process.

With those issues in mind, we recommend some refinements to the asset smoothing methodology used to calculate the Actuarial Value of Assets.

- **Calculation of Expected Return on Plan Assets.** This value would be calculated on a semi-annual basis and would represent the expected return on the market value of assets. In that calculation, we would use the assumed interest rate in effect for the period being reviewed, so the expected return would not vary if the investment return assumption were changed in a later period.
- **Limitations on Actuarial Value.** Under most circumstances, we begin to feel uncomfortable with our smoothing methodology if the Actuarial Value of Assets begins to vary significantly from the Market Value of Assets. We recommend setting a 20% corridor around the Market Value of Assets. If the Actuarial Value of Assets is within that corridor, it would be used. If the Actuarial Value of Assets varies more than 20% from the Market Value of Assets, the Actuarial Value of Assets would be limited so that it is no less than 80% of the Market Value of Assets and no greater than 120% of the Market Value of Assets.

Details regarding the proposed asset smoothing method are shown in the Technical Information section of this report.

Demographic Assumptions

Valuation assumptions are supposed to be the Trustees' best guess regarding their long-term expectations of future experience. When assumptions are accurate, they help add stability to contribution rates and give an accurate picture of the costs related to plan changes.

Demographic assumptions are the assumptions related to Plan Members. They answer questions like:

- How long is the Plan Member expected to continue working at the County?
- How many Plan Members are likely to become disabled during the year?
- How long is a Plan Member expected to live after retirement?
- When a Plan Member leaves employment, what is the likelihood that he will take a refund of his contributions and forfeit other benefits?

The selection of demographic assumptions is often based on a review of plan experience. We did not perform a review of plan experience this year, and are scheduled to perform such an analysis with the next valuation. As such, we recommend keeping most demographic assumptions in place for this valuation until we have had the opportunity to see how they match with actual plan experience.

We have suggested a few refinements in the demographic assumptions as a result of our review of Plan data.

- ◆ **Service for deferred vested members.** In previous valuations, the actuary calculated service as elapsed time from date of entry to termination and ignored any calculated service amounts provided by the Retirement Office, which took into account breaks in service, service buy-backs, or part-time accruals of service. After reviewing a sample of the service calculations prepared by the Retirement Office, we determined that this data was generally reliable and calculated benefits based on the service provided.
- ◆ **Service for active members.** In previous valuations, the actuary calculated service as elapsed time from date of entry to the valuation date and ignored any calculated service amounts provided by the Retirement Office, which took into account breaks in service, service buy-backs, or part-time accruals of service. After reviewing a sample of the service calculations prepared by the Retirement Office, we determined that this data was generally reliable and calculated benefits based on the service provided.
- ◆ **Annual Leave conversions to service.** The 2002 valuation is the first valuation which 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. We used the member's Entry Date to determine which leave accrual pattern should apply. All active members, both County and District, are assumed to participate in the leave plans.

- ◆ **Benefit Eligibility.** In previous valuations, the prior actuary recognized that some Plan Members had reciprocal service with other California agencies. This meant that these employees could become eligible to receive retirement benefits from FCERA before earning the minimum required service from the County. With this in mind, the prior actuary decided not to consider service in determining when an employee might leave employment and begin to take a benefit. We had little evidence that many employees come to the County with reciprocal service. We believe that focusing on the significant majority of the membership provides a better picture of future expectations than focusing on the exceptions. As such, we recommend considering benefit eligibility in employing our demographic decrements. This would, for example, mean that for valuation purposes, we would assume that members who terminate before they are eligible for a retirement benefit would all take a refund of their contributions and that any member who is eligible for retirement would take a retirement benefit.

Details regarding demographic assumptions are included in the Technical Information section of this report.

Economic Assumptions

The assumptions that have the greatest impact on contribution rates and funded position are the Plan's economic assumptions. These assumptions tend to be driven more by outside events than by plan experience.

After a review of economic experience and the Plan's asset allocation, we recommend the following changes in Plan assumptions for the current valuation.

- ◆ **Inflation Assumption.** We recommend decreasing the assumed rate of future inflation from 4.50% per year to 4.00% per year.
- ◆ **Salary Increase Assumption.** The salary increase assumption is made up of two components: an inflation component and a merit and longevity component. We will review the merit and longevity component during next year's experience analysis, and will not recommend any changes in that component at this time. The inflation component will be lowered to be consistent with the overall inflation assumption. This will result in lower expected salary increases for all Plan Members.

- ◆ **Nominal Investment Return.** In line with the reduction in expected inflation, we recommend that the expected nominal rate of investment return be reduced. In the prior valuation, the expected rate was 4.125% for each six-month interest crediting period. We recommend that this be reduced to 4.00% for each six-month interest crediting period. This would reduce the nominal investment return assumption from 8.42% per year to 8.16% per year.

Details related to the economic assumptions are included in the Technical Information section of this report.

Member Contribution Rates

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. In this valuation, the 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).

Details regarding Member Contribution rates for General and Safety members are included in the Technical Information section of this report.

Amortization of Unfunded Actuarial Accrued Liability

In the normal course of operating a retirement plan, there are a number of reasons why the plan may be somewhere 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 happened two years ago when they changed the investment return, inflation and demographic assumptions.
- *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 from 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.

Using the approach employed in the prior valuation, FCERA would amortize any Unfunded Actuarial Accrued Liability (UAAL) over eight years. This is a very short period and adds undue volatility to employer contribution rates on a year-to-year basis.

We recommend changing the amortization approach so that changes in UAAL due to Plan Amendments are amortized as a level percentage of payroll over a thirty-year period. All other changes in UAAL would be amortized as a level percentage of payroll over a fifteen-year period.

Ventura Settlement Agreement Funding

Additional benefits are provided to current and future FCERA members under the Ventura Settlement Agreement. Section 6 of the Agreement states that these additional benefits are to be funded from Undistributed Earnings when those earnings are available, and by Plan Members and Employers when those earnings are not available. Unfortunately, the Ventura Settlement Agreement does not provide

details related to how that funding is to be accomplished and how to determine whether the appropriate reserves are available.

Questions were sent to the attorneys for the parties in the Settlement and initial responses were received. The process of working through the details related to the Settlement Agreement is expected to take months. In an effort to determine contributions for the coming year, we developed an interpretation of the funding clause of the Ventura Settlement Agreement. This interpretation is based on our best guess related to the intent of the parties and long-term actuarial soundness. We recommend that the Board adopt this approach on a temporary basis, until the parties to the Settlement can better define the long-term implementation approach intended in the Agreement.

Our recommended approach consists of four stages:

- **Current Year Funding.** We begin by calculating the contributions required from Plan Members and Employers to pay for the additional benefits provided under the Ventura Settlement Agreement. For that purpose, we take into account any reserves that have been set aside to pay for these benefits. The initial Unfunded Actuarial Accrued Liability (UAAL) is amortized as a level percentage of payroll over a thirty-year period beginning with this valuation. Any UAAL appearing in future years will be amortized over a fifteen-year period from the creation of that UAAL.

To the extent that there are any Undistributed Earnings, they are used to pay for these contributions in the following order:

- \$15 Retiree Benefits (Section 8).
 - Supplemental Benefits (Section 6) proportionally between employer and member contributions.
 - Retiree Health Benefits (Section 9) provided under the Agreement. These would first be used to pay for current year contributions for the initial \$3 per year of service benefit, then any other benefits in existence at the time of the valuation in the order in which those benefits were established.
- **Unfunded Projected Liability.** We will next calculate whether there are sufficient reserves set aside to pay for all Settlement Benefits expected to be paid for all current Plan Members at the time of the valuation for the remainder of their lives and the lives of their beneficiaries. To the extent that reserves fall short of that target, there is an Unfunded Projected Liability. Any Undistributed Earnings that are still available after paying for any Current Year Funding will be used to fund Unfunded Projected Liability in the following order.
 - \$15 Retiree Benefits (Section 8).

- Retiree Health Benefits (Section 9) provided under the Agreement. These would first be used to pay for Unfunded Projected Liability for the initial \$3 per year of service benefit, then any other benefits in existence at the time of the valuation in the order in which those benefits were established.
- Supplemental Benefits (Section 6). The reserves will first be used to make sure that benefits for any people retired at the time of the valuation are funded. If there are still Undistributed Earnings available, they will be used to eliminate any other Unfunded Projected Liability for this benefit.
- **New Retiree Health Benefits.** If any Undistributed Earnings remain available after the funding of all Current Year payments and all Unfunded Projected Liability for the Settlement Benefits, the remaining reserves will be used to determine whether any additional Retiree Health Benefits will be created in accordance with the provisions under Section 9 of the Ventura Settlement Agreement. If any of these benefits are created, reserves sufficient to fund the new benefits will be transferred to the appropriate reserve to the extent that those earnings are available.
- **Other Uses.** Once all Settlement Benefits have been funded on this basis, the FCERA Board can determine how to use any remaining Undistributed Earnings in accordance with the provisions of the County Employees' Law of 1937 (1937 Act).

We would like to emphasize that this is intended to be a temporary funding approach based on our best guess related to the intent of the parties involved in the Ventura Settlement Agreement and sound actuarial funding practices.

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

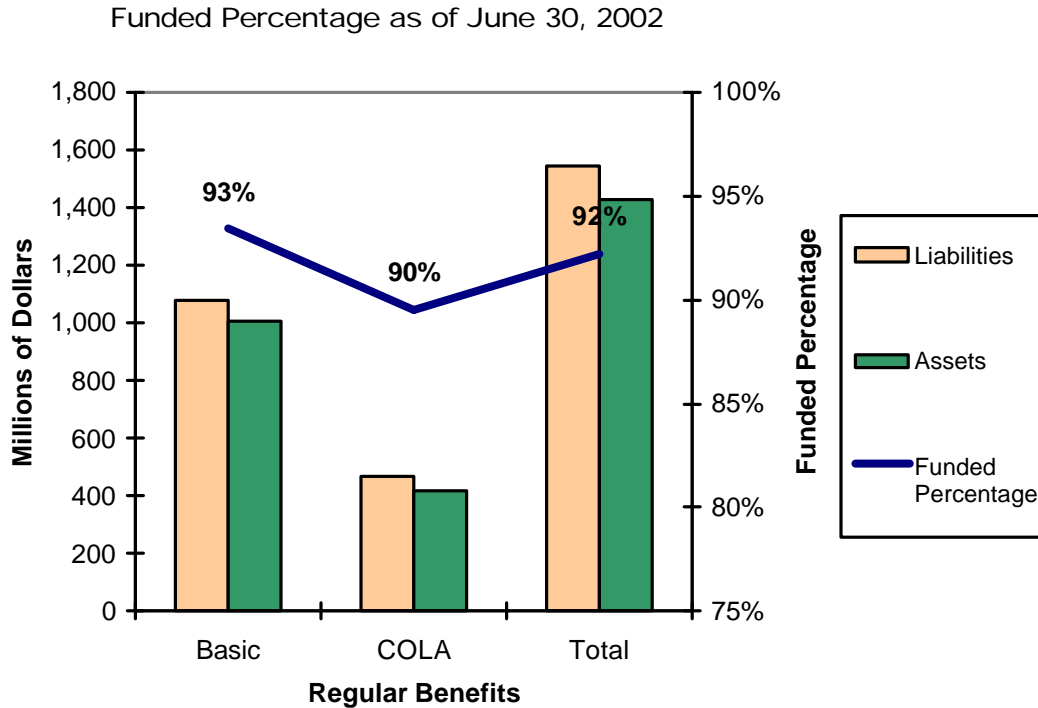
The Actuarial Value of Assets would be equal to the Actuarial Accrued Liability. It is the value often used as a funding target.

Current Funded Position

The following table shows the Plan's funded percentage for Regular Benefits is 92.2%. It is calculated by dividing the Actuarial Value of Assets by the Actuarial Accrued Liability.

Dollar amounts in Millions	Basic Benefits	COLA Benefits	All Regular Benefits
Actuarial Accrued Liability	\$ 1,078.5	\$ 468.1	\$ 1,546.7
Actuarial Value of Assets	<u>\$ 1,007.2</u>	<u>\$ 419.0</u>	<u>\$ 1,426.2</u>
Unfunded Actuarial Accrued Liability	\$ 71.3	\$ 49.2	\$ 120.5
Funded Percentage	93.4%	89.5%	92.2%





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 period. Because of this, the funding for Settlement Benefits is set up differently than funding for Regular Benefits. Undistributed Earnings become the primary source of funding for these benefits. For this reason, the long-term funding target for Settlement Benefits is the Present Value of Benefits.

The **Present Value of Benefits (PVB)** represents the amount of money, at the valuation date, which would be sufficient to pay for all Settlement Benefits for all current Plan Members if all plan assumptions are met in future years. In other words,

- If Plan Assets are equal to the Present Value of Benefits, and
- If current plan benefits remain in place, and

- If there are no new Plan Members, and
- If plan experience in all future years matches the assumptions, then

There will be enough money to pay for all promised benefits for all Plan Members and their beneficiaries for the rest of their lives without another dollar being contributed to the Retirement System by Plan Members, the County, or other Participating Employers.

Primary Funding Position

As the following table shows, Settlement Benefits were only 50.2% funded on this basis. This was calculated by dividing the Actuarial Value of Assets by the Present Value of Benefits. This means that FCERA will be required to allocate Undistributed Earnings to Settlement Reserves to help pay for these benefits.

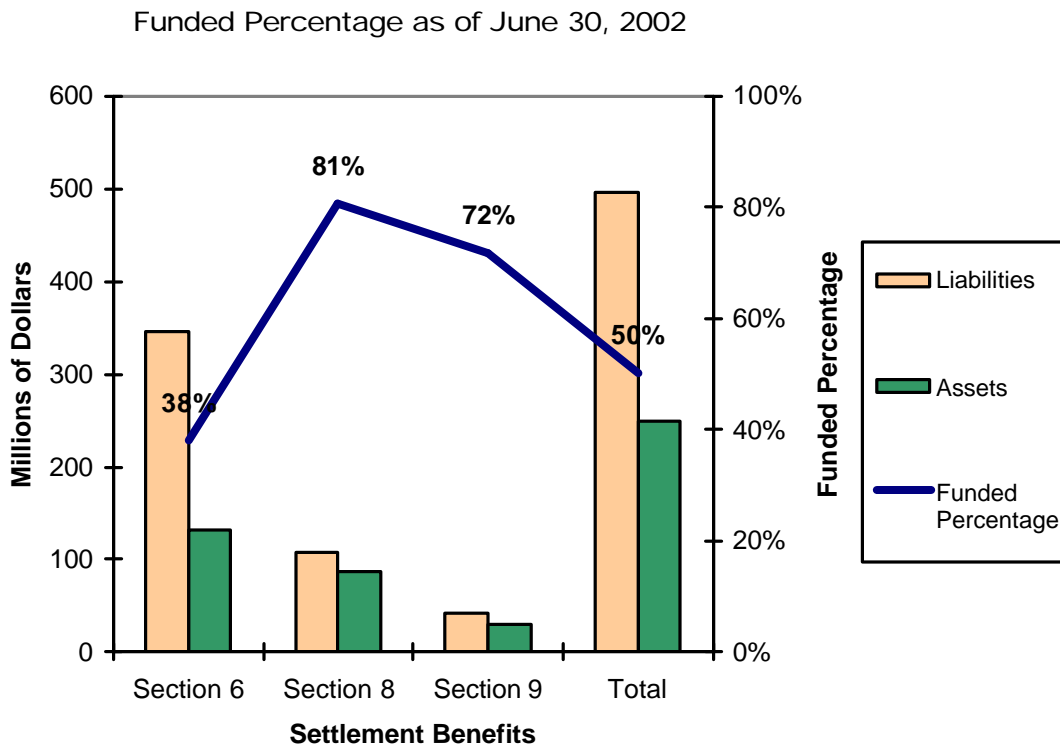
Dollar amounts in Millions	Supplemental (Section 6)	\$15 Retiree (Section 8)	Health (Section 9)	All Settlement Benefits
Present Value of Benefits	\$ 346.2	\$ 107.9	\$ 41.7	\$ 495.8
Actuarial Value of Assets	<u>\$ 131.6</u>	<u>\$ 87.2</u>	<u>\$ 30.0</u>	<u>\$ 248.7</u>
Unfunded Projected Liability	\$ 214.6	\$ 20.8	\$ 11.7	\$ 247.1
Funded Percentage	38.0%	80.8%	71.9%	50.2%

The funded position has decreased from the prior valuation for several reasons, these include:

- **Investment Losses.** Investment performance for FCERA, like almost all public retirement funds across the United States, was very weak during the two-year period between valuations with approximately \$100 million in investment losses. Even though the losses were somewhat mitigated by the use of an asset smoothing methodology, the losses were shared by all reserves, including those for Settlement Benefits.
- **Assumption Changes.** During our initial review of the valuation process, we recommended some basic changes in the Plan's economic assumptions and

some minor fine-tuning of the Plan's demographic assumptions. Although these assumptions changes had very little impact in the aggregate, they did cause the Plan's liabilities to increase slightly.

