

January 8, 2003

**Sacramento County Employees' Retirement  
System**

Actuarial Valuation Report  
As of June 30, 2002

**MERCER**  
Human Resource Consulting



January 8, 2003

Board of Retirement  
Sacramento County Employees'  
Retirement System  
980 - 9<sup>th</sup> Street, Suite 1800  
Sacramento, California 95814

Dear Members of the Board:

We are pleased to present the actuarial valuation for the Sacramento County Employees' Retirement System prepared as of June 30, 2002 by Mercer Human Resource Consulting, Inc. The report includes:

- (1) a determination of the recommended employer contribution rates. These rates are to be effective July 1, 2003;
- (2) a determination of the recommended member contribution rates, also to be effective on July 1, 2003;
- (3) a determination of the funded status as of June 30, 2002; and
- (4) financial reporting and disclosure information pursuant to applicable accounting standards.

Please note that the results in this report have been prepared using the retirement benefit formulas in effect as of June 30, 2002. They will have to be revised if the employer adopts new retirement benefits formulas prior to July 1, 2003.

This report conforms with the requirements of the governing state and local statutes, accounting rules, and generally accepted actuarial principles and practices.

This report reflects the impact on funding status and contribution rates of the Retirement Board's expansion of the pay items includable in Earnable Compensation in response to the 1997 California Supreme Court decision in the Ventura County Deputy Sheriff's System vs. Board of Retirement, Ventura County Employees' Retirement System. This report assumes no retroactive application of the Ventura decision.

We have calculated the employer and member contribution rates assuming:

- The Reserve for Interest Fluctuations is retained at 2.5%; and
- The Board will not transfer any excess earnings to reduce member and employer contribution rates.


We have provided in the report the amount that would be required to be transferred from excess earnings to maintain member and employer contribution rates at the same level determined in the June 30, 2001 valuation, for information purposes only.

The undersigned are Members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Sincerely,



Andy Yeung, ASA, EA, MAAA



Marcia L. Chapman, FSA, EA, MAAA

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## Actuarial Certification

The annual actuarial valuation required for the Sacramento County Employees' Retirement System has been prepared as of June 30, 2002 by Mercer Human Resource Consulting, Inc. In preparing this valuation, we have employed generally accepted actuarial methods and assumptions to determine a sound value for the System's assets, liability and future contribution requirements. Our calculations are based upon member data and unaudited financial information provided to us by the System's staff. This data has not been audited by us, but it has been reviewed and found to be consistent, both internally and with prior years' data.

The contribution requirements are determined as a percentage of payroll. The primary funding objective of the System is to determine employer rates required to provide for both normal cost and a contribution to amortize the unfunded actuarial accrued liability. The amortization period for the unfunded actuarial accrued liability is 20 years as of June 30, 2002. The contribution to the unfunded actuarial accrued liability (which is currently negative for the County, resulting in a rate credit) is calculated to remain level as a percentage of future payroll (including projected payroll for future members). The dollar amount of payments (credits) will increase with payroll at a rate of 4.25% per year. The period for amortizing the unfunded actuarial accrued liability is set by the Board of Retirement.

The County issued Pension Obligation Bonds on July 5, 1995 to fully fund its unfunded actuarial accrued liability calculated as of June 30, 1994. Districts did not participate in the bond issue, so they are required to contribute at a higher level.

Contribution levels are recommended by the Actuary and adopted by the Board each year. The ratio of Actuarial Value of Assets to Actuarial Accrued Liabilities decreased from 107.7% to 107.1% during the year.

The results in this valuation were based on our recommended interest and inflation assumptions of 8.00% and 4.25% developed in this report. Other important assumptions included the demographic and salary increase assumptions adopted by the board in the last triennial experience study as of June 30, 2001.

In our opinion, the combined operation of the assumptions and methods applied in this valuation fairly represent past and anticipated future experience of the System and meet the parameters required by GASB Statement 25.

A list of the supporting schedules we prepared for inclusion in the Actuarial and Financial Sections of the System's CAFR report is provided below:

- (1) Schedule of Active Member Valuation Data
- (2) Retirees and beneficiaries Added to and Removed From Retiree Payroll
- (3) Solvency Tests
- (4) Actuarial Analysis of Financial Experience
- (5) Schedule of Average Benefit Payments for Retirees and Beneficiaries

(6) Schedule of Funding Progress

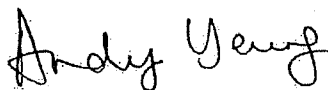
Future contribution requirements may differ from those determined in the valuation because of:

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

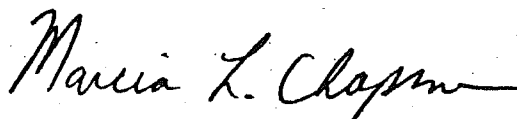
This report reflects the impact on funding status and contribution rates of the Retirement Board's expansion of the pay items includable in Earnable Compensation in response to the 1997 California Supreme Court decision in the Ventura County Deputy Sheriff's System vs. Board of Retirement, Ventura County Employees' Retirement System. This report assumes no retroactive application of the Ventura decision.

The undersigned are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Mercer Human Resource Consulting, Inc.



Andy Yeung, ASA, EA, MAAA



Marcia L. Chapman, FSA, EA, MAAA

January 8, 2003

Date

January 8, 2003

Date



## Board Member Summary of Valuation Results

### Summary of Recommendations

Employer Contributions Rates*	June 30, 2002	June 30, 2001	Increase/ (Decrease)	
Normal Cost Rate:	10.43%	10.51%	-0.08%	
Rate of Contribution to Unfunded Actuarial Accrued Liability:	-2.51%	-2.84%	0.33%	
Total Employer Rate:	7.92%	7.67%	0.25%	
Estimated Annual Amount:	\$55,104,000	\$53,326,000	\$1,778,000	

Member Contribution Rates**	June 30, 2002	June 30, 2001	Increase/ (Decrease)	Average Change per Bi-Week
<i>General Members</i>				
Tier 1	7.25%	7.03%	0.22%	\$ 5.29
Tier 2	5.98%	5.98%	0.00%	\$ -
Tier 3	6.45%	6.36%	0.09%	\$ 1.48
<i>Safety Members</i>				
Tier 1	9.81%	9.51%	0.30%	\$ 8.36
Tier 2	8.97%	8.83%	0.14%	\$ 2.91
Estimated Annual Amount	\$ 40,375,000	\$ 39,773,000	\$ 602,000	

Actuarial Assumptions	June 30, 2002	June 30, 2001	Increase/ (Decrease)
Annual Inflation Rate:	4.25%	4.25%	0.00%
Annual Investment Return:	8.00%	8.00%	0.00%
Average Annual Salary Increases:	5.75%	5.75%	0.00%

Other assumptions are based upon the June 30, 2001 experience analysis

\* Result based on recommended study (8.0% interest, 4.25% inflation and 1.50% average merit and longevity assumptions.)

\*\* Based on single full-rates payable by member.

## Board Member Summary of Valuation Results

### Summary of Significant Actuarial Statistics and Measures

	June 30, 2002	June 30, 2001	Increase/ (Decrease)
<b>System Membership</b>			
<i>Active Members</i>			
1. Number of Members	14,033	12,991	8%
2. Total Active Payroll	\$695,259,000	\$634,798,000	10%
3. Average Monthly Salary	\$4,129	\$4,072	1%
<i>Retired Members</i>			
1. Number of Members			
Service Retirement	4,119	3,975	4%
Disability Retirement	674	651	4%
Beneficiaries	949	900	5%
Total	<u>5,742</u>	<u>5,526</u>	4%
2. Total Retired Payroll	\$108,538,000	\$98,600,000	10%
3. Average Monthly Pension	\$1,575	\$1,487	6%
<i>Inactive Vested Members</i>			
1. Number of Members	1,994	2,146	(7%)
<b>Asset Values (Net)</b>			
Market Value	\$3,199,234,000	\$3,432,826,000	(7%)
Return on Market Value	-5.81%	-5.74%	(2.53%)
Actuarial Value	\$3,839,081,000	\$3,718,198,000	3%
Return on Actuarial Value	4.16%	9.52%	(2.06%)
<b>Liability Values</b>			
Actuarial Accrued Liability	\$3,586,250,000	\$3,451,864,000	4%
Unfunded Actuarial Accrued Liability (UAAL)	(\$252,831,000)	(\$266,334,000)	(5%)
<b>Funding Ratios</b>			
GASB No. 25	107.1%	107.7%	-1%

## Board Member Summary of Valuation Results

### Explanation of Changes in Actuarial Values

Impact on Contribution Rates (Before Board of Retirement Transfer)

Following is the estimated impact on 2003-2004 fiscal year contribution rates of the recommendations in this study.