- Final Compensation Calculation.** The calculation of final compensation is a critical component in determining plan benefits. For several years, FCERA has been calculating final compensation in a manner different from the approach assumed in the models used by the prior actuary. To date, that has only increased liabilities slightly. The use of that methodology is currently under review by the Retirement Board, and we have calculated liabilities in this valuation as if the practice were stopped at the valuation date. If that approach were to continue, the funded position would continue to decrease in future valuations, and contribution rates would need to be adjusted accordingly.



After Undistributed Earnings are allocated to these reserves, the overall funded percentage for Settlement Benefits increases to 64%, with the \$15 Retiree Benefits and the Retiree Health Benefits being 100% funded on this basis.

Secondary Funding Position

If the reserves set aside to pay for Settlement Benefits drop and there are no assets available in Undistributed Earnings, Plan Members, the County and other Participating Employers will be required to make contributions. Because this is more of a short-term concern, we use a different measure of funded position to determine when contributions may be required. This second measure of the funded position of Settlement Benefits uses the Actuarial Accrued Liability as a target, just as we did for Regular Benefits.

As the following table shows, Settlement Benefits were 64.5% funded on this short-term basis. This funded percentage was calculated by dividing the Actuarial Value of Assets by the Actuarial Accrued Liability. This means that if Undistributed Earnings were not available, both Member and Employer contributions for Settlement Benefits would have been required for the coming year.

Dollar amounts in Millions	Supplemental (Section 6)	\$15 Retiree (Section 8)	Health (Section 9)	All Settlement Benefits
Actuarial Accrued Liability	\$ 242.3	\$ 107.9	\$ 35.4	\$ 385.7
Actuarial Value of Assets	<u>\$ 131.6</u>	<u>\$ 87.2</u>	<u>\$ 30.0</u>	<u>\$ 248.7</u>
Unfunded Actuarial Accrued Liability	\$ 110.8	\$ 20.8	\$ 5.4	\$ 136.9
Funded Percentage	54.3%	80.8%	84.8%	64.5%

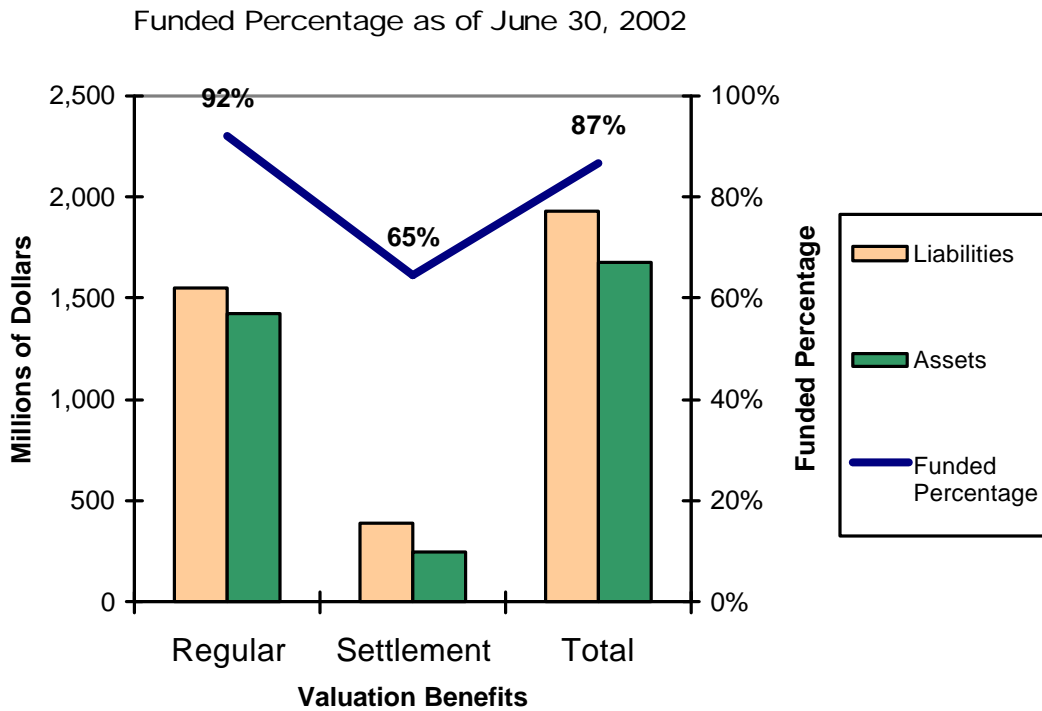
Funded Position – All Valuation Benefits

When we combine the Regular Benefits and the Settlement Benefits, we get a measure of the funded position of all benefits that are guaranteed by the County and other Participating Employers. Prior to the transfer of Undistributed Earnings, the funded percentage for FCERA is 86.7%, as shown in the table below.



Dollar amounts in Millions	All Regular Benefits	All Settlement Benefits	All Valuation Benefits
Actuarial Accrued Liability	\$ 1,546.7	\$ 385.7	\$ 1,932.3
Actuarial Value of Assets	<u>\$ 1,426.2</u>	<u>\$ 248.7</u>	<u>\$ 1,674.9</u>
Unfunded Actuarial Accrued Liability	\$ 120.5	\$ 136.9	\$ 257.4
Funded Percentage	92.2%	64.5%	86.7%

The overall funded percentage for Valuation Benefits would increase to 90% if the Undistributed Earnings were transferred to the Settlement Reserves.



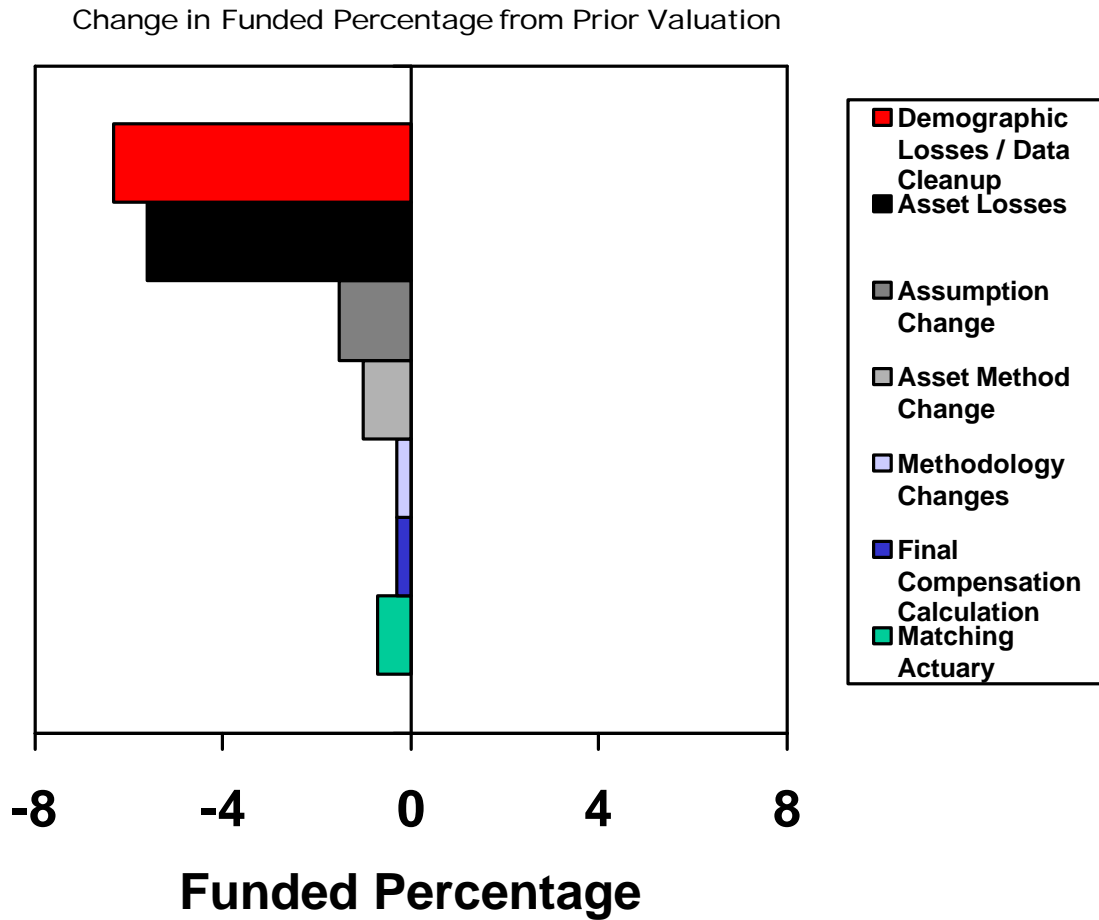
The funded percentage for Valuation Benefits decreased from 102.4% in the June 30, 2000 actuarial valuation to 86.7% as of June 30, 2002.

Dollar amounts in Millions	June 30, 2000	June 30, 2002
Actuarial Accrued Liability	\$ 1,541.0	\$ 1,932.3
Actuarial Value of Assets	<u>\$ 1,578.2</u>	<u>\$ 1,674.9</u>
Unfunded Actuarial Accrued Liability	(\$ 37.2)	\$ 257.4
Funded Percentage	102.4%	86.7%

This decrease can be roughly attributed to the following changes:

- **Matching Prior Actuary.** Differences between actuarial software and programming reduced the funded percentage by 0.7%.
- **Final Compensation Calculation.** Some Plan Members who retired prior to June 30, 2002 received a higher retirement benefits than anticipated in the prior valuation due to the use of non-consecutive pay periods in the determination of their final compensation. Since this procedure is currently under review, we have made no projection that it would continue in future years. The funded percentage decreased by approximately 0.3% due to the additional benefits paid, or expected to be paid due to the non-consecutive compensation calculation to those who retired prior to June 30, 2002.
- **Demographic Assumption Changes.** Changes in the demographic assumptions and funding methodology decreased the funded percentage by 0.3%.
- **Asset Method Change.** The refinement in the asset smoothing methodology decreased the funded percentage by approximately 1.0%.
- **Economic Assumption Changes.** Changes in the economic assumptions decreased the funded percentage by approximately 1.5%.
- **Investment Losses.** Investment returns less than expected during the two-year period reduced the funded percentage by approximately 5.6%
- **Normal Operation and Other Losses.** Normal operation of the plan and losses due to data cleanup and other Plan experience different than expected reduced the funded percentage by approximately 6.3% over the two-year period between valuations.

These changes are summarized in the following graph.



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	\$ 26.5	\$ 77.0	\$ 103.5
Actuarial Value of Assets	<u>\$ 6.4</u>	<u>\$ 57.4</u>	<u>\$ 63.8</u>
Unfunded Projected Liability	\$ 20.1	\$ 19.6	\$ 39.7
Funded Percentage	24.0%	74.5%	61.6%

The funded percentage of Non-Valuation Benefits has decreased significantly from the percentage shown in the June 30, 2000 valuation, primarily for the following reasons:

- **Assumption Change.** In this valuation, we have recommended several changes in economic assumptions. While the overall impact for the fund may not be significant, these assumption changes tended to increase the liabilities associated with Non-Valuation Benefits.
- **Inclusion of Future Purchasing Power Recipients.** In the June 30, 2000 valuation, the prior actuary only included liabilities for Purchasing Power Benefits for retirees who were receiving those benefits at the time of the valuation. The liabilities above include not only those who are receiving Purchasing Power Benefits at the time of this valuation, but also those that are expected to receive these benefits in future years.
- **Investment Losses.** During the two-year period since the last valuation, investment returns have not matched the Plan's assumed rate of investment return. These losses have been shared by all reserves, including those for Non-Valuation Benefits.
- **Lack of Funding.** Since the June 30, 2000 actuarial valuation, a significant amount of Undistributed Earnings was set aside to fund Settlement Benefits. This did not leave additional funding to strengthen the reserves for Non-Valuation Benefits.

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 somewhere 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 happened two years ago when they changed the investment return, inflation and demographic assumptions.
- **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 from 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.

Changes in UAAL due to Plan Amendments are amortized as a level percentage of payroll over a thirty-year period. All other changes are amortized as a level percentage of payroll over a fifteen-year period.

Contribution Rates – Regular Benefits

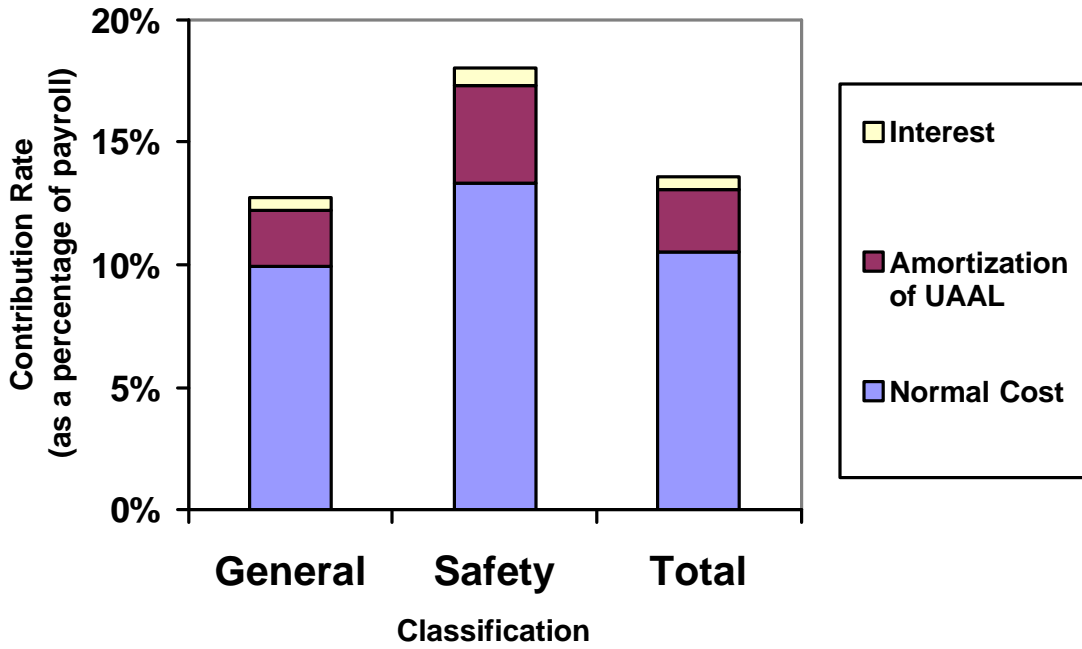
As we mentioned earlier, Regular Benefits are funded separately from Settlement Benefits. Regular Benefits are those benefits that were in effect prior to the Ventura Settlement. They are funded on a more traditional basis.

Current Contribution Rates

Regular Contributions for the coming year will be 13.55% of pay, or approximately \$46 million. These costs are split between General and Safety as follows:

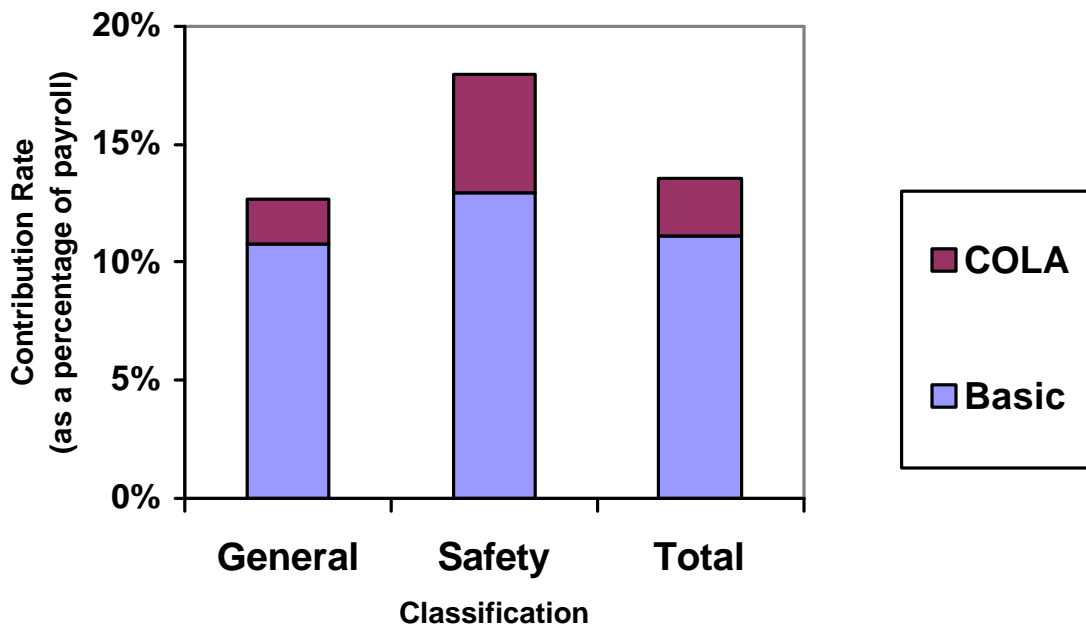
Dollar amounts in Millions	General	Safety	Total
Normal Cost	9.96%	13.33%	10.49%
Amortization of UAAL	2.27%	3.98%	2.54%
Interest	<u>0.49%</u>	<u>0.69%</u>	<u>0.52%</u>
Total Contribution Rate	12.72%	18.00%	13.55%
Dollar Amount of Contribution (in Millions)	\$ 36.4	\$ 9.6	\$ 46.0

Development of Contribution Rate for Regular Benefits



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

Allocation of Contribution Rates for Regular Benefits



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.