Summary of Gain/ Loss	Rate Impact	Dollar Impact
June 30, 2001 Employer Rate	7.67% \$	53,326,000
Investment return greater than expected	-0.08% \$	(556,000)
Transfer to Offset Future Employer Contributions	0.00% \$	-
Salary increase greater than expected	0.05% \$	351,000
Retiree COLA greater than expected	0.04% \$	261,000
Dilution of Prefunded Actuarial Accrued Liability Credit	0.14% \$	999,000
Impact of Assumption Changes	0.00% \$	-
Miscellaneous (gains)/ losses	0.10% \$	723,000
Subtotal	0.25% \$	1,778,000
June 30, 2002 Employer Rate	7.92% \$	55,104,000

### Explanation of Gain/ Loss Items

Investment return greater than expected - The System's actuarial valuation assets earned 0.20% in excess of the 8% return assumption.

Salary increase greater than expected - The average salary for continuing actives was slightly higher than the expected increase of 5.75%.

Retiree Cola - Average COLA increase for retirees was greater than expected.

Dilution of Prefunded Actuarial Accrued Liability Credit - The aggregate payroll increased by 9.52% and was higher than the expected increase of 4.25%. The unexpected increase diluted the percentage of payroll credit drawn from the Prefunded Actuarial Accrued Liability.

Miscellaneous (gains)/ losses - Other actuarial gains or losses with untraced sources.

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## Board Member Summary of Valuation Results

### Explanation of Changes in Actuarial Values *(continued)*

#### Member Contribution Rates

The average member rate increases as a result of spreading the unused COLA subsidy over a larger payroll base (including new entrants during 2001–2002).

#### Funding Ratios

The change in funding ratio is due to actuarial experience as detailed under Employer Contribution Rate above.

#### Asset Valuation Method

There were no changes to the asset valuation method from the June 30, 2001 valuation.

## Board Member Summary of Valuation Results

### Transfers Required to Maintain Contribution Rates At Last Year's Level

We have provided the transfer amounts necessary to maintain employer and member contribution rates at the same level determined in the June 30, 2001 valuation. The following transfers required from excess earnings are provided for information purposes only, since they were not assumed in this valuation.

	<u>Transfers Required</u>
Maintain Employer's Rate at Last Year's Level	\$26,000,000
Maintain Member's Rate at Last Year's Level*	\$6,000,000
Total	<hr/> \$32,000,000

\* Please note that in determining the transfer amount, we assume that the Board would transfer an amount sufficient to maintain the total (basic plus COLA) member rate at the level determined in the June 30, 2001 valuation.

Again, please note that the rates included in this Report assume the Board will not transfer any excess earnings to reduce employer and member contribution rates

## Economic Actuarial Assumptions

### Introduction

Economic actuarial assumptions are of three types:

1. *Inflation* results from increases in prices of goods and services. Inflation drives employee salary increases, retiree cost-of-living increases and the returns that investors demand from securities markets and other investments. For those reasons, the inflation assumption underlies all economic actuarial assumptions. This assumption also determines the rate at which payments to the Unfunded Actuarial Accrued Liability increase each year.
2. *Investment Return* has a powerful influence on a retirement System's cost to employers and members. The more money earned from investments, the less needs to be contributed. Assuming a typical new member's pension is funded over a 25 year career and that employee receives pension checks for 20 years after retirement, a 1% higher rate of investment return will reduce required contributions by about 20% (all else remaining equal). For this reason, setting the investment return assumption is an important decision.
3. *Salary Increases* have a significant impact on the benefit members will receive at retirement. This assumption contains two components -- cost-of-living (inflation) increases plus pay raises that members receive as a result of promotions and step increases.

### Setting Economic Assumptions

The Actuarial Standards Board has issued a practice standard entitled "Selection of Economic Assumptions for Measuring Pension Obligations". This Actuarial Standard of Practice (SOP) is designed to provide pension actuaries guidance in the setting of economic assumptions. Section 3.4 of the SOP provides the following general steps for selecting economic assumptions for a specific measurement:

1. Identify components, if any, of each assumption and evaluate relevant data;
2. Develop a best-estimate range for each economic assumption required for the measurement, reflecting appropriate measurement factors; and
3. Further evaluate measurement-specific factors and select a specific point within the best estimate range.

After completing these steps for each assumption, the actuary should review the set of economic assumptions for reasonableness and consistency and make any needed changes.

The relevant data referred to in step 1 should consist of appropriate historical and recent economic data. In Section 3.3, the SOP recommends that the actuary consider recent economic data, "however, the actuary should not give undue weight to recent experience."

The remainder of this Section provides the analytical development behind each of the three economic assumptions.

## Economic Actuarial Assumptions

### Inflation

#### *Recommendation*

We recommend that the Board continue using the current inflation assumption of 4.25%.

The analysis supporting our recommendation follows.

#### *Setting the Assumption*

The rate of inflation has varied significantly over time. The following chart shows the annual increases in the national Consumer Price Index over the last 61 years:

## Economic Actuarial Assumptions

### *CPI History*

Table 1 provides the annualized increases in the Consumer Price Index for recent and extended periods over the last 60 years.

**Table 1**  
**History of CPI Increases**  
**Expressed as an Annualized Average (1)**

Number of Years Ending 12/31/2001:	CPI
10	2.53%
20	3.22%
30	4.99%
40	4.53%
50	3.87%
60	4.15%

(1) Geometric average. CPI data is based upon US All City Average, CPI-U for years after 1979.

With the exception of the last 30-year period, which is heavily influenced by the high inflationary period between 1972 and 1981, inflation has typically ranged between about 3.00% and 4.50%. On the other hand, the last ten years have produced inflation somewhat below the bottom end of this range.

Please note that SCERS utilizes the Bay Area CPI in determining the annual adjustment to retired members' benefits. The average Bay Area CPI was about 4.1% during the last 5 years. After considering both long-term historical and recent trends, we have concluded that an appropriate range for long-term inflation is 3.50% to 4.50%.

### *Forecasts of Inflation*

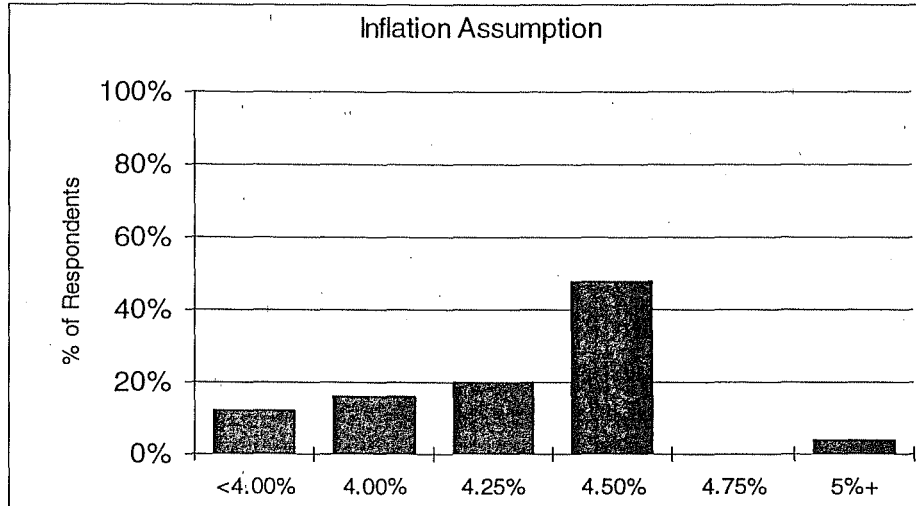
We believe it is valuable to examine inflation assumptions adopted by similarly situated public retirement Systems as an indicator of their long-term inflation expectations. Charts 2 and 3 provide the inflation assumptions used by the 25 California public retirement Systems who responded to Mercer's 2001 survey of economic actuarial assumptions, and the fifteen 1937 Act respondents, respectively.

The average inflation rate from the survey for the 25 Systems was about 4.25%. Rates used by reporting 1937 Act Systems averaged about 4.36%.