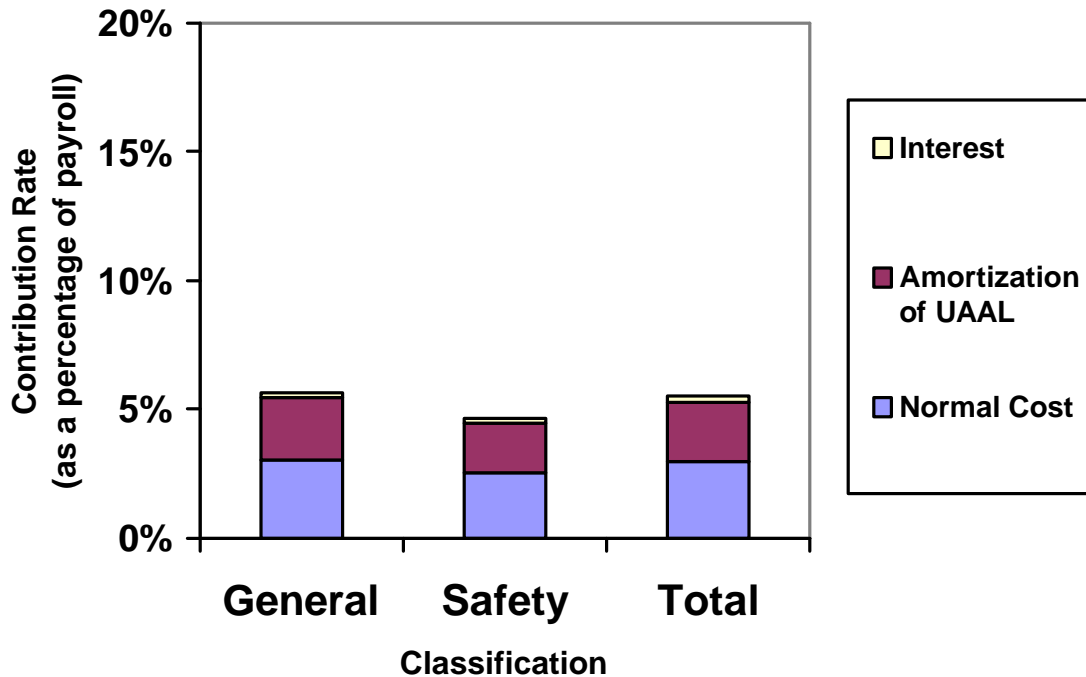
These contributions are a combination of a Normal Cost component and an amortization of any Unfunded Actuarial Accrued Liability for Settlement Benefits.

Current Contribution Rates

Settlement Contributions for the coming year are 5.48% of pay, or approximately \$19 million. These costs are split between General and Safety as follows:

Dollar amounts in Millions	General	Safety	Total
Normal Cost	3.02%	2.54%	2.94%
Amortization of UAAL	2.40%	1.91%	2.33%
Interest	<u>0.22%</u>	<u>0.18%</u>	<u>0.21%</u>
Total Contribution Rate	5.64%	4.63%	5.48%
Dollar Amount of Contribution (in Millions)	\$ 16.2	\$ 2.5	\$ 18.6

Development of Contribution Rate for Settlement Benefits



These contributions should be paid from Undistributed Earnings that were available as of June 30, 2002 in accordance with the Ventura Settlement Agreement. This is discussed in more detail later in this report.

Comparison with Prior Valuation

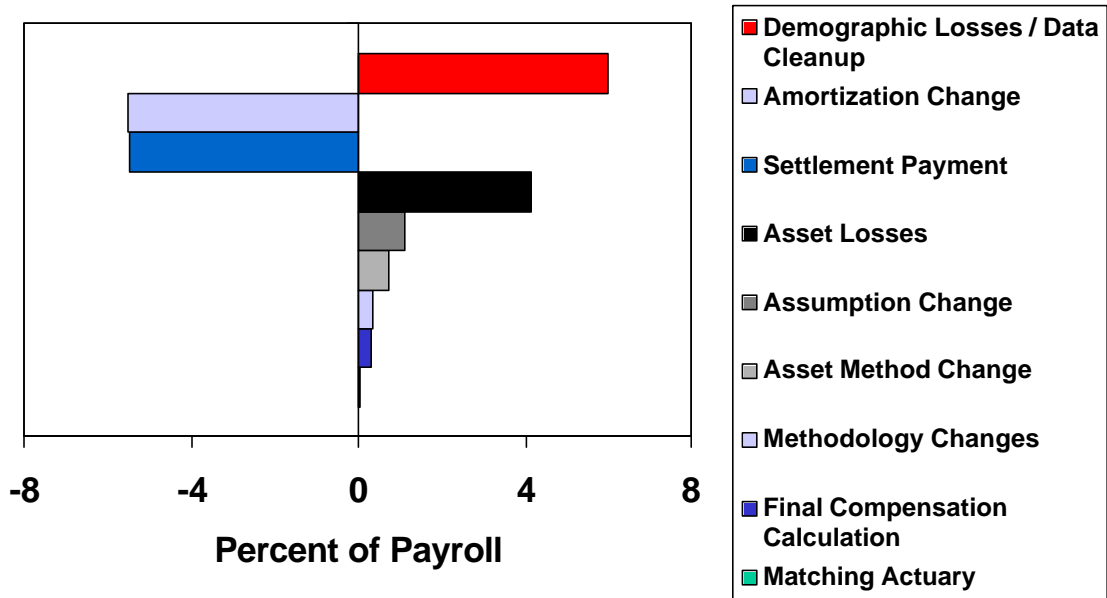
Overall, the employer contribution has increased from the prior valuation from 11.91% to 13.55%. Some of the reasons for the change in contribution rates include:

- Investment Losses.** Investment performance for FCERA, like almost all public retirement funds across the United States, was very weak during the two-year period between valuations with approximately \$100 million in investment losses. Even though the losses were somewhat mitigated by the use of an asset smoothing methodology, it caused contribution rates to increase by approximately 4.13% of payroll.
- Assumption Changes.** During our initial review of the valuation process, we recommended some basic changes in the Plan's economic assumptions and some minor fine-tuning of the Plan's demographic assumptions. Although these assumptions changes had very little impact in the aggregate, they did cause the Plan's contribution rate to increase by approximately 1.10% of payroll.

- **Methodology Changes.** There were some significant changes between the funding methodology used in the prior valuation and the methodology recommended in this valuation. These included changes such as:
 - **Amortization Period.** As we mentioned earlier in this section, the Unfunded Actuarial Accrued Liability is amortized as a level percentage of payroll. As the amortization period decreases, contribution rates become more volatile from year-to-year. We recommended increasing the amortization period. Initially, it will be 15 years for Regular Benefits and 30 years for Settlement Benefits. The lengthening of the amortization period reduced contributions by approximately 5.53% of payroll.
 - **Settlement Contributions.** During the prior valuation, Plan Members and Employers were charged for additional costs related to the Ventura Settlement that were not paid from Undistributed Earnings. After discussions with the Actuarial Committee and inquiries to attorneys representing the parties in the Ventura Settlement Agreement, we have recommended a change in methodology that uses Undistributed Earnings, when available, to pay contributions for Settlement Benefits. This change in methodology reduced contributions rates by approximately 5.48% of payroll during this period.
 - **Asset Smoothing Method.** The asset smoothing method was refined to allow for semi-annual crediting and the limit the amount that the value could vary from the market value at any time. This refinement increased the contribution rate by approximately 0.73% of payroll.
- **Final Compensation Calculation.** The calculation of final compensation is a critical component in determining plan benefits. For several years, FCERA has been calculating final compensation in a manner different from the approach assumed in the models used by the prior actuary. To date, that has only increased liabilities slightly. The use of that methodology is currently under review by the Retirement Board, and we have calculated liabilities in this valuation as if the practice were stopped at the valuation date. Those liabilities increased contribution rates by 0.30% of payroll. If that approach were to continue, the funded position would continue to decrease in future valuations, and contribution rates would need to be adjusted accordingly.

These changes are summarized in the following graph.

Change in Contribution Rate from Prior Valuation



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. In this valuation, the 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

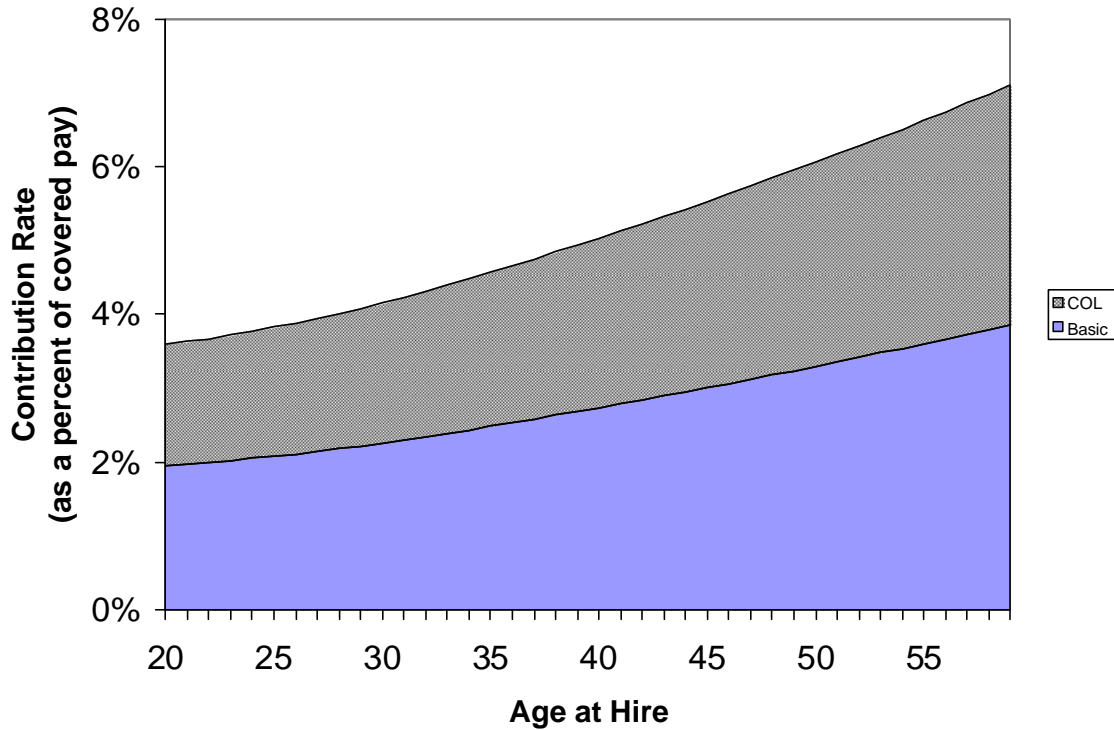
Since the prior valuation, there have been changes to the Basic, COL and Settlement Contribution Rates for General Members.

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 have changed slightly since the prior valuation due to changes in the recommended investment return assumption and salary increase assumption. 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 53% of Basic Contribution Rates in the June 30, 2000 actuarial valuation to 84% of Basic Contribution Rates in this valuation. In past years, COL contributions (for Plan Members and Employers) have been paid from Undistributed Earnings, but there do not appear to be any Undistributed Earnings available at this time to pay for these contributions. This will make the effective increase in COL Contributions felt by Plan Members even greater. This increase is due to a combination of an increase in COL liabilities resulting from the drop in the assumed investment return and a decrease in COL Reserves resulting from investment losses during the past two years. The COL 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 and the COL Contribution Rates. They will vary based on the Member's age at hire, and are shown in the graph below.

General Member Contribution Rates

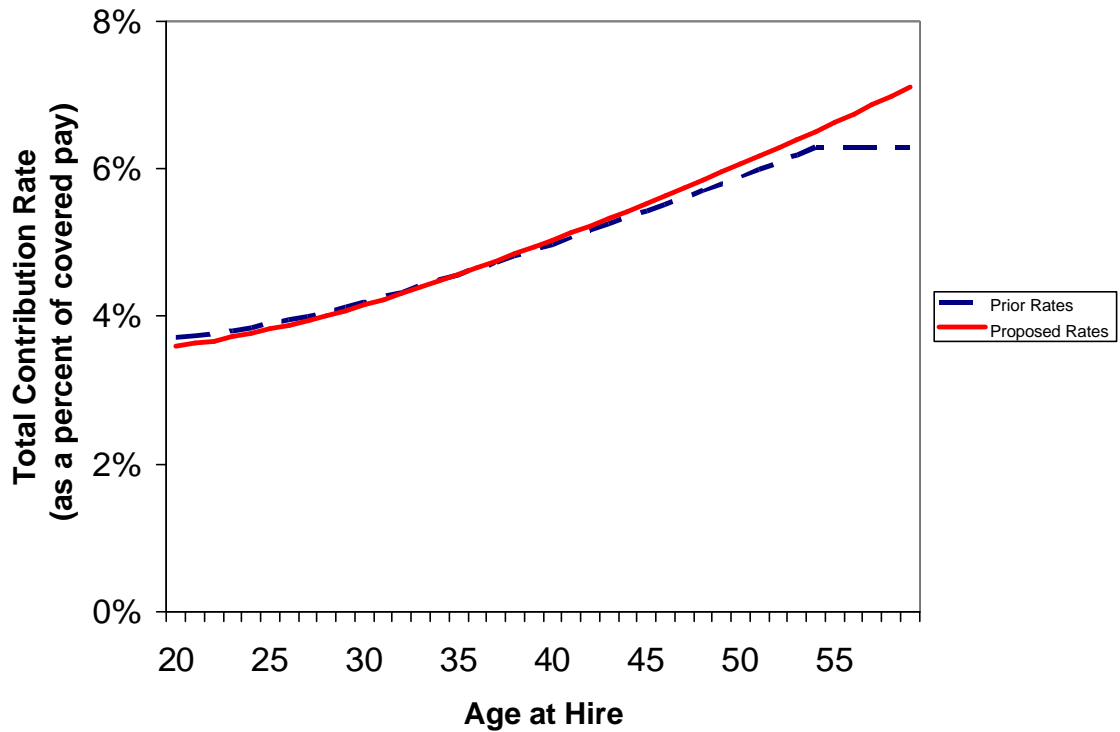


Settlement Contributions. Plan Members are asked to make additional contributions under Section 6 of the Ventura Settlement Agreement to help pay for the additional benefits provided under the Agreement when Undistributed Earnings are not available to pay for those benefits. Plan Members will not be asked to make Settlement Contributions in the coming year because there appear to be Undistributed Earnings available to make those payments. For this reason, we have not included Settlement Contributions in the graph above. The Settlement Contribution Rates for General Members are shown in Section F of the Technical Information portion of this report.

Comparison with Prior Contributions

The total contribution rates required of General Members will be similar to those that were required in the past year, as is shown in the following graph. This has occurred more by coincidence than by design. The contributions for the current year include Basic and COL Contributions. In past years, the contributions consisted of Basic and Settlement Contributions. Since the COL Contributions required for the coming year are approximately equal to the Settlement Contributions that had been required in the past, the total contribution is not changing significantly for most General Members.