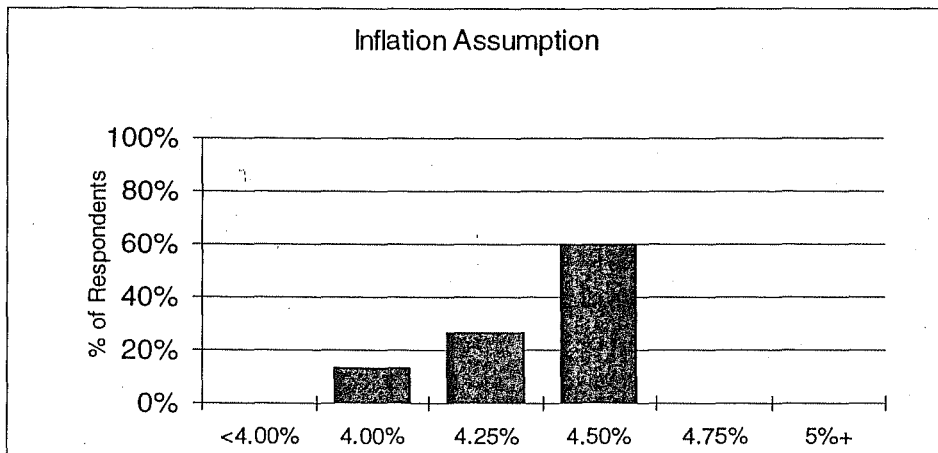
## Economic Actuarial Assumptions

**Chart 2 - Comparisons of Economic Actuarial Assumptions  
All Respondents  
(based on 25 responses)**



Average	4.25%
25th Percentile	4.00%
50th Percentile	4.50%
75th Percentile	4.50%

**Chart 3 - Comparison of Economic Actuarial Assumptions  
37 Act County Respondents  
(based on 15 responses)**



Average	4.36%
25th Percentile	4.25%
50th Percentile	4.50%
75th Percentile	4.50%

## Economic Actuarial Assumptions

### *Treasury Yield Curves*

Inflation expectations implicit in Treasury yield curves can vary widely over a relatively short period of time. As a result, we have not included a Treasury yield analysis as part of our inflation assumption development.

### *Summary*

We conclude from our analysis that:

1. Historical inflation data indicates an assumption range of 3.5% to 4.5%.
2. Inflation forecasts inherent in inflation assumptions adopted by similarly situated retirement Systems are in the neighborhood of 4.25%.
3. Recent annual adjustments to retired member's benefits was about 4.1%.

Based on this data, we believe the current 4.25% long-term inflation assumption is still reasonable.

## Economic Actuarial Assumptions

### Investment Return

#### *Recommendation*

Based on the following analysis, we recommend that the Board keep the current investment return assumption at 8.00%.

#### *Setting the Assumption*

The actuarial SOP specifies that in addition to historical plan performance, the following data may be considered in setting the investment return assumption (Section 3.6.1):

- Forecasts of inflation
- Historical risk-free returns
- Real return or risk premium for each asset class
- Yields to maturity on fixed income government securities and corporate bonds

The first item has already been addressed in detail. The second item is the historical return on short term Treasury bills, such as 30 days, and is used to develop risk premiums for other asset classes. Our analysis will focus on the third item.

Section 3.6.3 of the actuarial SOP sets forth the following measurement-specific factors that should be considered in selecting the investment return assumption:

- Investment policy or asset allocation
- Expenses
- Investment manager performance

Each of these items will be addressed in the context of our analysis.

#### *Real Rate of Return on Investments*

The real rate of return on investments is a function of:

- The real rates of return on individual classes of assets within the investment portfolio;
- The relative proportion of the fund's total investments held in each class of securities (the "Asset Allocation");
- Expenses to be paid from earnings; and
- Reasonable risk (variability) adjustments.

Each of these four components is addressed separately.

#### *Real Returns on Classes of Securities*

Empirical studies of total real rates of return are available on most classes of securities in which the System invests. These studies are used to develop historical average real rates of return. These historical averages are adjusted considering any fundamental changes in the economy, changes in government regulation, and any other factors, which might affect their continued applicability.

## Economic Actuarial Assumptions

Many empirical studies have been carried out to measure historical real rates of return on various types of investment. One most frequently used is the Ibbotson Associates study. Investment consulting firms utilize that and other studies to derive expected long-term real rates of return for use in asset allocation models. These models serve as an aid to retirement plan fiduciaries in determining what proportion of the plans' investment portfolio to place in various classes of securities.

However, since that data is entirely historical it does not necessarily reflect future expectations. In this report, we have utilized the following detailed rate of return assumption by asset class developed by Mercer Investment Consulting. These investment return assumptions reflect our forward-looking rates of return expectations (for investment horizons of 10 years or more).

**Table 2**  
**Expected Asset Class Returns Net of Inflation (Real)**

<u>Asset Class</u>	<u>Total Real Return</u>
Large Stocks	6.2%
Small Stocks	6.7%
International Stocks	6.4%
Long Bonds	3.5%
Intermediate Bonds	3.0%
Real Estate	5.5%
Money Market	1.0%

### *Asset Allocation*

SCERS employs a third-party investment consultant to assist in establishing its target asset allocation and investment policy. The target asset allocation reflects the consultant's professional opinion on expected returns, the System's risk profile, prudent diversification, asset/liability matching, cash flow needs and other investment considerations. This target allocation is designed as a guidepost for balancing investments among asset classes. As such, it is the best indicator for the System's actual long-term asset allocation. The target asset allocation will be combined with the real rates of return on classes of securities to develop the expected gross real rate of return assumption for the fund's portfolio.

The current asset allocation utilized by SCERS is shown in Table 3.

## Economic Actuarial Assumptions

**Table 3**  
**SCERS Asset Allocation**  
**At Market Value as of June 30, 2002**

	<u>Current</u>	<u>Target</u>
Domestic Stocks	39%	40%
International Stocks	21%	20%
Bonds and Fixed Income	32%	30%
Real Estate	8%	10%
Cash and Equivalents and Short-Term	0%	0%

Applying the target asset allocation (Table 3) to the information in Table 2 results in a real return of approximately 5.29%. As you know, this rate of return is an average expectation and there is a reasonable range within which real returns are expected to fall. There are a number of additional factors which must be considered before arriving at an appropriate level for actuarial valuation purposes. These are discussed below.

### *Expenses to be Paid from Earnings*

The expected gross real rate of return must be reduced to reflect expenses to be charged against investment earnings. To the extent such charges are expected to be made in the future, the expense margin will be sufficient to cover:

- a) Administrative expenses (Section 31580.2);
- b) The cost of actuarial valuations (Section 31596.1(a));
- c) The cost of bank custodial services (Section 31596.1(b));
- d) Fees related to investment in deeds of trust or mortgages (Section 31596.1(c));
- e) Investment expenses (Section 31596.1(d)); and
- f) The cost of legal counsel (Section 31529.5).

(References are to sections of the County Employees' Retirement Law of 1937.)

The System's actual expenses over the last 3 to 5 years (coupled with any expected changes in future expense levels) will be used to develop the expected expense charge. This expected charge will be applied against the expected gross real rate of return to produce a net real rate of return assumption.

Table 4 provides the expenses of the fund as a percentage of assets for the 5 years ending June 30, 2002.

## Economic Actuarial Assumptions

**Table 4**  
Expenses as a Percentage of Average Assets

<u>Calendar Year</u>	<u>Administrative</u>	<u>Investment</u>	<u>Total</u>
1998	0.12%	0.29%	0.41%
1999	0.12%	0.26%	0.38%
2000	0.10%	0.33%	0.43%
2001	0.11%	0.24%	0.35%
2002	0.17%	0.30%	0.47%
Average	0.12%	0.28%	0.40%

The administrative and investment expenses for 2002 were higher than 2001 as a percent of assets because there was a reduction in the market value as of June 30, 2002. We continue to recommend our current expense percentage of 0.40% as an estimate of future expenses. Netting this from the expected real rate of return of 5.29% results in a net real rate of return of 4.89%.

### *Risk Adjustment*

The net real rate of return assumption should reflect the risk associated with not achieving expectations. This is developed by considering:

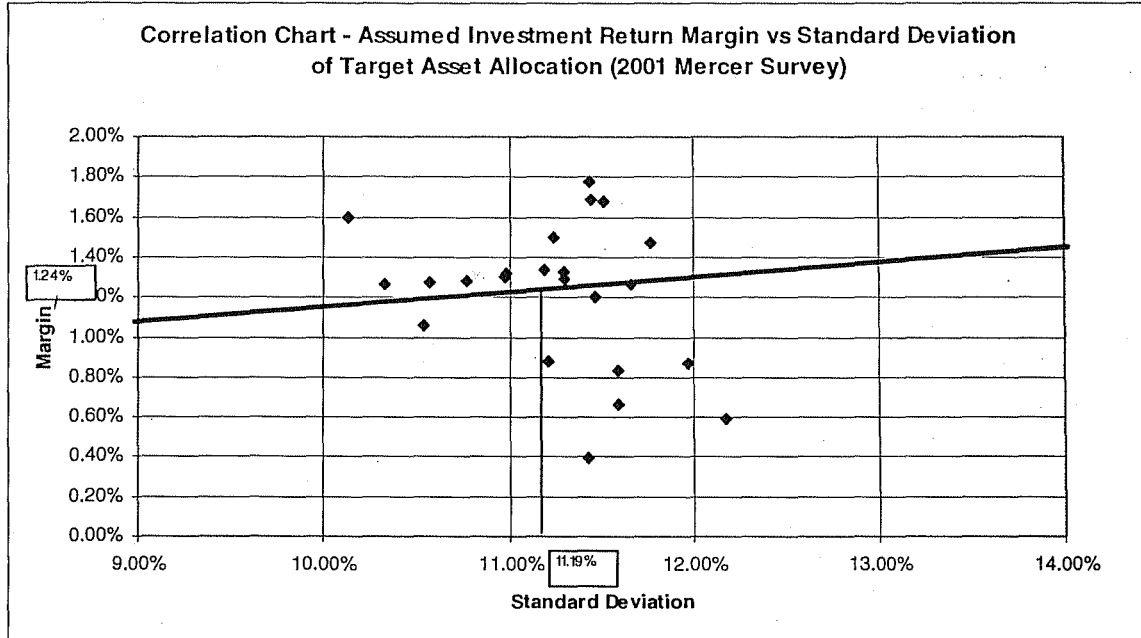
- The probability that actual future returns within asset classes will deviate statistically from historical averages;
- The effect that asset diversification will have on dampening statistical fluctuations of future returns; and
- The expectation that fund managers will underperform or outperform the general market indices upon which the real rates of return on individual classes of securities are measured.

Annual real rates of return have varied substantially over the years. For example, even if we expect the averages displayed in Table 2 to be a reasonable estimate of real returns in the future, we know there is some likelihood that future real rates will be more or less than historical averages. The risk lies in setting too high an investment earnings assumption, which leads to future losses and higher employer contributions. The risk adjustment helps protect against such an occurrence.

In order to determine an appropriate risk adjustment, we utilize a distribution of risk margins used by 25 California public retirement Systems (Chart 4) developed from Mercer's 2001 survey of economic assumptions. From this survey we are able to identify implicit risk adjustment within a System's investment return assumption versus the System's risk level as measured by the standard deviation of their current asset allocation. The diagram in Chart 4 provides that relationship.

## Economic Actuarial Assumptions

Chart 4



As can be observed in the chart, the System's risk adjustment so calculated would be approximately 1.24%, based on the calculation of the portfolio's annual standard deviation of 11.19% (based on the System's target asset allocation).

## Economic Actuarial Assumptions

The following table provides a history of the risk adjustments implied in the System's investment return assumptions for the last five years:

<u>Actuarial Valuation Date</u>	<u>Risk Adjustment</u>
6/30/1997	1.45%
6/30/1998	1.45%
6/30/1999	1.39%
6/30/2000	1.57%
6/30/2001	1.28%
<b>Average</b>	<b>1.43%</b>

### *Investment Manager Performance*

Section 3.6.3.e. of the actuarial SOP states that:

Anticipating superior (or inferior) investment manager performance may be unduly optimistic (or pessimistic). Few investment managers consistently achieve significant above-market returns net of expenses over long periods. The plan sponsor may replace managers who consistently under perform market indices.

We concur with this statement, thus do not make any provision within our investment return assumption for superior or inferior performance relative to the market.

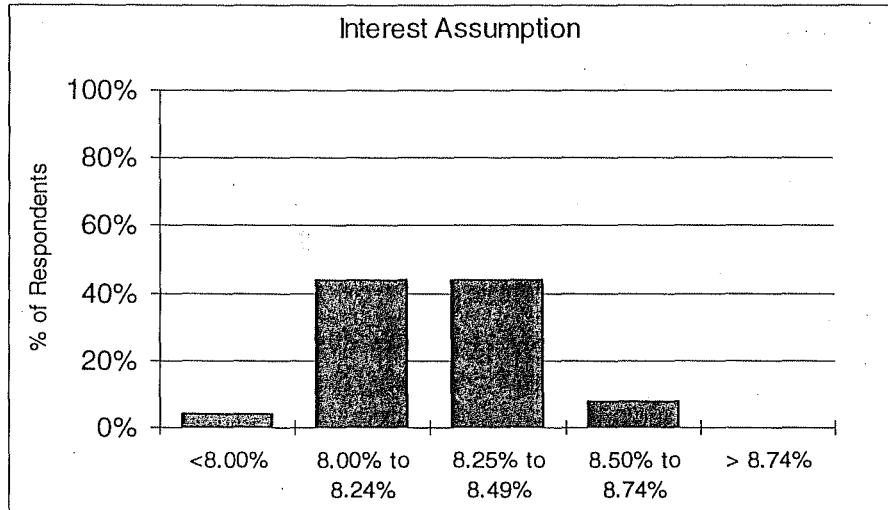
### *Comparison with Similarly Situated Retirement Systems*

Charts 5 and 6 provide the investment return assumptions used by the 25 California public retirement Systems who responded to Mercer's 2001 survey of the economic actuarial assumptions, and the 15 1937 Act respondents, respectively.



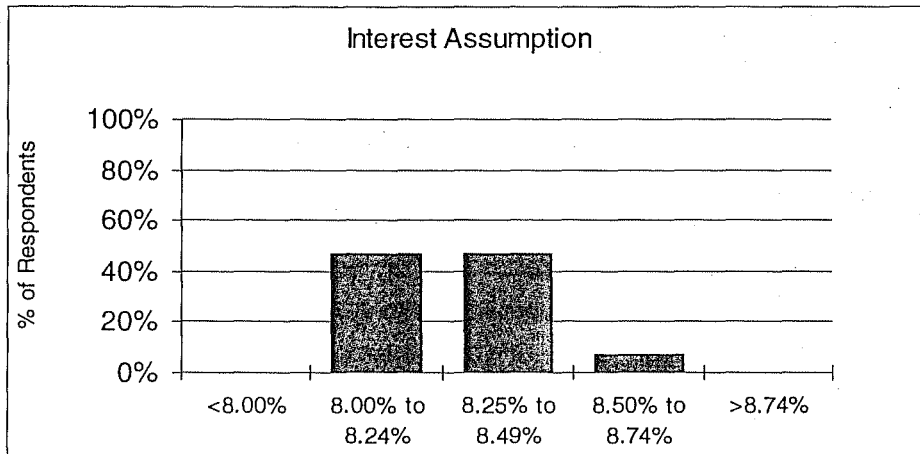
## Economic Actuarial Assumptions

**Chart 5 - Comparison of Economic Actuarial Assumptions  
All Respondents  
(based on 25 responses)**



Average	8.14%
25th Percentile	8.00%
50th Percentile	8.25%
75th Percentile	8.25%

**Chart 6 - Comparison of Economic Actuarial Assumptions  
37 Act County Respondents  
(based on 15 responses)**



Average	8.16%
25th Percentile	8.00%
50th Percentile	8.13%
75th Percentile	8.25%

## Economic Actuarial Assumptions

The average investment return rates from the survey for both of these groups is approximately 8.14%

### Development of Recommendation

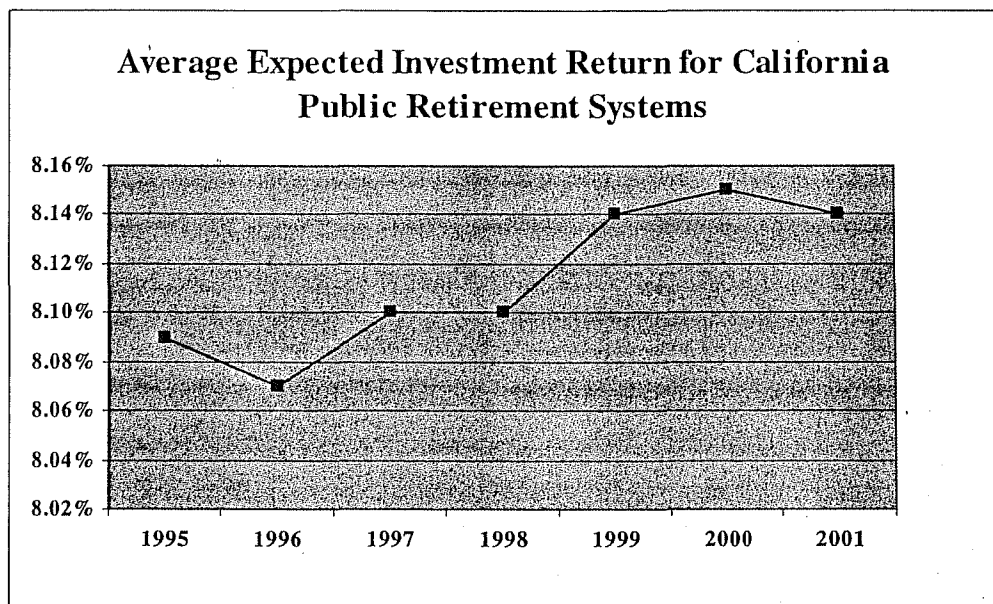
Based on the above analysis, we arrive at a real rate of return assumption of 3.65% (average net real rate of return of 4.89% minus risk adjustment of 1.24%). Combining this rate and the inflation assumption of 4.25% results in an expected return of 7.90%. Based on this result, we recommend maintaining an investment return assumption of 8.00%.