General Member Contribution Rates



Safety Members

Current Year Contributions

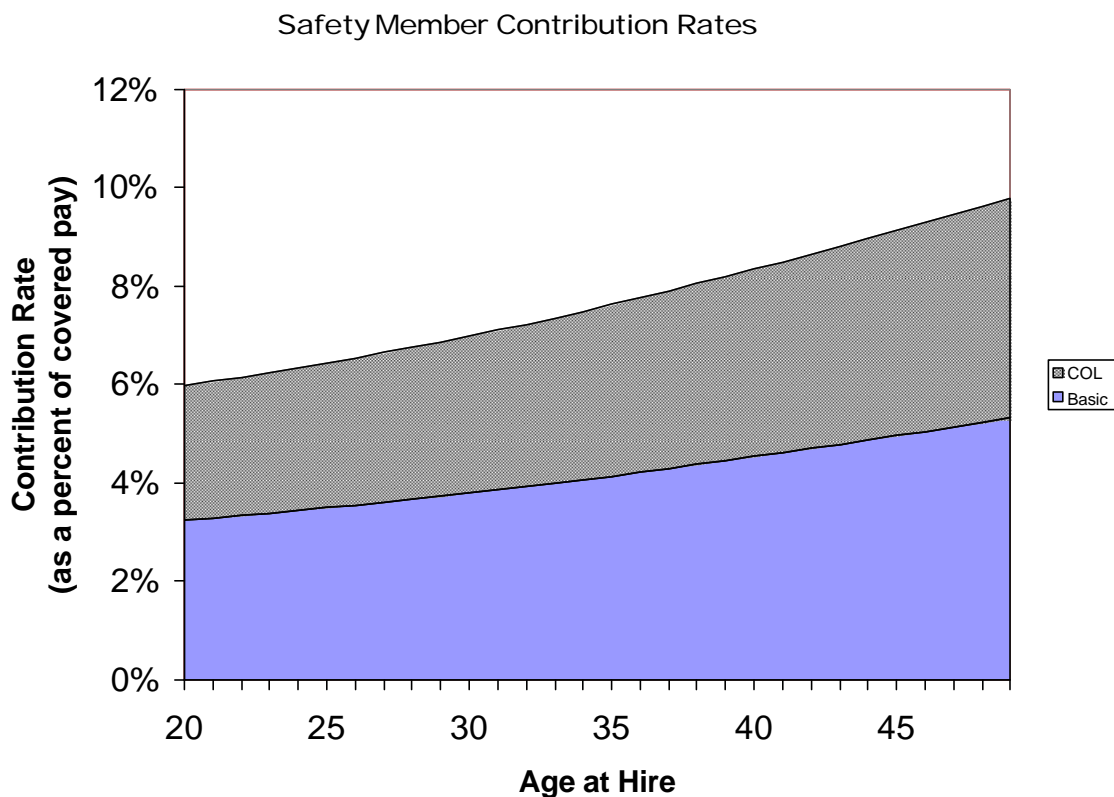
Since the prior valuation, there have been changes to the Basic, COL and Settlement Contribution Rates for Safety Members.

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 changed slightly since the prior valuation due to changes in the recommended investment return assumption and salary increase assumption. 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 53% of Basic Contribution Rates in the June 30, 2000 actuarial valuation to 84% of Basic Contribution Rates in this valuation. In past years, COL contributions (for Plan Members and Employers) have been paid from Undistributed Earnings, but there do

not appear to be any Undistributed Earnings available at this time to pay for these contributions. This will make the effective increase in COL Contributions felt by Plan Members even greater. This increase is due to a combination of an increase in COL liabilities resulting from the drop in the assumed investment return and a decrease in COL Reserves resulting from investment losses during the past two years. The COL Contribution Rates for Safety Members are shown in Section H of the Technical Information portion of this report.

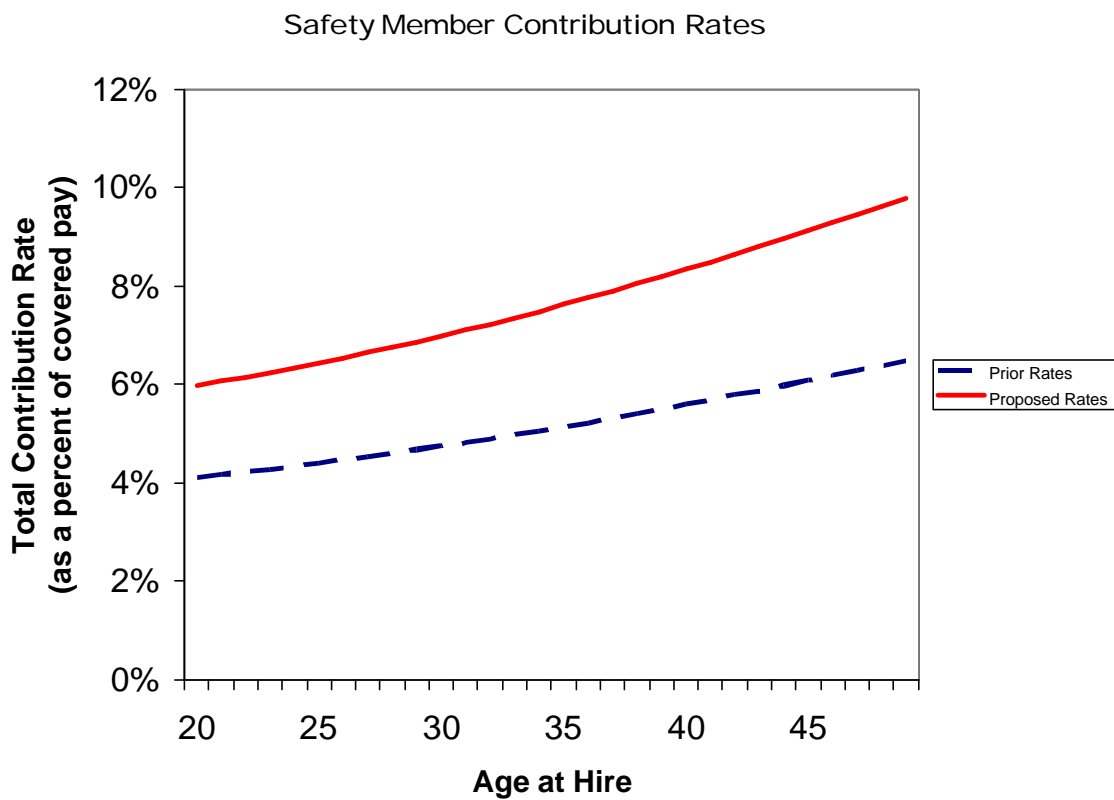
The contributions required from Safety Members for the coming year will be a combination of the Basic Contribution Rates and the COL Contribution Rates. They will vary based on the Member's age at hire, and are shown in the graph below.



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 not be asked to make Settlement Contributions in the coming year because there appear to be Undistributed Earnings available to make those payments. For this reason, we have not included Settlement Contributions in the graph above. The Settlement Contribution Rates for Safety Members are shown in Section H of the Technical Information portion of this report.

Comparison with Prior Contributions

These contributions are approximately 50% greater than those that were required in the past year, as is shown in the following graph. For Safety Members, the increase in the COL Contribution is greater than the additional Settlement Contribution they were paying in prior years. This is true even though Safety Members pay the same proportion of COL Contributions as General Members, because the additional contributions included in Assembly Bill 2063 were less of an increase for Safety Members than they would have been for General Members.



Section 3 Technical Information

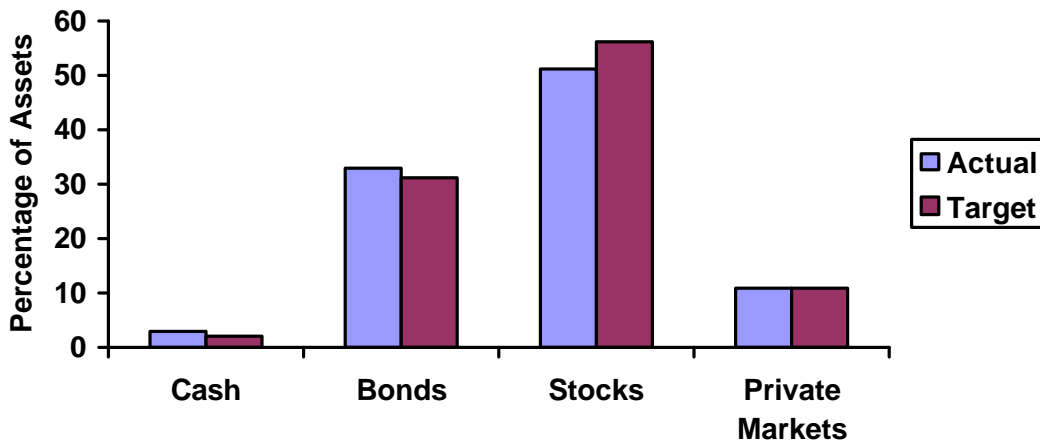
A. Asset Information

Net Plan Assets at Market Value as of June 30, 2002

	<i>Dollars (in 000's)</i>	<i>Actual %</i>	<i>Target %</i>
Cash and Cash Equivalents	54,413	3%	2%
Domestic Bonds	410,805	26%	28%
Global Bonds	116,945	7%	3%
Domestic Stocks	533,279	34%	38%
International Stocks	272,718	17%	18%
Private Markets	<u>177,382</u>	<u>11%</u>	<u>11%</u>
Net Assets	1,565,542	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)
12/31/1997	1,213,201,200.85	15,291,175.46	23,104,464.00	1,305,708,207.09	8.25%	48,894,925.91	92,507,006.24	43,612,080.33
6/30/1998	1,305,708,207.09	194,426,727.50	23,483,222.24	1,625,610,659.54	8.25%	56,249,026.09	319,902,452.45	263,653,426.36
12/31/1998	1,625,610,659.54	6,883,162.75	39,788,763.30	1,241,039,939.10	8.25%	65,062,439.82	(384,570,720.44)	(449,633,160.26)
6/30/1999	1,241,039,939.10	6,897,255.94	8,976,935.23	1,695,026,910.30	8.25%	50,136,430.92	453,986,971.20	403,850,540.28
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	145,516,394.38	77,440,505.42
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	(58,512,891.71)	(132,473,506.54)
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	(2,269,149.81)	(75,307,651.56)
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	(88,950,390.08)	(161,697,661.39)
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	(71,298,038.00)	(140,396,212.84)
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	(53,971,074.07)	(120,174,720.96)

Development of Market Stabilization Reserve

Six-Month Period Ended	Unexpected Gain (Loss)	Percent Recognized	Gain (Loss) Excluded
6/30/1998	92,709,921	90%	9,270,992
12/31/1998	(416,727,560)	80%	(83,345,512)
6/30/1999	405,930,220	70%	121,779,066
12/31/1999	100,118,247	60%	40,047,299
6/30/2000	(109,851,135)	50%	(54,925,567)
12/31/2000	(52,571,930)	40%	(31,543,158)
6/30/2001	(129,379,719)	30%	(90,565,803)
12/31/2001	(109,049,943)	20%	(87,239,954)
6/30/2002	(91,081,225)	10%	<u>(81,973,103)</u>
<i>Total</i>			<i>(258,495,740)</i>

Development of Actuarial Value of Assets

1. Market Value of Assets as June 30	\$ 1,565,541,761
2. Market Stabilization Reserve	<u>(258,495,740)</u>
3. Preliminary Actuarial Value: (1) – (2)	1,824,037,501
4. Corridor Around Market Value	
(a) Minimum = 80% of Market	1,252,433,409
(b) Maximum = 120% of Market	1,878,650,113
5. Gross Actuarial Value of Assets	1,824,037,501

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	135,808,746	134,057,509
General - COL	84,812,369	83,718,724
Safety - Basic	27,185,167	26,834,618
Safety - COL	15,875,449	15,670,737
General - Settlement	2,622,491	2,588,674
Safety - Settlement	303,944	300,025
<i>Current Service Reserve</i>		
General - Regular	290,069,076	286,328,671
Safety - Regular	78,846,525	77,829,809
General - Settlement	(25,021,225)	(24,698,579)
Safety - Settlement	(5,196,584)	(5,129,575)
<i>Annuity Pension Reserve</i>		
General - Regular	62,990,953	62,178,692
Safety - Regular	13,876,942	13,698,001
General - Settlement	387	382
Safety - Settlement	68	67
<i>Current Service Pension Reserve</i>		
General	320,814,461	316,677,598
Safety	86,578,549	85,462,129
<i>Supplemental Annuity Reserve</i>		
General	127,170,453	125,530,606
Safety	33,398,326	32,967,659
<i>Survivors' Death Benefit Reserve</i>	4,225,604	4,171,115
<i>Cost of Living Adjustment Reserve</i>	323,737,495	319,562,940
<i>Supplemental Cost of Living Reserve</i>	6,442,669	6,359,592
<i>Supplemental Benefit Reserve</i>	88,304,500	87,165,824
<i>Contingency Reserve</i>	15,655,418	15,453,543
<i>Retiree Health Insurance Reserve</i>	88,575,552	87,433,381
<i>Market Stabilization Account</i>	(282,323,737)	-
<i>Undistributed Earnings</i>	<u>70,788,163</u>	<u>69,875,359</u>
Total	1,565,541,761	1,824,037,501

Actuarial Adjustment Factor

1. Included Reserves	
a) Total Reserves	1,565,541,761
b) Market Stabilization Account	(282,323,737)
c) Included Reserves = (a) - (b)	1,847,865,498
2. Actuarial Value of Assets	1,824,037,501
3. Adjustment Factor = (2) / (1c)	0.9871051237

Allocation of Reserves for Valuation

Regular Valuation Reserves

	General	Safety	Total
<u>Basic</u>			
Member Accumulated Contributions	134,057,509	26,834,618	160,892,127
Current Service Reserve	286,328,671	77,829,809	364,158,480
Annuity Pension Reserve	62,178,692	13,698,001	75,876,693
Current Service Pension Reserve	316,677,598	85,462,129	402,139,727
Survivor's Death Benefit Reserve*	<u>3,323,539</u>	<u>847,576</u>	<u>4,171,115</u>
Total Basic	802,566,009	204,672,133	1,007,238,142
 <u>COLA</u>			
Member Accumulated Contributions	83,718,724	15,670,737	99,389,461
Cost of Living Reserve**	<u>269,177,449</u>	<u>50,385,491</u>	<u>319,562,940</u>
Total COL	352,896,173	66,056,228	418,952,401

* 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.

Settlement Reserves

	General	Safety	Total
<u>Supplemental Benefit (Section 6)</u>			
Supplemental Annuity Reserve	125,530,606	32,967,659	158,498,265
Member Accumulated Contributions	2,588,674	300,025	2,888,699
Annuity Pension Reserves	382	67	449
Current Service Reserves	<u>(24,698,579)</u>	<u>(5,129,575)</u>	<u>(29,828,154)</u>
Total	103,421,083	28,138,176	131,559,259

\$15 Dollar Retiree (Section 8)

Supplemental Benefit Reserve	87,165,307
Total	87,165,307

Retiree Health (Section 9)

Retiree Health Reserve	87,433,381
Proportion Attributable to Settlement***	0.34
Included Reserve	30,006,494

Non-Valuation Reserves

Undistributed Earnings	69,875,359
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Other Non-Valuation Reserves

i) Supplemental COLA	6,359,592
ii) Contingency Reserve	15,453,543
iii) Retiree Health Reserve***	<u>57,426,887</u>
iv) Total Other Non-Valuation Reserves	79,240,022

*** The Retiree Health Reserve was allocated between Settlement Reserves and Non-Valuation Reserves based on the portion of the Reserve that was attributable to Settlement Benefits at the time of the initial transfer.

Summary of Reserves**Valuation Reserves**

Regular Reserves	1,426,190,543
Settlement Reserves	<u>248,731,577</u>
Total Valuation Reserves	1,674,922,120

Non-Valuation Reserves

Undistributed Earnings	69,875,359
Other Non-Valuation Reserves	<u>79,240,022</u>
Total Non-Valuation Reserves	149,115,381

B. Liability Information

Present Value of Projected Benefits

Present Value of Projected Benefits – Basic

	Regular Benefits – Prior Assumptions	Regular Benefits – Proposed Assumptions	Regular and Settlement Benefits – Prior Assumptions	Regular and Settlement Benefits – Proposed Assumptions
1. Retirees and Beneficiaries				
A. General	345,600,864	352,158,415	458,998,271	467,680,417
B. Safety	<u>87,973,758</u>	<u>89,776,257</u>	<u>108,016,239</u>	<u>110,224,558</u>
C. Total	433,574,622	441,934,672	567,014,510	577,904,975
2. Deferred Vested Members				
A. General	55,685,736	55,232,057	70,963,563	70,462,637
B. Safety	<u>5,000,906</u>	<u>4,888,023</u>	<u>6,359,714</u>	<u>6,222,916</u>
C. Total	60,686,642	60,120,080	77,323,277	76,685,553
3. Active Members				
A. General	728,451,814	725,825,520	925,156,746	923,349,517
B. Safety	<u>180,719,844</u>	<u>180,753,614</u>	<u>216,532,837</u>	<u>216,740,865</u>
C. Total	909,171,658	906,579,134	1,141,689,583	1,140,090,382
4. All Members				
A. General	1,129,738,414	1,133,215,992	1,455,118,580	1,461,492,571
B. Safety	<u>273,694,508</u>	<u>275,417,894</u>	<u>330,908,790</u>	<u>333,188,339</u>
C. Total	1,403,432,922	1,408,633,886	1,786,027,370	1,794,680,910

Present Value of Projected Benefits – Basic and Cost of Living

	Regular Benefits – Prior Assumptions	Regular Benefits – Proposed Assumptions	Regular and Settlement Benefits – Prior Assumptions	Regular and Settlement Benefits – Proposed Assumptions
1. Retirees and Beneficiaries				
A. General	556,503,275	568,874,663	700,648,619	716,217,192
B. Safety	<u>140,081,298</u>	<u>143,512,866</u>	<u>165,895,912</u>	<u>169,952,860</u>
C. Total	696,584,573	712,387,529	866,544,531	886,170,052
2. Deferred Vested Members				
A. General	71,929,785	71,619,760	91,268,626	90,947,266
B. Safety	<u>6,691,182</u>	<u>6,573,670</u>	<u>8,472,559</u>	<u>8,329,976</u>
C. Total	78,620,967	78,193,430	99,741,185	99,277,242
3. Active Members				
A. General	940,316,573	940,906,199	1,192,254,684	1,194,779,646
B. Safety	<u>239,909,451</u>	<u>241,201,485</u>	<u>286,603,491</u>	<u>288,310,828</u>
C. Total	1,180,226,024	1,182,107,684	1,478,858,175	1,483,090,474
4. All Members				
A. General	1,568,749,633	1,581,400,622	1,984,171,929	2,001,944,104
B. Safety	<u>386,681,931</u>	<u>391,288,021</u>	<u>460,971,962</u>	<u>466,593,664</u>
C. Total	1,955,431,564	1,972,688,643	2,445,143,891	2,468,537,768

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

	Prior Assumptions	Proposed Assumptions
1. Retirees and Beneficiaries		
A. General	34,042,590	34,946,447
B. Safety	<u>9,269,670</u>	<u>9,518,319</u>
C. Total	43,312,260	44,464,766
2. Deferred Vested Members		
A. General	17,982,447	17,904,940
B. Safety	<u>1,672,795</u>	<u>1,643,418</u>
C. Total	19,655,242	19,548,358
3. Active Members		
A. General	236,635,015	237,870,937
B. Safety	<u>43,987,200</u>	<u>44,279,393</u>
C. Total	280,622,215	282,150,330
4. All Members		
A. General	288,660,052	290,722,324
B. Safety	<u>54,929,665</u>	<u>55,441,130</u>
C. Total	343,589,717	346,163,454

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

	Prior Assumptions	Proposed Assumptions
1. Retirees and Beneficiaries		
A. General	92,136,615	94,090,682
B. Safety	<u>13,538,511</u>	<u>13,853,350</u>
C. Total	105,675,126	107,944,032
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	92,136,615	94,090,682
B. Safety	<u>13,538,511</u>	<u>13,853,350</u>
C. Total	105,675,126	107,944,032

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

	Prior Assumptions	Proposed Assumptions
1. Retirees and Beneficiaries		
A. General	17,966,139	18,305,400
B. Safety	<u>3,006,433</u>	<u>3,068,325</u>
C. Total	20,972,572	21,373,725
2. Deferred Vested Members		
A. General	1,356,394	1,422,566
B. Safety	<u>108,582</u>	<u>112,888</u>
C. Total	1,464,976	1,535,454
3. Active Members		
A. General	15,303,096	16,002,510
B. Safety	<u>2,706,840</u>	<u>2,829,950</u>
C. Total	18,009,936	18,832,460
4. All Members		
A. General	34,625,629	35,730,476
B. Safety	<u>5,821,855</u>	<u>6,011,163</u>
C. Total	40,447,484	41,741,639

Actuarial Accrued Liability

Actuarial Accrued Liability – Basic

	Regular Benefits – Prior Assumptions	Regular Benefits – Proposed Assumptions	Regular and Settlement Benefits – Prior Assumptions	Regular and Settlement Benefits – Proposed Assumptions
1. Retirees and Beneficiaries				
A. General	345,600,864	352,158,415	458,998,271	467,680,417
B. Safety	<u>87,973,758</u>	<u>89,776,257</u>	<u>108,016,239</u>	<u>110,224,558</u>
C. Total	433,574,622	441,934,672	567,014,510	577,904,975
2. Deferred Vested Members				
A. General	55,685,736	55,232,057	70,963,563	70,462,637
B. Safety	<u>5,000,906</u>	<u>4,888,023</u>	<u>6,359,714</u>	<u>6,222,916</u>
C. Total	60,686,642	60,120,080	77,323,277	76,685,553
3. Active Members				
A. General	453,803,028	457,561,227	574,791,350	580,525,131
B. Safety	<u>117,595,073</u>	<u>118,907,521</u>	<u>141,996,272</u>	<u>143,703,251</u>
C. Total	571,398,101	576,468,748	716,787,622	724,228,382
4. All Members				
A. General	855,089,628	864,951,699	1,104,753,184	1,118,668,185
B. Safety	<u>210,569,737</u>	<u>213,571,801</u>	<u>256,372,225</u>	<u>260,150,725</u>
C. Total	1,065,659,365	1,078,523,500	1,361,125,409	1,378,818,910

Actuarial Accrued Liability – Basic and Cost of Living

	Regular Benefits – Prior Assumptions	Regular Benefits – Proposed Assumptions	Regular and Settlement Benefits – Prior Assumptions	Regular and Settlement Benefits – Proposed Assumptions
1. Retirees and Beneficiaries				
A. General	556,503,275	568,874,663	700,648,619	716,217,192
B. Safety	<u>140,081,298</u>	<u>143,512,866</u>	<u>165,895,912</u>	<u>169,952,860</u>
C. Total	696,584,573	712,387,529	866,544,531	886,170,052
2. Deferred Vested Members				
A. General	71,929,785	71,619,760	91,268,626	90,947,266
B. Safety	<u>6,691,182</u>	<u>6,573,670</u>	<u>8,472,559</u>	<u>8,329,976</u>
C. Total	78,620,967	78,193,430	99,741,185	99,277,242
3. Active Members				
A. General	589,854,948	597,208,311	745,064,368	755,522,409
B. Safety	<u>156,342,096</u>	<u>158,861,512</u>	<u>188,172,490</u>	<u>191,339,663</u>
C. Total	746,197,044	756,069,823	933,236,858	946,862,072
4. All Members				
A. General	1,218,288,008	1,237,702,734	1,536,981,613	1,562,686,867
B. Safety	<u>303,114,576</u>	<u>308,948,048</u>	<u>362,540,961</u>	<u>369,622,499</u>
C. Total	1,521,402,584	1,546,650,782	1,899,522,574	1,932,309,366

Actuarial Accrued Liability – Supplemental Settlement Benefits (Section 6)

	Prior Assumptions	Proposed Assumptions
1. Retirees and Beneficiaries		
A. General	34,042,590	34,946,447
B. Safety	<u>9,269,670</u>	<u>9,518,319</u>
C. Total	43,312,260	44,464,766
2. Deferred Vested Members		
A. General	17,982,447	17,904,940
B. Safety	<u>1,672,795</u>	<u>1,643,418</u>
C. Total	19,655,242	19,548,358
3. Active Members		
A. General	145,197,706	147,801,685
B. Safety	<u>29,943,101</u>	<u>30,494,754</u>
C. Total	175,140,807	178,296,439
4. All Members		
A. General	197,222,743	200,653,072
B. Safety	<u>40,885,566</u>	<u>41,656,491</u>
C. Total	238,108,309	242,309,563

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

	Prior Assumptions	Proposed Assumptions
1. Retirees and Beneficiaries		
A. General	92,136,615	94,090,682
B. Safety	<u>13,538,511</u>	<u>13,853,350</u>
C. Total	105,675,126	107,944,032
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	92,136,615	94,090,682
B. Safety	<u>13,538,511</u>	<u>13,853,350</u>
C. Total	105,675,126	107,944,032

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

	Prior Assumptions	Proposed Assumptions
1. Retirees and Beneficiaries		
A. General	17,966,139	18,305,400
B. Safety	<u>3,006,433</u>	<u>3,068,325</u>
C. Total	20,972,572	21,373,725
2. Deferred Vested Members		
A. General	1,356,394	1,422,566
B. Safety	<u>108,582</u>	<u>112,888</u>
C. Total	1,464,976	1,535,454
3. Active Members		
A. General	10,011,714	10,512,413
B. Safety	<u>1,887,293</u>	<u>1,983,397</u>
C. Total	11,899,007	12,495,810
4. All Members		
A. General	29,334,247	30,240,379
B. Safety	<u>5,002,308</u>	<u>5,164,610</u>
C. Total	34,336,555	35,404,989

Normal Cost

**Normal Cost –
 Basic**

	Regular Benefits – Prior Assumptions	Regular Benefits – Proposed Assumptions	Regular and Settlement Benefits – Prior Assumptions	Regular and Settlement Benefits – Proposed Assumptions
<i>Dollar Amounts</i>				
A. General	23,301,743	23,067,613	29,195,930	28,948,693
B. Safety	<u>5,641,214</u>	<u>5,612,936</u>	<u>6,545,225</u>	<u>6,511,757</u>
C. Total	28,942,957	28,680,549	35,741,155	35,460,450
<i>As a Percent of Payroll</i>				
A. General	8.46%	8.37%	10.60%	10.51%
B. Safety	11.03%	10.98%	12.80%	12.73%
C. Total	8.86%	8.78%	10.94%	10.86%

**Normal Cost –
 With Cost of Living**

	Regular Benefits – Prior Assumptions	Regular Benefits – Proposed Assumptions	Regular and Settlement Benefits – Prior Assumptions	Regular and Settlement Benefits – Proposed Assumptions
<i>Dollar Amounts</i>				
A. General	31,932,653	31,799,462	40,221,510	40,112,845
B. Safety	<u>8,000,139</u>	<u>8,018,254</u>	<u>9,299,839</u>	<u>9,318,034</u>
C. Total	39,932,792	39,817,716	49,521,349	49,430,879
<i>As a Percent of Payroll</i>				
A. General	11.59%	11.54%	14.60%	14.56%
B. Safety	15.64%	15.68%	18.19%	18.22%
C. Total	12.23%	12.19%	15.16%	15.14%

Normal Cost – Settlement Benefits (Prior Assumption)

	Supplemental Benefit (Section 6)	\$15 Retiree (Section 8)	Retiree Health (Section 9)
<i>Dollar Amounts</i>			
A. General	7,648,773	0	640,084
B. Safety	<u>1,196,845</u>	<u>0</u>	<u>102,855</u>
C. Total	8,845,618	0	742,939
<i>As a Percent of Payroll</i>			
A. General	2.78%	0.00%	0.23%
B. Safety	2.34%	0.00%	0.20%
C. Total	2.71%	0.00%	0.23%

Normal Cost – Settlement Benefits (Proposed Assumptions)

	Supplemental Benefit (Section 6)	\$15 Retiree (Section 8)	Retiree Health (Section 9)
<i>Dollar Amounts</i>			
A. General	7,644,982	0	668,401
B. Safety	<u>1,193,153</u>	<u>0</u>	<u>106,627</u>
C. Total	8,838,135	0	775,028
<i>As a Percent of Payroll</i>			
A. General	2.78%	0.00%	0.24%
B. Safety	2.33%	0.00%	0.21%
C. Total	2.71%	0.00%	0.24%

C. Employer Contribution Rates

Regular Benefits

Basic

	General	Safety	Total
1. Normal Cost	23,067,613	5,612,936	28,680,549
2. UAAL Amortization Payment			
a) Basic UAAL	62,385,690	8,899,668	71,285,358
b) Amortization Factor – 15 Years	11.56312	11.56312	11.56312
c) Amortization Payment = (a) / (b)	5,395,230	769,660	6,164,890
3. Preliminary Contribution = (1) + (2c)	28,462,843	6,382,596	34,845,439
4. Interest for Payments during year	1,138,514	255,304	1,393,818
5. Adjustment for payment during next fiscal year	1,184,054	265,516	1,449,570
6. Required Contribution = (3) + (4) + (5)			
a) Dollar Amount	30,785,411	6,903,416	37,688,827
b) Percentage of Payroll	10.75%	12.98%	11.10%

COLA

	General	Safety	Total
1. Normal Cost			
a) Total Normal Cost	8,731,849	2,405,318	11,137,167
b) Portion paid by Employers	50%	50%	50%
c) Employer Normal Cost = (a) X (b)	4,365,925	1,202,659	5,568,584
2. UAAL Amortization Payment			
a) COLA UAAL	19,854,862	29,320,019	49,174,881
b) Amortization Factor	11.56312	11.56312	11.56312
c) Amortization Payment = (a) / (b)	1,717,085	2,535,649	4,252,734
d) Portion paid by Employers	50%	50%	50%
e) Employer UAAL Amortization Payment = (c) X (d)	858,543	1,267,825	2,126,368
3. Preliminary Contribution = (1) + (2e)	5,224,468	2,470,484	7,694,952
4. Interest for Payments during year	208,979	98,819	307,798
5. Adjustment for payment during next fiscal year	217,338	102,772	320,110
6. Required Contribution = (3) + (4) + (5)			
a) Dollar Amount	5,650,785	2,672,075	8,322,860
b) Percentage of Payroll	1.97%	5.02%	2.45%

Total Regular Benefits

	General	Safety	Total
1. Normal Cost	27,433,538	6,815,595	34,249,133
2. UAAL Amortization Payment	6,253,773	2,037,485	8,291,258
3. Preliminary Contribution = (1) + (2)	33,687,311	8,853,080	42,540,391
4. Interest for Payments during year	1,347,492	354,123	1,701,615
5. Adjustment for payment during next fiscal year	1,401,392	368,288	1,769,680
6. Required Contribution = (3) + (4) + (5)			
a) Dollar Amount	36,436,195	9,575,491	46,011,686
b) Percentage of Payroll	12.72%	18.00%	13.55%

Settlement Benefits

Supplemental Settlement Benefits (Section 6)

	General	Safety	Total
1. Normal Cost	7,644,982	1,193,153	8,838,135
2. UAAL Amortization Payment			
a) UAAL			
i) Actuarial Accrued Liability	200,653,072	41,656,491	242,309,563
ii) Actuarial Value of Assets	103,421,083	28,138,176	131,559,259
iii) Unfunded Actuarial Accrued Liability	97,231,989	13,518,315	110,750,304
b) Amortization Factor	17.98371	17.98371	17.98371
c) Amortization Payment = (a) / (b)	5,406,670	751,698	6,158,368
3. Preliminary Contribution = (1) + (2c)	13,051,652	1,944,851	14,996,503
4. Interest for Payments during year	522,066	77,794	599,860
5. Adjustment for payment during next fiscal year	542,949	80,906	623,855
6. Required Contribution = (3) + (4) + (5)			
a) Dollar Amount	14,116,667	2,103,551	16,220,218
b) Percentage of Payroll	4.93%	3.96%	4.78%

\$15 Retiree Settlement Benefits (Section 8)

	General	Safety	Total
1. UAAL Amortization Payment			
a) UAAL			
i) Actuarial Accrued Liability			107,944,032
ii) Actuarial Value of Assets			87,165,824
iii) Unfunded Actuarial Accrued Liability			20,778,208
b) Amortization Factor			17.98371
c) Amortization Payment			1,155,391
d) Covered Payroll	275,442,978	51,137,328	326,580,306
e) UAAL Amortization Percentage	0.35%	0.35%	0.35%
f) Amortization Payment	964,050	178,981	1,143,031
2. Preliminary Contribution	964,050	178,981	1,143,031
3. Interest for Payments during year	38,562	7,159	45,721
4. Adjustment for payment during next fiscal year	40,104	7,446	47,550
5. Required Contribution			
= (2) + (3) + (4)			
a) Dollar Amount	1,042,716	193,586	1,236,302
b) Percentage of Payroll	0.36%	0.36%	0.36%

Retiree Health Benefits from Settlement (Section 9)

	General	Safety	Total
1. Normal Cost	668,401	106,627	775,028
2. UAAL Amortization Payment			
a) UAAL			
i) Actuarial Accrued Liability			35,404,989
ii) Actuarial Value of Assets			30,006,494
iii) Unfunded Actuarial Accrued Liability			5,398,495
b) Amortization Factor			17.98371
c) Amortization Payment = (a) / (b)			300,188
d) Covered Payroll	275,442,978	51,137,328	326,580,306
e) UAAL Amortization Percentage = (c) / (d)	0.09%	0.09%	0.09%
f) Amortization Payment = (d) X (e)	247,899	46,024	293,923
3. Preliminary Contribution = (1) + (2f)	916,300	152,651	1,068,951
4. Interest for Payments during year	36,652	6,106	42,758
5. Adjustment for payment during next fiscal year	38,118	6,350	44,468
6. Required Contribution = (3) + (4) + (5)			
a) Dollar Amount	991,070	165,107	1,156,177
b) Percentage of Payroll	0.35%	0.31%	0.34%

Total Settlement Benefits

	General	Safety	Total
1. Normal Cost	8,313,383	1,299,780	9,613,163
2. UAAL Amortization Payment	6,618,619	976,703	7,595,322
3. Preliminary Contribution = (1) + (2)	14,932,002	2,276,483	17,208,485
4. Interest for Payments during year	597,280	91,059	688,339
5. Adjustment for payment during next fiscal year	621,171	94,702	715,873
6. Required Employer Contribution			
a) Dollar Amount	16,150,453	2,462,244	18,612,697
b) Percentage of Payroll	5.64%	4.63%	5.48%

D. Allocation of Undistributed Earnings

Under the Ventura Settlement Agreement, the additional costs associated with the benefits provided under the Settlement will be paid from Undistributed Earnings to the extent any are available. In order to do so, the Undistributed Earnings in FCERA as of the valuation date should be allocated as follows.