### Outlook for the Next Valuation

As you can see from the analysis above, the current investment return assumption is on the high side of the range we expect. We will be monitoring this assumption taking into consideration the trend towards lowering the forward looking rates of return expectations (for investment horizon of 10 years or more) which has taken place over the last few years.

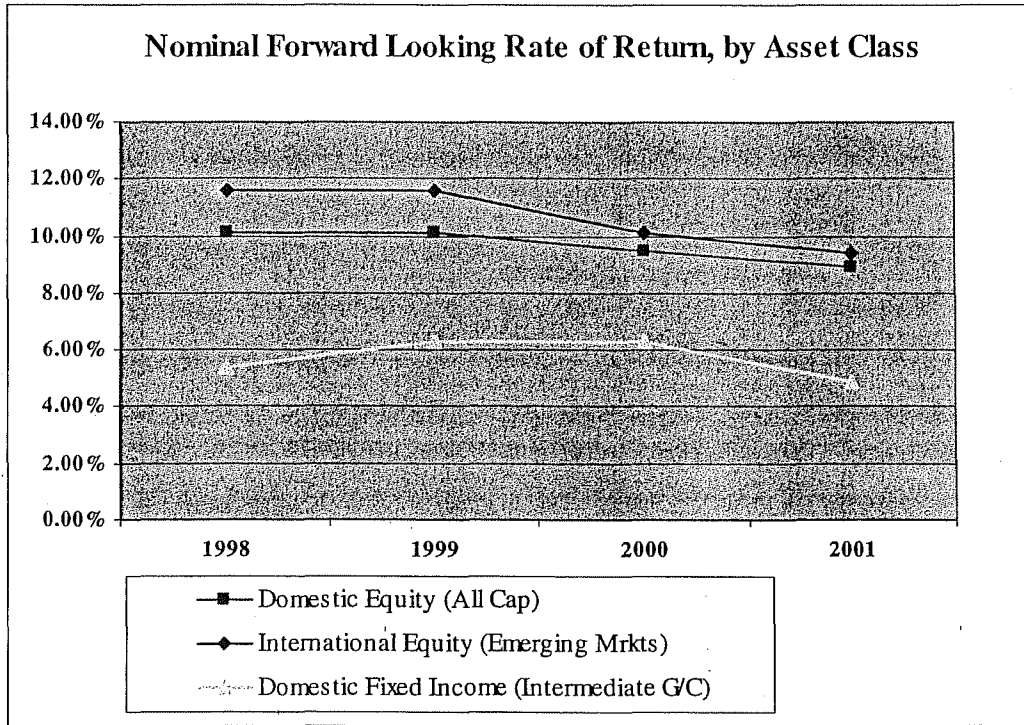
The following charts provide a comparison of the investment return assumptions utilized by California Public Retirement Systems and the change in the rates of return expectations prepared by Mercer. There is some movement in the survey toward lower investment return assumptions. However, as you can see from the graph, the movement is still small.

Chart 7



# Economic Actuarial Assumptions

Chart 8



## Economic Actuarial Assumptions

### Salary Increase Assumptions

#### Recommendations

#### Salary Increase Assumptions

The System's salary increase assumptions are comprised of two components:

- Inflation Rate
- Salary Scale

Salary increases are provided to employees in the form of cost-of-living adjustments to offset the debasement of pay levels caused by inflation. In addition to inflationary increases, active members will receive "real" salary increases (i.e., over inflation) as they advance through salary grades and receive promotions over their career.

As part of our analysis we have reviewed real salary increases received by members over the three years ending June 30, 2001. Members were grouped by service and age to determine how salary increases vary across these groups. We also reviewed the merit and longevity assumptions for other 1937 Act counties as a scale of reasonableness for the new assumptions. We recommend that the real salary increases be continued as a function of age rather than both age and years of service. Current experience does not support a years of service based assumption. Also, years of service based salary increase assumptions are uncommon in California county retirement Systems. The Board accepted the following recommended salary increase assumptions, as part of the triennial experience study as of June 30, 2001.

<b>Real Salary Increase Assumptions</b>		
	<b>General Members</b>	<b>Safety Members</b>
	Recommended Salary Increase Assumptions	Recommended Salary Increase Assumptions
Ages 20-24	7.0%	5.4%
Ages 25-29	4.0%	4.3%
Ages 30-34	2.8%	2.6%
Ages 35-39	2.3%	1.5%
Ages 40-44	2.0%	1.2%
Ages 45-49	1.7%	1.0%
Ages 50-54	1.3%	1.0%
Ages 55-59	0.9%	1.0%
Ages 60-64	0.8%	0.8%
Ages 65-69	0.7%	0.0%
Age 70+	0.4%	0.0%

## Economic Actuarial Assumptions

### Setting the Assumption

The Actuarial Standards Board has specified the following data be considered in setting the salary increase assumptions (Section 3.7):

- Employer's current compensation practice and any anticipated changes in this practice;
- Current compensation distributions by service or age;
- Historical compensation increases of employer and other employers in the same industry or geographic area; and
- Historical national wage and productivity increases.

In addition, the Standard of Practice states that the actuary should consider employer-specific compensation data, but the actuary must carefully weigh the credibility of this data when selecting the salary increase assumption.

The methodology used to construct the assumption is to utilize the inflation assumption as a base salary increase assumption. There is a sound economic reason for doing this. This is a long-term assumption and represents the expected annual increases in the cost of goods and services. In order for a member to maintain the same standard of living in the future as he or she does today, wages must at least keep up with inflation. If they do not, members will suffer a continuously eroding standard of living, which in turn will increase member turnover as workers seek jobs elsewhere that offer more competitive salaries. This creates obvious instability, which may occur for a short while, but eventually will have to return to equilibrium if the County and special districts are to continue as ongoing operating entities.

Once the inflation component of the salary increase assumption is set, the process turns to the selection of the real (inflation-free) salary increase assumption component.

### Real Salary Increases

In addition to inflation, member salaries are expected to increase due to:

- General increases which exceeded inflation ("Real Across-the-Board Salary Increases"); and
- Merit and longevity increases.

Please note that there was a relatively large difference between the recommended salary increase assumptions and the actual increases observed over the six years ending June 30, 2001. If that trend were to continue, we pointed out in last year's report that there might be a need to review the recommended salary increase assumptions again for this study.

However, when we reviewed this year's actual salary increases, the gap between the recommended and actual has narrowed and we recommend that the current salary increase assumptions be continued until the next triennial experience study.

### Real Across-the-Board Salary Increases

These are generally categorized as productivity increases because, in theory, they are generated from any activity that allows workers to produce goods and services more efficiently, thus cheaper. If these efficiencies result in increased revenues to the employer and are passed along as salary increases, Real Across-the-Board Salary Increases will result.

## Economic Actuarial Assumptions

There is currently no Real Across-the-Board Salary Increase assumption for the System.

As part of our analysis, we monitor the Bureau of Labor Statistics Employment Cost Index (ECI). The ECI was developed in the early 1970's to provide wage growth data free from the influence of employment shifts among industries and occupations. The ECI was expanded to include a separate index for state and local governments in 1981.

The State and Local Government Workers ECI data provides evidence that real wage growth for this sector has averaged about 0.83% since 1982. However, we believe this evidence does not require any change to our current assumption of no real Across-the-Board wage growth because the period since 1982 has been a period of low inflation. The average annual increase in total wage growth over this period was 4.12% – below our recommended 4.25% inflation assumption. This indicates that our inflation assumption is sufficient to predict total wage growth.

We will continue to monitor the ECI to determine whether more compelling evidence for a real wage growth assumption emerges.

## Economic Actuarial Assumptions

### Noneconomic Actuarial Assumptions

#### General

Noneconomic assumptions are based on observed experience by category of employment by age and/or service group.