	Actuarial Value	Fair Value
1. Undistributed Earnings as of June 30, 2002	69,875,359	70,788,164
2. Allocate toward payment of contributions		
a) \$15 Retiree Benefits (Section 8)	1,236,302	1,252,452
b) Supplemental Benefits (Section 6)		
i) Employer	16,220,218	16,432,108
ii) Member	3,218,842	3,260,891
c) Retiree Health Benefits (Section 9)	1,156,177	1,171,281
d) Total Allocated for contributions	21,831,539	22,116,732
3. Allocate to Unfunded Settlement Liability		
a) \$15 Retiree Benefits (Section 8)		
i) Unfunded Settlement Liability (after amortization payment)	19,622,817	
ii) Remaining Undistributed Earnings	48,043,820	
iii) Amount to be allocated	19,622,817	19,879,156
b) Retiree Health Benefits (Section 9)		
i) Unfunded Settlement Liability (after amortization payment)	11,434,957	
ii) Remaining Undistributed Earnings	28,421,003	
iii) Amount to be allocated	11,434,957	11,584,335
c) Supplemental Benefits (Section 6)		
i) Unfunded Settlement Liability (after amortization payment)	208,445,827	
ii) Remaining Undistributed Earnings	16,986,046	
iii) Amount to be allocated	16,986,046	17,207,940
d) Total Allocated for Liabilities	48,043,820	48,671,432
4. Total Amount Allocated to each Reserve		
a) Supplemental Annuity Reserve (Section 6)		36,900,939
b) Supplemental Benefit Reserve (Section 8)		21,131,608
c) Retiree Health Reserve (Section 9)		<u>12,755,616</u>
d) Total Allocated		70,788,164

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:

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.

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.
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 84%.
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

Because the contributions needed to pay Settlement Benefits will be paid from Undistributed Earnings for this year, the required member contributions will be only those needed to provide for Regular Benefits.

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	1.30%	1.95%	40	1.82%	2.74%
21	1.32%	1.97%	41	1.86%	2.79%
22	1.33%	2.00%	42	1.89%	2.84%
23	1.35%	2.02%	43	1.93%	2.90%
24	1.37%	2.05%	44	1.97%	2.95%
25	1.39%	2.08%	45	2.00%	3.01%
26	1.41%	2.11%	46	2.04%	3.06%
27	1.43%	2.14%	47	2.08%	3.12%
28	1.45%	2.18%	48	2.12%	3.18%
29	1.48%	2.22%	49	2.16%	3.24%
30	1.50%	2.26%	50	2.20%	3.29%
31	1.53%	2.30%	51	2.24%	3.35%
32	1.56%	2.34%	52	2.28%	3.42%
33	1.59%	2.39%	53	2.32%	3.48%
34	1.62%	2.44%	54	2.36%	3.54%
35	1.66%	2.48%	55	2.40%	3.60%
36	1.69%	2.53%	56	2.44%	3.67%
37	1.72%	2.58%	57	2.49%	3.73%
38	1.76%	2.63%	58	2.53%	3.80%
39	1.79%	2.68%	59	2.57%	3.86%

The above rates are based on 8.16% interest and 1994 Group Annuity Table male mortality rates, set back two years.

General 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	1.09%	1.64%	40	1.53%	2.30%
21	1.10%	1.66%	41	1.56%	2.34%
22	1.12%	1.68%	42	1.59%	2.39%
23	1.13%	1.70%	43	1.62%	2.43%
24	1.15%	1.72%	44	1.65%	2.48%
25	1.16%	1.75%	45	1.68%	2.52%
26	1.18%	1.77%	46	1.71%	2.57%
27	1.20%	1.80%	47	1.75%	2.62%
28	1.22%	1.83%	48	1.78%	2.67%
29	1.24%	1.86%	49	1.81%	2.72%
30	1.26%	1.90%	50	1.84%	2.77%
31	1.29%	1.93%	51	1.88%	2.82%
32	1.31%	1.97%	52	1.91%	2.87%
33	1.34%	2.01%	53	1.95%	2.92%
34	1.36%	2.05%	54	1.98%	2.97%
35	1.39%	2.09%	55	2.02%	3.03%
36	1.42%	2.13%	56	2.05%	3.08%
37	1.45%	2.17%	57	2.09%	3.13%
38	1.47%	2.21%	58	2.13%	3.19%
39	1.50%	2.25%	59	2.16%	3.24%

The above rates are based on 8.16% interest and 1994 Group Annuity Table male mortality rates, set back two years.

General Member Settlement Contribution Rates

This table shows the additional contribution rates that would have been paid under proposed legislation to implement the Ventura Settlement Agreement. During the upcoming year, Plan Members will not be required to make these additional contributions because these contributions will be made from Undistributed Earnings.

In future years, Plan Members may again be required to make these contributions if sufficient Undistributed Earnings are not available.

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	1.12%	1.68%	40	1.52%	2.28%
21	1.13%	1.69%	41	1.55%	2.32%
22	1.14%	1.70%	42	1.57%	2.36%
23	1.15%	1.72%	43	1.60%	2.40%
24	1.16%	1.74%	44	1.63%	2.45%
25	1.18%	1.76%	45	1.66%	2.49%
26	1.19%	1.79%	46	1.69%	2.53%
27	1.21%	1.81%	47	1.72%	2.58%
28	1.23%	1.84%	48	1.75%	2.62%
29	1.25%	1.87%	49	1.78%	2.67%
30	1.27%	1.90%	50	1.81%	2.71%
31	1.29%	1.93%	51	1.84%	2.76%
32	1.31%	1.97%	52	1.87%	2.81%
33	1.34%	2.00%	53	1.90%	2.85%
34	1.36%	2.04%	54	1.93%	2.90%
35	1.39%	2.08%	55	1.89%	2.84%
36	1.41%	2.12%	56	1.85%	2.77%
37	1.44%	2.16%	57	1.81%	2.71%
38	1.46%	2.20%	58	1.76%	2.64%
39	1.49%	2.24%	59	1.72%	2.58%

The above rates are based on 8.16% interest and 1994 Group Annuity Table male mortality rates, set back two years.

General Member Contribution Rates (Basic plus 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	2.40%	3.59%	40	3.36%	5.03%
21	2.42%	3.63%	41	3.42%	5.13%
22	2.45%	3.67%	42	3.49%	5.23%
23	2.48%	3.72%	43	3.55%	5.33%
24	2.51%	3.77%	44	3.62%	5.43%
25	2.55%	3.82%	45	3.69%	5.53%
26	2.59%	3.88%	46	3.76%	5.63%
27	2.63%	3.95%	47	3.83%	5.74%
28	2.67%	4.01%	48	3.90%	5.84%
29	2.72%	4.08%	49	3.97%	5.95%
30	2.77%	4.15%	50	4.04%	6.06%
31	2.82%	4.23%	51	4.11%	6.17%
32	2.87%	4.31%	52	4.19%	6.28%
33	2.93%	4.39%	53	4.26%	6.40%
34	2.99%	4.48%	54	4.34%	6.51%
35	3.05%	4.57%	55	4.42%	6.63%
36	3.11%	4.66%	56	4.50%	6.74%
37	3.17%	4.75%	57	4.58%	6.86%
38	3.23%	4.84%	58	4.66%	6.98%
39	3.29%	4.94%	59	4.74%	7.10%

The above rates are based on 8.16% interest and 1994 Group Annuity Table male mortality rates, set back two years.

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:

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.

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.
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 84%.
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

Because the contributions needed to pay Settlement Benefits will be paid from Undistributed Earnings for this year, the required member contributions will be only those needed to provide for Regular Benefits.

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	2.76%	4.14%
21	2.20%	3.29%	36	2.81%	4.22%
22	2.23%	3.34%	37	2.86%	4.30%
23	2.26%	3.39%	38	2.92%	4.38%
24	2.30%	3.44%	39	2.97%	4.46%
25	2.33%	3.50%	40	3.02%	4.54%
26	2.37%	3.55%	41	3.08%	4.62%
27	2.41%	3.61%	42	3.14%	4.70%
28	2.45%	3.67%	43	3.19%	4.79%
29	2.49%	3.73%	44	3.25%	4.87%
30	2.53%	3.80%	45	3.31%	4.96%
31	2.58%	3.86%	46	3.37%	5.05%
32	2.62%	3.93%	47	3.42%	5.14%
33	2.67%	4.00%	48	3.48%	5.23%
34	2.71%	4.07%	49	3.55%	5.32%

The above rates are based on 8.16% interest and 1994 Group Annuity Table male mortality rates.

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	1.82%	2.73%	35	2.32%	3.48%
21	1.84%	2.77%	36	2.36%	3.54%
22	1.87%	2.81%	37	2.41%	3.61%
23	1.90%	2.85%	38	2.45%	3.68%
24	1.93%	2.89%	39	2.49%	3.74%
25	1.96%	2.94%	40	2.54%	3.81%
26	1.99%	2.99%	41	2.59%	3.88%
27	2.02%	3.03%	42	2.63%	3.95%
28	2.06%	3.08%	43	2.68%	4.02%
29	2.09%	3.14%	44	2.73%	4.09%
30	2.13%	3.19%	45	2.78%	4.17%
31	2.16%	3.24%	46	2.83%	4.24%
32	2.20%	3.30%	47	2.88%	4.31%
33	2.24%	3.36%	48	2.93%	4.39%
34	2.28%	3.42%	49	2.98%	4.47%

The above rates are based on 8.16% interest and 1994 Group Annuity Table male mortality rates.

Safety Member Settlement Contribution Rates

This table shows the additional contribution rates that would have been paid under proposed legislation to implement the Ventura Settlement Agreement. During the upcoming year, Plan Members will not be required to make these additional contributions because these contributions will be made from Undistributed Earnings.

In future years, Plan Members may again be required to make these contributions if sufficient Undistributed Earnings are not available.

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	0.54%	0.81%	35	0.69%	1.04%
21	0.55%	0.82%	36	0.70%	1.06%
22	0.56%	0.84%	37	0.72%	1.07%
23	0.57%	0.85%	38	0.73%	1.09%
24	0.57%	0.86%	39	0.74%	1.11%
25	0.58%	0.87%	40	0.76%	1.13%
26	0.59%	0.89%	41	0.77%	1.15%
27	0.60%	0.90%	42	0.78%	1.18%
28	0.61%	0.92%	43	0.80%	1.20%
29	0.62%	0.93%	44	0.81%	1.22%
30	0.63%	0.95%	45	0.83%	1.24%
31	0.64%	0.97%	46	0.84%	1.26%
32	0.65%	0.98%	47	0.86%	1.28%
33	0.67%	1.00%	48	0.87%	1.31%
34	0.68%	1.02%	49	0.89%	1.33%

The above rates are based on 8.16% interest and 1994 Group Annuity Table male mortality rates.

Safety Member Contribution Rates (Basic plus 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	3.99%	5.98%	35	5.08%	7.62%
21	4.04%	6.06%	36	5.18%	7.76%
22	4.10%	6.15%	37	5.27%	7.91%
23	4.16%	6.24%	38	5.37%	8.05%
24	4.22%	6.34%	39	5.46%	8.20%
25	4.29%	6.43%	40	5.56%	8.35%
26	4.36%	6.54%	41	5.67%	8.50%
27	4.43%	6.65%	42	5.77%	8.65%
28	4.50%	6.76%	43	5.87%	8.81%
29	4.58%	6.87%	44	5.98%	8.97%
30	4.66%	6.99%	45	6.08%	9.12%
31	4.74%	7.11%	46	6.19%	9.29%
32	4.82%	7.23%	47	6.30%	9.45%
33	4.90%	7.36%	48	6.41%	9.62%
34	4.99%	7.49%	49	6.52%	9.78%

The above rates are based on 8.16% interest and 1994 Group Annuity Table male mortality rates.

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. This is a change from 8.42% in the previous valuation.
Salary Increase – Total Payroll:	4.0 % per year. This is a change from 4.5% in the previous valuation.
Salary Increase – Individual:	Rates varying by age, as shown in Schedule 1.
Inflation:	4.0% per year. This is a change from 4.5% in the previous valuation.
Employee Contribution Interest Crediting Rate:	8.16% per year. This is a change from 8.42% in the previous valuation.

Demographic Assumptions

Post-retirement mortality:

- **Service Retirement - General:** 1994 Group Annuity Mortality, with ages set forward one year for female members. Life Expectancies are shown in Schedule 2.
- **Service Retirement - Safety:** 1994 Group Annuity Mortality for males, with no age adjustment. Life Expectancies are shown in Schedule 3.
- **Disability Retirement:** 1981 Disability Mortality. Life Expectancies are shown in Schedule 4.
- **Spouse:** 1994 Group Annuity Mortality, with ages set forward one year for female

beneficiaries.

<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).
<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). 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). Separate rates for ordinary death, service related death, and death while eligible.
<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.

Benefit Eligibility:

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 this valuation for Regular Benefits is amortized over a 15-year period. The UAAL for Settlement Benefits are amortized over 30-year period. In future years, 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.

This is a change from the prior valuation. Under the prior methodology, the amortization period for the entire UAAL would have been 8 years.

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.

Schedule 1
Assumed Rate of Salary Increase

Age	General Members	Safety Members
20	10.240%	8.160%
21	9.720%	6.600%
22	8.680%	6.080%
23	7.640%	6.080%
24	7.640%	6.080%
25	6.600%	5.560%
26	6.600%	5.560%
27	6.600%	5.560%
28	6.600%	5.248%
29	6.600%	5.248%
30	6.080%	5.248%
31	5.560%	5.248%
32	5.040%	5.248%
33	4.520%	5.040%
34	4.520%	5.040%
35	4.520%	4.624%
36	4.520%	4.624%
37	4.520%	4.624%
38	4.520%	4.624%
39	4.520%	4.624%
40	4.520%	4.520%
41	4.520%	4.520%
42	4.520%	4.520%
43	4.520%	4.520%
44	4.520%	4.520%
45	4.520%	4.520%
46	4.520%	4.520%
47	4.520%	4.520%
48	4.520%	4.520%
49	4.520%	4.520%
50	4.520%	4.520%
51	4.520%	4.520%
52	4.520%	4.520%
53	4.520%	4.520%
54	4.520%	4.520%
55	4.520%	4.624%
56	4.520%	4.520%
57	4.520%	4.520%
58	4.520%	4.520%
59	4.520%	4.520%
60	4.520%	
61	4.520%	
62	4.520%	
63	4.520%	
64	4.520%	
65	4.520%	
66	4.520%	
67	4.520%	
68	4.520%	
69	4.520%	

Schedule 2

Life Expectancies at Sample Ages

Healthy General Members

Age	Male	Female	Age	Male	Female
20	59.44	63.16	70	14.33	16.58
21	58.47	62.18	71	13.67	15.82
22	57.50	61.19	72	13.02	15.08
23	56.53	60.21	73	12.38	14.35
24	55.57	59.23	74	11.77	13.64
25	54.60	58.25	75	11.16	12.94
26	53.64	57.26	76	10.57	12.27
27	52.68	56.28	77	10.00	11.61
28	51.71	55.30	78	9.45	10.97
29	50.75	54.32	79	8.92	10.35
30	49.79	53.33	80	8.41	9.76
31	48.83	52.35	81	7.93	9.18
32	47.87	51.37	82	7.48	8.63
33	46.91	50.40	83	7.04	8.09
34	45.95	49.42	84	6.63	7.59
35	44.99	48.44	85	6.23	7.10
36	44.03	47.47	86	5.84	6.63
37	43.06	46.49	87	5.47	6.19
38	42.10	45.52	88	5.11	5.77
39	41.14	44.55	89	4.78	5.39
40	40.18	43.58	90	4.46	5.02
41	39.22	42.61	91	4.17	4.69
42	38.27	41.65	92	3.90	4.37
43	37.32	40.68	93	3.65	4.08
44	36.36	39.72	94	3.42	3.81
45	35.42	38.76	95	3.21	3.55
46	34.47	37.80	96	3.02	3.32
47	33.53	36.84	97	2.85	3.10
48	32.59	35.88	98	2.70	2.90
49	31.66	34.93	99	2.56	2.71
50	30.73	33.98	100	2.43	2.54
51	29.81	33.03	101	2.31	2.38
52	28.90	32.09	102	2.19	2.23
53	27.99	31.15	103	2.08	2.10
54	27.09	30.21	104	1.97	1.98
55	26.19	29.28	105	1.88	1.88
56	25.31	28.35	106	1.80	1.79
57	24.43	27.44	107	1.73	1.70
58	23.56	26.53	108	1.66	1.63
59	22.71	25.63	109	1.61	1.58
60	21.87	24.74	110	1.57	1.55
61	21.04	23.86	111	1.55	1.54
62	20.23	23.00	112	1.54	1.53
63	19.43	22.15	113	1.53	1.53
64	18.65	21.32	114	1.53	1.51
65	17.88	20.50	115	1.51	1.48
66	17.14	19.69	116	1.48	1.42
67	16.41	18.90	117	1.42	1.29
68	15.70	18.12	118	1.29	1.04
69	15.01	17.35			