The noneconomic assumptions were reviewed at the time of June 30, 2001 triennial experience investigation. Adjustments to the current assumptions were based upon a determination of the likelihood that the most recent experience could be produced as merely a statistical variation of the current assumptions.

If the most recent experience demonstrates a deviation from current assumptions which is deemed statistically significant, a credibility weighting is attached to this experience. The credibility weighting can vary significantly among the various components depending upon whether there is a low or high number of occurrences. The credibility weighting will also depend upon the presence of any non-recurring events that might affect the predictive ability of the recent experience.

Post-retirement mortality tables will generally be some variation of standard tables developed by actuarial professional organizations from a much wider base of data.

#### Components

1. Nonvested withdrawal
2. Service retirement
3. Disability retirement (service and nonservice connected)
4. Pre-retirement death benefits (while eligible for service retirement; before service retirement eligibility; service and nonservice connected)
5. Deferred retirement
6. Post-retirement mortality

Components 1 through 5 represent the probabilities of separation from active service due to various causes. Component 6 represents the length of time members will live after retirement.

#### *Separation from Active Service*

In the June 30, 2001 experience study, an analysis was carried out to determine the probability of members terminating from active service for various causes. The probabilities developed in that study are used as the basis of determining costs in this valuation.

The probabilities for each noneconomic assumption component are listed in Appendix B.

#### *Post-Retirement Mortality*

In the June 30, 2001 experience study, the mortality of members after service and after disability retirement was also analyzed. The life expectancies based on tables developed from that study are shown in Appendix B.

## Economic Actuarial Assumptions

### *Mortality Basis for Members' Basic Contribution Rates*

We have calculated member contribution rates utilizing a sex-independent mortality basis under Section 31676.1 and 31497.3 for General members, and Section 31664 for Safety members. The mortality table is the 1994 Group Annuity Mortality Table for males set back three years for General Members and no set back for Safety Members. In our opinion, these tables can reasonably be expected to represent the aggregate future mortality for each group and provide an adequate and equitable mortality basis for determining member contribution rates.



## Actuarial Valuation Methods

### Actuarial Funding Method

#### Responsibility of the Actuary

A retirement System is a long term proposition. It contains benefit promises that extend many decades into the future. The fiduciaries responsible for funding the System cannot wait until these promises become due before seeking out the money needed to pay for them. The actuary's primary responsibility is to assist the Board to structure a financial plan to advance fund the benefit promises of the System and to monitor its performance. This financial plan is more commonly referred to as an actuarial funding method.

#### Employer Contributions

Employer contributions consist of two components:

1. *Normal Cost* - That annual contribution rate which, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement-related benefits. Accumulation includes annual crediting of interest at the assumed investment earnings rate. The contribution rate is expressed as a level percentage of the member's compensation.
2. *Contribution to the Unfunded Actuarial Accrued Liability (UAAL)* - That annual contribution rate which, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earnings rate. The contribution (or rate credit in the case of a negative UAAL) is calculated to remain as a level percentage of future active member payroll (including payroll of new members as they enter the System) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments are scheduled to increase at the annual inflation rate of 4.25% along with expected payroll. The UAAL is being funded over the 20 years following June 30, 2002.

The actuarial funding method just described, which has been adopted by the Board, is called the Entry Age Normal Funding Method.

A more complete definition of the Unfunded Actuarial Accrued Liability and other actuarial terms is provided in the Glossary of Actuarial Terms which can be found in Appendix F.

#### Member Contributions

Articles 6 and 6.8 of the 1937 Act define the methodology to be used in the calculation of member basic contribution rates for General members and Safety members, respectively. The basic contribution rate for a member paying half rate (doubled for a member paying full rate) is determined as that percentage of compensation which, if paid annually from a member's first year of membership through age 60 for General members (age 50 for Safety members), would accumulate to the amount necessary to fund an annuity at that age equal to 1/240 of Final Average Salary for General members (1/200 for Safety members). In addition to their basic contributions, members pay for one-quarter of the total contributions necessary to fund their cost-of-living benefits. Accumulation includes annual crediting of interest at the assumed investment earnings rate.

## Actuarial Valuation Methods

### Actuarial Value of Assets

#### Background

Under the Entry Age Normal Actuarial Funding Method, a determination is made of the target value of assets the System would hold if current employer normal cost and member contribution rates had been paid from each member's entry age through the actuarial valuation date and credited with the current investment return assumption. This target value of assets is called the Actuarial Accrued Liability (AAL). The Unfunded Actuarial Accrued Liability (UAAL) is equal to the AAL less the Actuarial Value of Assets as of the actuarial valuation date.

#### Actuarial Standards

In 1993, the Actuarial Standards Board issued Standard of Practice (SOP) No. 4 entitled Measuring Pension Obligations. Section 5.2.6 of SOP No. 4 states, in part, that the Actuarial Value of Assets should generally reflect some function of market value; however, it may be appropriate to use methods which smooth out the effects of short-term volatility in market value.

In Mercer's opinion, the use of smoothing methods are especially important for employers with limited budgetary flexibility, such as governmental entities.

#### Determination of Actuarial Value of Assets

Effective July 1, 1995, the Board adopted an asset valuation method that smooths the deviation of total market return (net of expenses) from the 8% return target. This method uses a 5 year period to smooth these deviations.

As a transition to this method, the difference between the June 30, 1994 actuarial value of assets and market value of assets was "smoothed in" over the 5 years beginning on June 30, 1995. The difference between the 1995 market returns (approximately 15.2% net of expenses) and the 8% assumption were also smoothed in over that period.

The following table shows the development of the smoothed actuarial value of assets.

## Actuarial Valuation Methods

### Sacramento County Employees' Retirement System

Actuarial Value of Assets as of June 30, 2002

Fiscal Year Ending	Total Contributions	Total Benefits	Market Value	Average Value	(1) Total Market Return (Net)	(2) Expected Market Return (Net)	(1-2) Investment Gain (Loss)	Deferred Factor	Deferred Return
through 6/30/94			\$ 1,141,165,829				\$ 34,243,920	0	\$ -
1994-95	\$ 69,492,787	\$ 63,808,943	1,321,033,733	\$ 1,144,007,751	\$ 174,184,060	\$ 90,153,128	\$ 84,030,932	0	\$ -
1995-96	592,983,671	68,900,796	2,166,064,778	\$ 1,849,592,351	\$ 320,948,170	\$ 147,967,388	\$ 172,980,782	0	\$ -
1996-97	71,993,092	75,264,340	2,598,645,719	\$ 2,182,684,591	\$ 435,852,189	\$ 174,614,767	\$ 261,237,422	0	\$ -
1997-98	73,038,917	82,460,820	3,050,881,721	\$ 2,612,534,046	\$ 461,657,905	\$ 209,002,724	\$ 252,655,181	0	\$ -
1998-99	77,130,416	89,990,489	3,395,406,934	\$ 3,066,925,269	\$ 357,385,286	\$ 245,354,021	\$ 112,031,265	0.2	\$ 22,406,253
1999-00	72,041,588	99,723,387	3,679,912,856	\$ 3,401,769,825	\$ 312,187,721	\$ 272,141,586	\$ 40,046,135	0.4	\$ 16,018,454
2000-01	73,322,363	108,998,139	3,432,825,810	\$ 3,681,477,927	\$ (211,411,270)	\$ 294,518,234	\$ (505,929,504)	0.6	\$ (303,557,703)
2001-02	82,978,888	116,980,868	3,199,234,414	\$ 3,437,241,772	\$ (199,589,416)	\$ 274,979,342	\$ (474,568,758)	0.8	\$ (379,655,006)
1. Total deferred return									\$ (644,788,002)
2. Market Value									3,199,234,414
3. Smoothed Market Value (Item 2 - Item 1)									3,844,022,416
4. Corridor Limit									
a. 80% of Net Market Value									2,559,387,531
b. 120% of Net Market Value									3,839,081,297
5. Actuarial Value (item 3 after corridor applied)									3,839,081,297
6. Amounts Excluded from Valuation Reserves (Before Transfer)									\$ (91,196,033)
a. Contingency reserves									(14,060,139)
b. Retiree health and death benefit reserve									(314,164,779)
c. Amount over reserved benefits (Before Transfer)									
7. Valuation Reserves (Item 5 + Item 6)									\$ 3,419,660,346
8. Balance of transfer to member COLA reserves (Before Transfer)									\$ (50,681,765)
9. (Surplus)/ Deficit for Withdrawn Employers (Preliminary)									(4,088,000)
10. Net Valuation Reserve (Item 7 + Item 8 + Item 9)									\$ 3,364,890,581

# Actuarial Valuation Results

## Employer and Member Contribution Rates

The following Table 10 provides a comparison of the Employer and Member contribution rates and estimated annual contribution amounts under the current and recommended actuarial assumption. The estimated annual contribution amounts are based upon annual payroll as of the actuarial valuation date.