General Members – 1994 Group Annuity Mortality, females set forward 1 year

Schedule 3

Life Expectancies at Sample Ages
Healthy Safety Members

Age	Unisex	Age	Unisex
20	59.44	70	14.33
21	58.47	71	13.67
22	57.50	72	13.02
23	56.53	73	12.38
24	55.57	74	11.77
25	54.60	75	11.16
26	53.64	76	10.57
27	52.68	77	10.00
28	51.71	78	9.45
29	50.75	79	8.92
30	49.79	80	8.41
31	48.83	81	7.93
32	47.87	82	7.48
33	46.91	83	7.04
34	45.95	84	6.63
35	44.99	85	6.23
36	44.03	86	5.84
37	43.06	87	5.47
38	42.10	88	5.11
39	41.14	89	4.78
40	40.18	90	4.46
41	39.22	91	4.17
42	38.27	92	3.90
43	37.32	93	3.65
44	36.36	94	3.42
45	35.42	95	3.21
46	34.47	96	3.02
47	33.53	97	2.85
48	32.59	98	2.70
49	31.66	99	2.56
50	30.73	100	2.43
51	29.81	101	2.31
52	28.90	102	2.19
53	27.99	103	2.08
54	27.09	104	1.97
55	26.19	105	1.88
56	25.31	106	1.80
57	24.43	107	1.73
58	23.56	108	1.66
59	22.71	109	1.61
60	21.87	110	1.57
61	21.04	111	1.55
62	20.23	112	1.54
63	19.43	113	1.53
64	18.65	114	1.53
65	17.88	115	1.51
66	17.14	116	1.48
67	16.41	117	1.42
68	15.70	118	1.29
69	15.01	119	14.33

General Members – 1994 Group Annuity Mortality, males

Schedule 4

Life Expectancies at Sample Ages

Disabled Members

Age	General Members	Safety Members	Age	General Members	Safety Members
20	38.77	49.33	70	11.74	11.74
21	38.02	48.43	71	11.25	11.25
22	37.30	47.52	72	10.76	10.76
23	36.60	46.62	73	10.26	10.26
24	35.91	45.72	74	9.77	9.77
25	35.23	44.83	75	9.28	9.28
26	34.57	43.93	76	8.80	8.80
27	33.91	43.05	77	8.32	8.32
28	33.27	42.16	78	7.87	7.87
29	32.64	41.28	79	7.45	7.45
30	32.02	40.40	80	7.05	7.05
31	31.41	39.53	81	6.67	6.67
32	30.81	38.66	82	6.32	6.32
33	30.21	37.79	83	5.98	5.98
34	29.62	36.92	84	5.67	5.67
35	29.04	36.06	85	5.38	5.38
36	28.47	35.20	86	5.10	5.10
37	27.91	34.35	87	4.84	4.84
38	27.35	33.50	88	4.59	4.59
39	26.80	32.65	89	4.35	4.35
40	26.26	31.81	90	4.13	4.13
41	25.72	30.97	91	3.91	3.91
42	25.18	30.13	92	3.71	3.71
43	24.65	29.30	93	3.50	3.50
44	24.13	28.48	94	3.30	3.30
45	23.62	27.66	95	3.11	3.11
46	23.11	26.84	96	2.93	2.93
47	22.60	26.03	97	2.75	2.75
48	22.10	25.22	98	2.58	2.58
49	21.61	24.42	99	2.41	2.41
50	21.12	23.63	100	2.25	2.25
51	20.63	22.84	101	2.08	2.08
52	20.15	22.07	102	1.92	1.92
53	19.67	21.30	103	1.76	1.76
54	19.20	20.55	104	1.59	1.59
55	18.72	19.81	105	1.42	1.42
56	18.26	19.10	106	1.25	1.25
57	17.79	18.44	107	1.09	1.09
58	17.33	17.82	108	0.92	0.92
59	16.87	17.24	109	0.76	0.76
60	16.41	16.69	110	0.54	0.54
61	15.95	16.15	111	0.54	0.54
62	15.49	15.63	112	0.54	0.54
63	15.03	15.12	113	0.54	0.54
64	14.57	14.62	114	0.54	0.54
65	14.11	14.13	115	0.54	0.54
66	13.64	13.65	116	0.54	0.54
67	13.18	13.18	117	0.54	0.54
68	12.70	12.70	118	0.54	0.54
69	12.22	12.22			

General Members – 1981 Disability Mortality

Safety Members – 1981 Disability Mortality for Safety

Schedule 5

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

General Members - Male

Age	Ordinary Withdrawal (Refund)	Ordinary Death	Ordinary Disability	Service Retirement	Death While Eligible	Service Death	Service Disability	Vested Termination
20	1,550	2	-	-	-	1	1	6
21	1,500	2	-	-	-	1	1	6
22	1,450	2	-	-	-	1	1	12
23	1,380	2	-	-	-	1	1	18
24	1,310	2	-	-	-	1	1	23
25	1,240	3	1	-	1	1	1	29
26	1,170	3	1	-	1	1	1	35
27	1,100	3	1	-	1	1	1	47
28	1,030	3	1	-	1	1	1	59
29	960	3	1	-	1	1	1	70
30	900	4	1	-	1	1	1	82
31	830	4	1	-	1	1	1	94
32	760	4	1	-	1	1	1	105
33	700	4	1	-	3	1	1	117
34	630	4	1	-	3	1	1	140
35	570	5	1	-	3	1	2	176
36	520	5	1	-	3	1	2	205
37	480	5	2	-	3	1	2	222
38	450	5	2	-	3	1	2	252
39	420	6	2	-	3	1	2	263
40	390	6	3	-	4	1	2	269
41	360	6	3	-	4	1	2	269
42	330	7	4	-	4	1	2	269
43	300	7	4	-	5	1	3	257
44	270	8	5	-	5	1	3	246
45	230	8	6	-	7	1	3	234
46	190	9	7	-	7	1	4	222
47	150	10	8	-	8	1	4	211
48	120	11	9	-	8	1	5	187
49	100	12	10	-	9	1	5	164
50	100	13	11	350	10	1	6	140
51	100	14	12	270	12	1	7	117
52	100	15	14	200	13	2	8	94
53	100	16	15	200	14	2	9	82
54	100	17	17	400	16	2	10	76
55	100	18	18	550	17	2	11	76
56	100	19	20	630	18	2	12	76
57	100	20	21	760	20	2	13	76
58	100	21	22	900	21	2	14	76
59	100	22	23	1,300	22	3	15	76
60	100	24	23	1,500	23	3	16	70
61	100	26	24	1,800	25	3	16	59
62	100	28	24	4,000	26	3	17	47
63	100	30	25	2,400	29	3	17	35
64	100	32	25	2,500	31	4	18	23
65	-	34	-	3,500	35	4	-	-
66	-	36	-	3,500	39	4	-	-
67	-	38	-	3,500	44	4	-	-
68	-	40	-	4,500	51	4	-	-
69	-	42	-	6,000	59	4	-	-
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	Ordinary Withdrawal (Refund)	Ordinary Death	Ordinary Disability	Service Retirement	Death While Eligible	Service Death	Service Disability	Vested Termination
20	1,650	1	-	-	-	-	1	27
21	1,650	1	-	-	-	-	1	27
22	1,600	1	-	-	-	-	1	27
23	1,550	1	-	-	-	-	1	27
24	1,550	1	-	-	-	-	1	45
25	1,500	2	1	-	1	-	1	45
26	1,300	2	1	-	1	-	1	45
27	1,150	2	1	-	1	-	1	45
28	1,050	2	1	-	1	-	1	45
29	1,020	3	1	-	1	-	1	45
30	950	3	1	-	1	-	1	45
31	840	3	1	-	1	-	1	45
32	700	3	1	-	1	-	1	45
33	600	4	1	-	1	-	1	45
34	490	4	1	-	1	-	1	90
35	460	4	2	-	1	-	1	162
36	420	5	2	-	1	-	1	198
37	390	5	2	-	1	-	1	198
38	370	5	3	-	1	-	1	180
39	350	5	3	-	1	-	2	171
40	320	6	3	-	1	-	2	167
41	300	6	4	-	1	-	2	162
42	290	6	4	-	1	-	2	158
43	270	7	5	-	1	-	2	158
44	250	7	5	-	1	-	2	153
45	250	7	6	-	2	-	2	153
46	240	8	7	-	2	-	2	149
47	240	8	8	-	2	-	2	144
48	230	9	9	-	2	-	3	140
49	230	9	10	-	2	-	3	131
50	220	10	11	400	2	-	3	117
51	220	10	12	300	2	-	3	99
52	210	11	13	300	3	-	4	81
53	210	11	14	300	3	-	4	63
54	200	12	15	300	3	-	5	45
55	190	12	16	800	3	-	5	45
56	180	13	17	300	4	-	6	72
57	170	14	18	800	4	-	6	63
58	150	15	19	1,000	4	-	7	54
59	140	16	21	1,200	5	-	7	45
60	130	18	23	1,400	5	-	8	45
61	130	19	25	1,000	5	-	9	45
62	130	20	27	3,000	5	-	10	45
63	130	21	29	1,250	5	-	11	45
64	130	22	31	1,250	5	-	13	45
65	-	24	-	4,500	6	-	-	-
66	-	25	-	2,000	6	-	-	-
67	-	26	-	3,000	6	-	-	-
68	-	27	-	3,000	7	-	-	-
69	-	28	-	3,000	7	-	-	-
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	Ordinary Withdrawal (Refund)	Ordinary Death	Ordinary Disability	Service Retirement	Death While Eligible	Service Death	Service Disability	Vested Termination
20	1,050	2	-	-	-	2	6	1
21	950	2	-	-	-	2	6	11
22	900	2	-	-	-	2	6	12
23	850	2	-	-	-	2	7	13
24	800	2	-	-	-	2	7	14
25	750	2	2	-	1	2	8	20
26	720	2	2	-	1	2	9	30
27	700	2	3	-	2	2	10	50
28	680	2	3	-	2	2	11	100
29	660	2	3	-	2	2	12	170
30	640	3	3	-	2	3	13	250
31	600	3	4	-	2	3	14	340
32	550	3	4	-	2	3	16	300
33	490	3	4	-	2	3	18	270
34	430	3	5	-	2	3	21	240
35	370	4	6	-	2	4	23	220
36	310	4	6	-	2	4	25	200
37	280	4	7	-	2	4	28	180
38	250	4	8	-	2	4	31	160
39	220	4	9	-	2	4	35	140
40	190	5	10	-	2	5	39	120
41	170	5	10	-	2	5	43	100
42	150	5	11	-	2	5	47	80
43	120	5	12	-	2	5	52	60
44	100	5	12	-	2	5	58	40
45	90	6	13	200	3	6	64	30
46	80	6	14	200	3	6	71	20
47	70	7	14	200	4	7	79	10
48	60	7	15	200	5	7	88	8
49	50	8	16	250	5	8	97	5
50	50	8	16	300	6	8	1,060	-
51	40	8	17	300	7	8	115	-
52	40	8	18	500	8	9	125	-
53	30	9	19	700	8	10	135	-
54	-	9	20	900	9	10	145	-
55	-	10	20	1,500	10	11	155	-
56	-	10	21	1,000	11	11	165	-
57	-	11	22	1,000	11	12	175	-
58	-	11	22	2,500	12	13	185	-
59	-	11	23	3,500	13	14	195	-
60	-	-	-	10,000	-	-	-	-

J. Member Information

Active Participants

General Members	June 30, 2002	June 30, 2000
Number	6,811	6,195
Average Age	43.0	43.2
Average Service	8.4	9.1
Percent Male	35.7%	36.9%
Average Annual Pay	\$40,471	\$36,789
Total Covered Payroll	\$275,645,757	\$227,909,746

Safety Members

Number	923	904
Average Age	39.7	40.2
Average Service	10.2	10.7
Percent Male	82.5%	81.8%
Average Annual Pay	\$55,611	\$50,350
Total Covered Payroll	\$51,329,403	\$45,516,202

Total Active Members

Number	7,734	7,099
Average Age	42.6	42.9
Average Service	8.6	9.3
Percent Male	41.3%	42.6%
Average Annual Pay	\$42,278	\$38,516
Total Covered Payroll	\$326,975,160	\$273,425,948

Terminated Vested Participants

General Members

	June 30, 2002	June 30, 2000
Number	1,189	1,061
Average Age	47.6	47.2
Percent Male	41.7%	40.6%

Safety Members

Number	78	69
Average Age	43.7	44.0
Percent Male	84.6%	87.0%

All Members

Number	1,267	1,130
Average Age	47.4	47.0
Percent Male	44.3%	43.5%

Retired Participants

General Members

Service Retirements and Beneficiaries

	<i>June 30, 2002</i>	<i>June 30, 2000</i>
Number	3,137	2,761
Average Age	69.4	70.0
Percent Male	37.6%	36.5%
Average Monthly Benefit	\$1,702	\$1,123

Disabled

Number	150	140
Average Age	66.6	65.8
Percent Male	41.3%	45.7%
Average Monthly Benefit	\$1,308	\$877

Total General

Number	3,287	2,901
Average Age	69.3	69.8
Percent Male	37.8%	37.0%
Average Monthly Benefit	\$1,684	\$1,111

2002 Benefits include settlement benefits, except for Health benefits. Also included are purchasing power benefits. 2000 data are as shown in the report of the previous actuary, and exclude the \$15 per year of service supplemental benefit.

Safety Members

Service Retirements and Beneficiaries

June 30, 2002

June 30, 2000

Number	344	268
Average Age	63.9	66.3
Percent Male	77.6%	72.4%
Average Monthly Benefit	\$3,420	\$2,130

Disabled

Number	82	62
Average Age	53.3	55.1
Percent Male	74.4%	77.4%
Average Monthly Benefit	\$2,178	\$1,743

Total Safety

Number	426	330
Average Age	61.9	63.6
Percent Male	77.0%	75.8%
Average Monthly Benefit	\$3,181	\$1,915

2002 Benefits include settlement benefits, except for Health benefits. Also included are purchasing power benefits. 2000 data are as shown in the report of the previous actuary, and exclude the \$15 per year of service supplemental benefit.

Total Members

Service Retirements and Beneficiaries

June 30, 2002

June 30, 2000

Number	3,481	3,029
Average Age	68.8	69.6
Percent Male	42.2%	39.9%
Average Monthly Benefit	\$1,872	\$1,197

Disabled

Number	232	202
Average Age	65.0	62.5
Percent Male	45.1%	55.4%
Average Monthly Benefit	\$1,615	\$1,143

Total Retirees

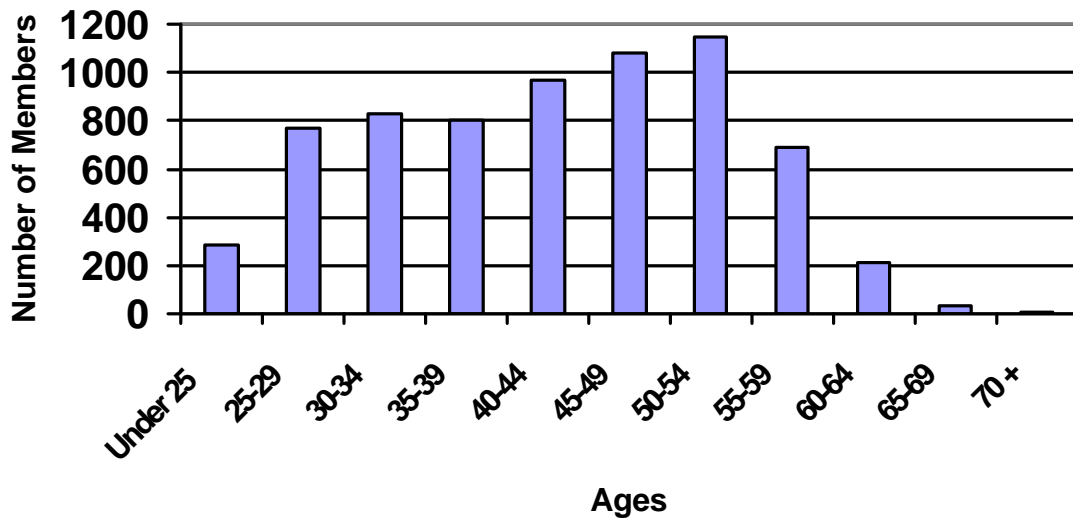
Number	3,713	3,231
Average Age	68.4	69.2
Percent Male	42.3%	40.9%
Average Monthly Benefit	\$1,856	\$1,193

2002 Benefits include settlement benefits, except for Health benefits. Also included are purchasing power benefits. 2000 data are as shown in the report of the previous actuary, and exclude the \$15 per year of service supplemental benefit.

Active General Members by Age and Service as of June 30, 2012

Service	Under								
>>	1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Age									
Under									
25	133	147	3	0	0	0	0	0	283
25-29	165	559	42	0	0	0	0	0	766
30-34	131	441	198	59	0	0	0	0	829
35-39	93	324	186	178	18	3	0	0	802
40-44	84	322	178	235	86	56	3	0	964
45-49	81	296	171	226	110	153	39	2	1,078
50-54	71	247	175	224	131	131	131	39	1,149
55-59	34	142	91	146	77	62	85	49	686
60-64	5	46	36	58	27	18	16	6	212
65-69	1	11	3	9	7	2	4	0	37
70 +	0	1	0	3	0	0	0	1	5
Total	798	2,536	1,083	1,138	456	425	278	97	6,811

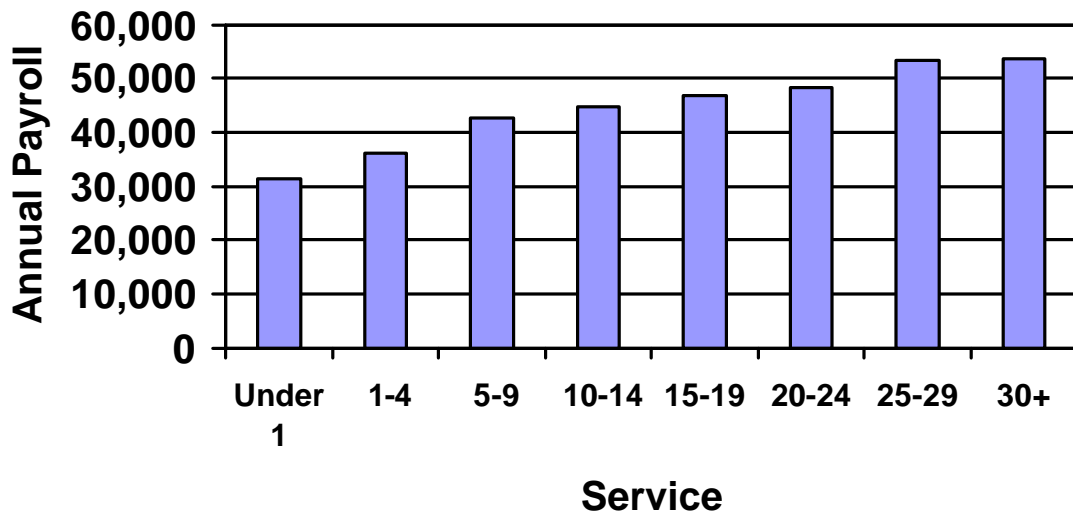
Active General Members by Age



Average Annual Full-Time Compensation for General Members by Age and Service as of June 30, 2002

Service	Under									
>>	1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total	
Age										
Under										
25	25,959	26,654	30,507	0	0	0	0	0	26,368	
25-29	28,393	32,520	37,952	0	0	0	0	0	31,929	
30-34	31,257	36,009	42,779	37,185	0	0	0	0	36,959	
35-39	33,671	36,619	43,303	43,148	36,368	42,822	0	0	39,294	
40-44	32,358	36,375	45,124	46,587	46,585	44,587	33,739	0	41,509	
45-49	35,403	39,045	41,568	43,840	47,043	47,988	46,691	38,233	42,537	
50-54	35,699	39,639	40,098	44,508	46,483	50,016	56,149	57,171	44,855	
55-59	34,487	41,431	46,757	49,341	47,854	50,555	53,643	50,418	47,178	
60-64	46,613	42,945	46,469	41,784	52,215	37,218	50,532	58,140	45,009	
65-69	58,500	58,352	27,794	69,978	41,179	82,368	46,514	0	55,475	
70 +	0	35,620	0	31,401	0	0	0	73,190	40,603	
Total	31,263	36,056	42,824	44,860	46,727	48,208	53,352	53,594	40,470	

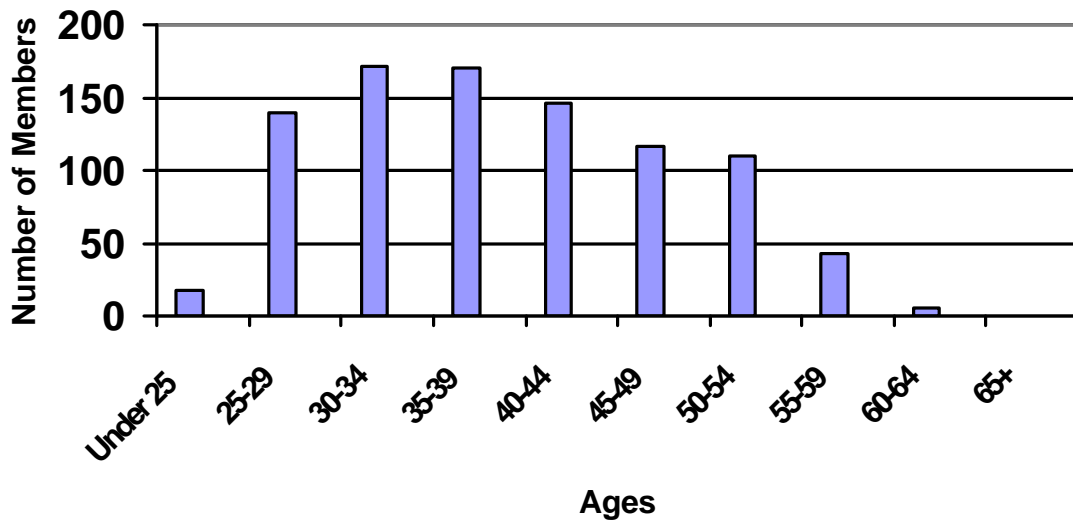
General Member Pay by Service



Active Safety Members by Age and Service as of June 30, 2002

Service	Under									
>>	1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total	
Age										
Under										
25	8	10	0	0	0	0	0	0	18	
25-29	20	101	19	0	0	0	0	0	140	
30-34	11	71	76	14	0	0	0	0	172	
35-39	7	31	54	75	4	0	0	0	171	
40-44	2	21	22	55	36	10	0	0	146	
45-49	1	2	12	26	16	43	17	0	117	
50-54	0	5	14	28	7	23	24	9	110	
55-59	0	7	11	7	5	2	10	1	43	
60-64	0	1	3	2	0	0	0	0	6	
65-69	0	0	0	0	0	0	0	0	0	
70 +	0	0	0	0	0	0	0	0	0	
Total	49	249	211	207	68	78	51	10	923	

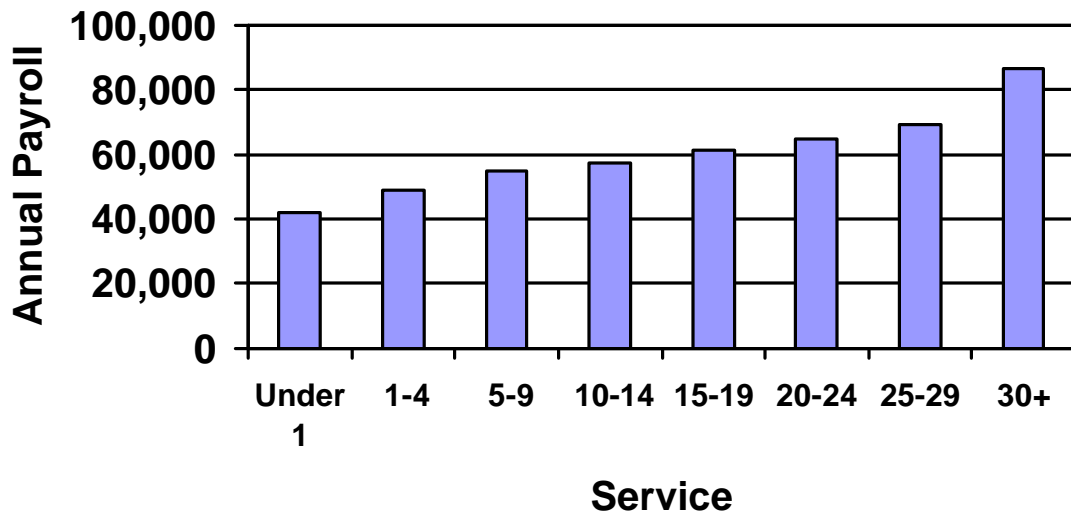
Active Safety Members by Age



Average Annual Full-Time Compensation for Safety Members by Age and Service as of June 30, 2002

Service >>	Under 1	1-4	5-9	10-14	15-19	20-24	25-29	30 +	Total
Age Under									
25	41,243	44,950	0	0	0	0	0	0	43,303
25-29	41,208	48,316	55,569	0	0	0	0	0	48,285
30-34	44,751	50,161	54,574	55,947	0	0	0	0	52,236
35-39	39,615	49,082	53,374	58,106	63,239	0	0	0	54,339
40-44	43,830	47,976	56,986	57,469	62,231	65,687	0	0	57,581
45-49	57,174	40,738	52,284	55,749	62,568	65,249	72,159	0	61,958
50-54	0	44,706	53,476	57,752	57,953	62,709	67,357	81,050	61,666
55-59	0	56,864	61,441	58,689	52,507	76,370	69,625	135,405	63,527
60-64	0	41,210	62,628	56,841	0	0	0	0	57,129
65-69	0	0	0	0	0	0	0	0	0
70 +	0	0	0	0	0	0	0	0	0
Total	42,214	48,852	54,877	57,454	61,214	64,842	69,403	86,486	55,611

Safety Member Pay by Service



K. Data Adjustments

The member data for the June 30, 2002 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 the same database used to calculate benefit amounts for retiring members. The computer program used to extract actuarial valuation data from this database is new, and will need 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 keep data in the manner in which it will be kept in the future. 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.

Below is a list of the modifications, adjustments, and assumptions that were made.

Adjustments to Plan Compensation

- **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. This information was not provided in prior valuations. Using this information, pay amounts were adjusted to full-time equivalent for all employees.
- **Salary data for all active employees.** The program extracting pay information from the FCERA database into the actuarial file cannot distinguish between base pay and other types of special pay. The program simply provides the actuary with the most recent pay period data prior to the valuation date. For people receiving special payouts such as Annual Leave, Car Allowance pay or Holiday Worked pay, the pay data in the extract file may not be the best indicator of a person's on-going compensation. Where the pay for the current valuation was twice the previous years' pay amounts, a sample group was researched and it was determined that these pay amounts were annual leave cash outs. For this group, all salary data was halved for the valuation analysis.
- **Salary data for deferred vested members who have reciprocity with other systems.** For those members who have reciprocity with other retirement systems, and are no longer actively working in Fresno County, the final pay used to determine their retirement benefits would be the highest pay earned in either system. Reciprocal system pay information is provided individually for these members. As data comes in, it is entered into the FCERA database. However,

once the data is in the database, there is no way to determine how recent this information is. Some pay information is from the current year, and other pay information is as much as twenty years old. For valuation purposes, we assumed that all pay is as of the person's termination date, and is projected accordingly into the future.

Adjustments to Service

- **Service for deferred vested members.** In previous valuations, the actuary calculated service as elapsed time from date of entry to termination and ignored any calculated service amounts provided by the Retirement Office, which took into account breaks in service, service buy-backs, or part-time accruals of service. After reviewing a sample of the service calculations prepared by the Retirement Office, we determined that this data was generally reliable and calculated benefits based on the service provided.
- **Service for active members.** In previous valuations, the actuary calculated service as elapsed time from date of entry to the valuation date and ignored any calculated service amounts provided by the Retirement Office, which took into account breaks in service, service buy-backs, or part-time accruals of service. After reviewing a sample of the service calculations prepared by the Retirement Office, we determined that this data was generally reliable and calculated benefits based on the service provided.
- **Annual Leave conversions to service.** The 2002 valuation is the first valuation which 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.

Adjustments to Member Status or Classification

- **“Extra Help” employees and members on extended Leaves of Absence.** Extra Help employees are generally not covered under FCERA. However, some current extra help employees were members of FCERA and still have contributions on deposit with the system. If such members have at least five years of service in the system, this valuation considers them to be deferred vested. For “active” members who appear to have been on a leave of absence for more than a year, and have at least five years of service in the system, this

valuation considers them as deferred vested members. Those with less than five years of service were considered to be pending withdrawal of their account balances.

- **Active members on Leaves of Absence.** “Active” members who appear to have been on a leave of absence for less than one year are included as ordinary active members in the valuation. Previous years’ actuarial valuations apparently included all those on LOA to be active, regardless of how long their status had remained LOA.
- **Determination of reciprocity for deferred members.** For those members who have not yet notified the system of their reciprocal (if any) status, or whose data is incomplete in the database, those with more than five years of service are considered not to be reciprocal, and those with less than 5 years are considered to be reciprocal members.
- **General or Safety Membership.** When a member retires, the computer screens used by the Retirement Office staff to record this change in a member’s status automatically fills in the Membership field with “General”, regardless of what the person’s active Membership really is. The result is Safety members who show up as General members in the retired data set. Whenever membership changed from Safety to General, we edited it to be Safety. Membership changing from General to Safety was assumed to be deliberately done and therefore left as Safety.

Adjustments to Benefit or Account Balances

- **Interest on Employee Contribution Balances.** The June 30, 2002 data provided by FCERA included contribution balances that contained employee contributions made through June 30, 2002, but interest crediting was only done through June 30, 2001. Interest at the proper rate was applied to the end of year balance given in the data.
- **Health Benefit Amounts not in extract data file.** Retiree health benefits are calculated based on the service amounts in the retiree’s record. We have relied upon the Retirement Office data in this case. We determined the program that was provided to the retiree on the basis of an estimated Entry Date. The estimated Entry Date was calculated by subtracting years of service from Date of Retirement. Sample checks of a few records provided a match between our calculations and the actual health benefits paid.
- **No split of retiree’s COLA benefit between pre-Ventura Settlement benefits and the new Supplemental Benefits.** The current FCERA database only contains a single COLA field, a single field for the Settlement Section 8 benefits (\$15 per year of service), and a single field for the Settlement Section 6 benefits (for those retiring after the settlement date, the difference between the new benefits and the old benefits). For valuation purposes, the COLA field was split into pre-Ventura COLA and Section 8 benefits COLA. The Section 8 benefits COLA was calculated as the amount

of two years of 3% cola on the amount of the Section 8 benefit. This is a very good approximation for this year's valuation. It is assumed that there is currently no COLA on the Section 6 benefits, which is a very small amount for 2002, but which will grow larger in future years. In the future, the FCERA database will need to be modified to accommodate these changes in benefits.

Adjustments for Missing or Changing Data

- **Beneficiaries of retired members.** In the FCERA database, information on a retiree's beneficiary is kept, even if there will be no continuing benefit paid upon the death of the retiree. For example, a retiree with the unmodified benefit option who has no spouse may often provide a child's name as the recipient of any cash out balance payable upon his or her death. A field in the database distinguishes a spouse from a child in the beneficiary information section. It appears that in previous valuations, the actuary may have used all beneficiary information in the calculation of the future stream of benefit payments. For the 2002 valuation, we have assumed that the data in the Beneficiary Relationship field is accurate. Unless that field contains the code representing a spouse, all Unmodified and Unmodified TAO benefits are considered to be payable for the single life of the retiree with no continuance upon death. This applies to both pension and health benefits.
- **Retirees with missing retirement option.** We have assumed that retirees with missing information are service retirees who have chosen the unmodified option.
- **Changes in Retirement Date from previous years' data.** For those retirees and beneficiaries whose retirement date changed from that in previous years' datasets, the previous information was restored. It appears there is a problem with the extraction program. This program is not always providing the original retiree's retirement date. Under certain circumstances, the retiree's date of death is provided as the Retirement Date for a beneficiary. The valuation must use the original retiree's date of retirement to properly calculate the purchasing power amounts.

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 has improved upon the data used in the prior valuation as June 30, 2000. Staff has researched and edited their database based on data issues raised in an interim study performed as of June 30, 2001.

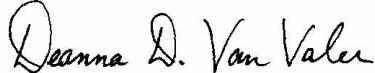
L. Actuarial Certification

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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May 2003