**Table 10**  
**Contribution Rates and Estimated Annual Contributions**

Valuation Basis (Inflation/Investment Return) Salary Increase)	<u>Employer Contributions</u>		<u>Member Contributions</u>	
	<u>Rate</u>	<u>Annual Amount*</u>	<u>Rate</u>	<u>Annual Amount*</u>
<b>Current Rates</b> (4.25%/8.0%/5.55%)	7.67%	\$53,326,000	5.72%	\$ 39,773,000
<b>Recommended Rates</b> (4.25%/8.0%/5.75%)	7.92%	\$55,104,000	5.81%	\$ 40,375,000

\* Based on total annual salaries as of June 30, 2002 of \$695,259,000

## Portion of Rates Due to Disability Retirements

We have been asked to provide the Board with a breakdown of the employer rate between costs associated with disability and those relating to other benefits. This breakdown is provided in the following table:

	<u>% of Recommended Employer Rate for Disability</u>
General Members	20%
Safety Members	31%
Total Group	23%

In developing these percentages we have assumed that the liabilities for all types of benefits are funded to the same degree.

## Recommendation

Mercer recommends the adoption of the recommended rates and the assumptions which underlie those rates. The component parts of the current and recommended member and employer contribution rates broken down among the various member categories can be found in Tables 11 and 12, respectively.

These rates reflect all past transfers from unallocated reserves to provide for the funding of cost-of-living benefits.

## Actuarial Valuation Results

### Explanation of Changes in Actuarial Values

Impact on Contribution Rates (Before Board of Retirement Transfer)

Following is the estimated impact on 2003-2004 fiscal year contribution rates of the recommendations in this study.

Summary of Gain/ Loss	Rate Impact	Dollar Impact
June 30, 2001 Employer Rate	7.67% \$	53,326,000
Investment return greater than expected	-0.08% \$	(556,000)
Transfer to Offset Future Employer Contributions	0.00% \$	-
Salary increase greater than expected	0.05% \$	351,000
Retiree COLA greater than expected	0.04% \$	261,000
Dilution of Prefunded Actuarial Accrued Liability Credit	0.14% \$	999,000
Impact of Assumption Changes	0.00% \$	-
Miscellaneous (gains)/ losses	0.10% \$	723,000
Subtotal	0.25% \$	1,778,000
June 30, 2002 Employer Rate	7.92% \$	55,104,000

### Explanation of Gain/ Loss Items

Investment return greater than expected - The System's actuarial valuation assets earned 0.20% in excess of the 8% return assumption.

Salary increase greater than expected - The average salary for continuing actives was slightly higher than the expected increase of 5.75%.

Retiree Cola - Average COLA increase for retirees was greater than expected.

Dilution of Prefunded Actuarial Accrued Liability Credit - The aggregate payroll increased by 9.52% and was higher than the expected increase of 4.25%. The unexpected increase diluted the percentage of payroll credit drawn from the Prefunded Actuarial Accrued Liability.

Miscellaneous (gains)/ losses - Other actuarial gains or losses with untraced sources.

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## Actuarial Valuation Results

### Member Contribution Rates

The average member rate increases as a result of spreading the unused COLA subsidy over a larger payroll base (including new entrants during 2001–2002).

### Funding Ratios

The change in funding ratio is due to actuarial experience as detailed under Employer Contribution Rate above.

### Asset Valuation Method

There were no changes to the asset valuation method from the June 30, 2001 valuation.

# Actuarial Valuation Results

**Table 11**  
**Member Contribution Rates**

**Current Rates**  
**8% Interest, 4.25% Inflation and 5.55% Salary Scale Assumption**

<u>General Members</u>						<u>Safety Members</u>					
Tier 1			Tier 2/3			Tier 1			Tier 2		
Basic	COLA	Total	Basic	COLA	Total	Basic	COLA	Total	Basic	COLA	Total
6.29%	0.74%	7.03%	5.98%	0.38%	6.36%	8.51%	1.00%	9.51%	8.09%	0.74%	8.83%

Note: These are the single full rates payable by members who entered the System after January 1, 1975.

These rates are applicable for monthly salary in excess of \$350. Contribution rates for the first \$350 of salary are one-third lower for members covered by Social Security.

**Recommended Rates**  
**8% Interest, 4.25% Inflation and 5.55% Salary Scale Assumption**

<u>General Members</u>						<u>Safety Members</u>					
Tier 1			Tier 2/3			Tier 1			Tier 2		
Basic	COLA	Total	Basic	COLA	Total	Basic	COLA	Total	Basic	COLA	Total
6.29%	0.96%	7.25%	5.98%	0.47%	6.45%	8.51%	1.30%	9.81%	8.09%	0.88%	8.97%

Note: These are the single full rates payable by members who entered the System after January 1, 1975.

These rates are applicable for monthly salary in excess of \$350. Contribution rates for the first \$350 of salary are one-third lower for members covered by Social Security.



# Actuarial Valuation Results

**Table 12  
Employer Contribution Rate Detail**

8% Interest, 4.25% Inflation and 5.55% Salary Scale Assumptions

	Current Rates (County Rates)												
	<u>General</u>				<u>Safety</u>				<u>Total</u>				
	Tier 1	Tier 2	Tier 3	Tier 1	Tier 2	Tier 3	Tier 1	Tier 2	Tier 3	Tier 1	Tier 2	Tier 3	
% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)
Normal Cost	9.48%	7,465,000	6.03%	1,359,000	7.88%	33,088,000	20.83%	16,923,000	16.75%	11,809,000	10.49%	70,644,000	
UAAL	-2.62%	(2,064,000)	-2.62%	(590,000)	-2.62%	(11,007,000)	-4.79%	(3,891,000)	-4.79%	(3,376,000)	-3.11%	(20,928,000)	
<b>Total</b>	<b>6.86%</b>	<b>5,401,000</b>	<b>3.41%</b>	<b>769,000</b>	<b>5.26%</b>	<b>22,081,000</b>	<b>16.04%</b>	<b>13,032,000</b>	<b>11.96%</b>	<b>8,433,000</b>	<b>7.38%</b>	<b>49,716,000</b>	

	Current Rates (District Rates)												
	<u>General</u>				<u>Safety</u>				<u>Total</u>				
	Tier 1	Tier 2	Tier 3	Tier 1	Tier 2	Tier 3	Tier 1	Tier 2	Tier 3	Tier 1	Tier 2	Tier 3	
% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)
Normal Cost	12.13%	228,000	6.03%	-	10.49%	2,054,000	18.18%	119,000	16.75%	-	10.85%	2,401,000	
UAAL	5.41%	102,000	5.41%	-	5.41%	1,060,000	4.94%	32,000	4.94%	-	5.40%	1,194,000	
<b>Total</b>	<b>17.54%</b>	<b>330,000</b>	<b>11.44%</b>	<b>-</b>	<b>15.90%</b>	<b>3,114,000</b>	<b>23.12%</b>	<b>151,000</b>	<b>21.69%</b>	<b>-</b>	<b>16.25%</b>	<b>3,595,000</b>	

Average weighted rate for the total group = 7.67%

	Annual Salary at June 30, 2002 (\$)					
County	78,774,000	22,526,000	420,112,000	81,242,000	70,485,000	673,139,000
District	1,878,000	-	19,586,000	656,000	-	22,120,000
	<u>80,652,000</u>	<u>22,526,000</u>	<u>439,698,000</u>	<u>81,898,000</u>	<u>70,485,000</u>	<u>695,259,000</u>

# Actuarial Valuation Results

**Table 12 (Cont'd)  
Employer Contribution Rate Detail**

8% Interest, 4.25% Inflation and 5.75% Salary Scale Assumptions

	Recommended (County Rates)												
	General						Safety						Total
	Tier 1		Tier 2		Tier 3		Tier 1		Tier 2		% of Payroll	Annual Amount (\$)	
	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	
Normal Cost	9.70%	7,639,000	6.07%	1,367,000	7.69%	32,296,000	20.67%	16,794,000	17.14%	12,081,000	10.43%	70,177,000	
UAAL	-2.54%	(2,001,000)	-2.54%	(572,000)	-2.54%	(10,671,000)	-3.61%	(2,933,000)	-3.61%	(2,545,000)	-2.78%	(18,722,000)	
<b>Total</b>	<b>7.16%</b>	<b>5,638,000</b>	<b>3.53%</b>	<b>795,000</b>	<b>5.15%</b>	<b>21,625,000</b>	<b>17.06%</b>	<b>13,861,000</b>	<b>13.53%</b>	<b>9,536,000</b>	<b>7.65%</b>	<b>51,455,000</b>	

	Recommended (District Rates)												
	General						Safety						Total
	Tier 1		Tier 2		Tier 3		Tier 1		Tier 2		% of Payroll	Annual Amount (\$)	
	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	% of Payroll	Annual Amount (\$)	
Normal Cost	11.98%	225,000	6.07%	-	10.66%	2,088,000	17.98%	118,000	17.14%	-	10.99%	2,431,000	
UAAL	5.49%	103,000	5.49%	-	5.49%	1,075,000	6.12%	40,000	6.12%	-	5.51%	1,218,000	
<b>Total</b>	<b>17.47%</b>	<b>328,000</b>	<b>11.56%</b>	<b>-</b>	<b>16.15%</b>	<b>3,163,000</b>	<b>24.10%</b>	<b>158,000</b>	<b>23.26%</b>	<b>-</b>	<b>16.50%</b>	<b>3,649,000</b>	

Average weighted rate for the total group = 7.93%

	Annual Salary at June 30, 2002 (\$)					
County	78,774,000	22,526,000	420,112,000	81,242,000	70,485,000	673,139,000
District	1,878,000	-	19,586,000	656,000	-	22,120,000
	<u>80,652,000</u>	<u>22,526,000</u>	<u>439,698,000</u>	<u>81,898,000</u>	<u>70,485,000</u>	<u>695,259,000</u>

## Funding Status

### Evaluation of Funding Status

#### Background

The evaluation of the System's funding status is simply the comparison of its actuarial value of assets to a target value of assets. The funding status measure which is required and calculated for the System is based on GASB No. 25 Guidelines. The table below shows the required elements:

<b>Funding Status Measure</b>	<b>Target Assets</b>	<b>Actual Assets</b>	<b>Purpose</b>
GASB No. 25 Funding Method Progress	Actuarial Accrued Liability	Actuarial Value of Assets	Progress toward funding UAAL

This section of the report provides the System's funding status required by GASB No. 25, followed by an exhibit which summarizes the System's funding history.

#### Funding Progress – GASB No. 25

The GASB has issued two statements; Accounting for Pensions by State and Local Government Employers (GASB Statement No. 27); and Financial Reporting for Defined Benefit and Note Disclosures for Defined Contribution Plans (GASB Statement No. 25). Both of these statements effective in 1997 and 1996, respectively, require funding status to be measured based upon the actuarial funding method adopted by the Board of Retirement, i.e., for SCERS, the Entry Age Normal Funding Method. Thus, the target value of assets is equal to the Actuarial Accrued Liability (AAL) and is compared to the Actuarial Value of Assets developed earlier in this report.

The GASB Statement No. 25 liabilities and assets calculated for the last eight years are as follows:

## Funding Status

Actuarial Valuation Date	Actuarial Value of Assets <sup>(i)</sup> (a)	Actuarial Accrued Liability (AAL) - Entry Age <sup>(ii)</sup> (b)	Unfunded AAL (UAAL) (b - a)	Funded Ratio (a/b)	Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
6/30/96	\$ 1,956,715,000	\$ 1,987,230,000	\$ 30,515,000	98.5%	\$ 417,603,000	7.3%
6/30/97	\$ 2,238,557,000	\$ 2,226,440,000	\$ (12,117,000)	100.5%	\$ 419,467,000	-2.9%
6/30/98	\$ 2,600,547,000	\$ 2,409,642,000	\$ (12,117,000)	100.5%	\$ 470,385,000	-40.6%
6/30/99	\$ 3,017,639,000	\$ 2,734,548,000	\$ (283,091,000)	110.4%	\$ 502,325,000	-56.4%
6/30/00	\$ 3,427,348,000	\$ 3,111,760,000	\$ (315,588,000)	110.1%	\$ 559,047,000	-56.5%
6/30/01	\$ 3,718,198,000	\$ 3,451,864,000	\$ (266,334,000)	107.7%	\$ 634,798,000	-42.0%
6/30/02	\$ 3,839,081,000	\$ 3,586,250,000	\$ (252,831,000)	107.1%	\$ 695,259,000	-36.4%

(i) Excludes accounts payable.

(ii) Includes reserve for interest fluctuations, retiree health benefit reserve, retiree death benefit reserve and amount over reserved benefits.

## Funding History

It is informative to monitor the history of key actuarial and other financial results over time as a dynamic indicator of the System's ongoing funding progress. The following exhibit provides a 12-year history of the following items:

- (1) Actuarial Accrued Liability (AAL)
- (2) Actuarial Value of Assets
- (3) Unfunded Actuarial Accrued Liability (UAAL)
- (4) Funding Method Progress Ratio
- (5) Investment Return Assumption
- (6) Rate of Return on Actuarial Value of Assets
- (7) Aggregate Employer Contribution Rate
- (8) Aggregate Member Contribution Rate
- (9) Total Contributions to the System
- (10) Benefit Payments
- (11) Aggregate Contributions minus Benefit Payments
- (12) Investment Income
- (13) Aggregate Contributions plus Investment Income minus Benefit Payments

# Funding History

## Sacramento County Employees' Retirement System Funding History (All Dollars in 1,000's)

Actuarial Valuation Date	(1) AAL	(2) Actuarial Value of Assets	(3) UAAL	(4) (2)/(1) Funding Method Progress Ratio	(5) Investment Return Assumption	(6) Net Return on Actuarial Value of Assets	(7) Employer Contribution Rate	(8) Average Member Contribution Rate	(9) Prior Year Total Contributions to System	(10) Prior Year Benefit Payments	(11) Prior Year Free Cash Flow (9)-(10)
June 30, 1991	\$1,206,889	\$895,611	\$311,278	74.2%	9.00%	6.60%	12.60%	3.73%	\$51,671	\$39,763	\$11,908
June 30, 1992 <sup>1</sup>	\$1,327,407	\$959,560	\$367,847	72.3%	8.75%	6.07%	12.72%	4.47%	\$54,971	\$45,678	\$9,293
June 30, 1993 <sup>2</sup>	\$1,501,988	\$1,039,025	\$461,884	69.2%	8.50%	7.83%	13.61%	5.86%	\$55,522	\$51,338	\$4,184
June 30, 1994 <sup>3</sup>	\$1,634,773	\$1,106,922	\$533,659	67.7%	8.00%	5.98%	16.27%	6.16%	\$63,691 <sup>4</sup>	\$58,095	\$5,596
June 30, 1995 <sup>5</sup>	\$1,835,864	\$1,767,064	\$68,800	96.3%	8.00%	7.68%	10.81%	6.48%	\$602,527	\$63,809	\$538,718
June 30, 1996	\$1,987,230	\$1,956,715	\$30,515	98.5%	8.00%	13.71%	10.13%	6.43%	\$59,949	\$68,901	\$(8,952)
June 30, 1997	\$2,226,440	\$2,238,557	\$(12,117)	100.5%	8.00%	14.50%	9.83%	6.29%	\$71,993	\$75,264	\$(3,271)
June 30, 1998	\$2,409,642	\$2,600,547	\$(190,905)	107.9%	8.00%	16.47%	8.07%	5.52%	\$73,039	\$82,461	\$(9,422)
June 30, 1999	\$2,734,548	\$3,017,639	\$(283,091)	110.4%	8.00%	16.52%	6.77%	5.43%	\$77,130	\$89,990	\$(12,860)
June 30, 2000	\$3,111,760	\$3,427,348	\$(315,588)	110.1%	8.00%	14.46%	6.86%	5.42%	\$72,042	\$99,723	\$(27,681)
June 30, 2001	\$3,451,864	\$3,718,198	\$(266,334)	107.7%	8.00%	9.52%	7.86%	5.58%	\$73,322	\$108,998	\$(35,676)
June 30, 2002	\$3,856,250	\$3,839,089	\$(252,831)	107.1%	8.00%	8.20%	7.92%	5.81%	\$82,979	\$116,980	\$(34,001)

<sup>1</sup> The increase in the employer contribution rates was primarily due to the new 2% cost of living benefit that was granted to Tier 2 members who moved to Tier 3. The earnings on an Accounting Book Value basis were lower than expected, thereby causing the employer rate to increase. In addition, the continued grade-in of the rate adjustments which resulted from the valuation date change in 1990 from January 1 to July 1. Finally, the change in actuarial assumptions (both economic and noneconomic) caused the employer and member rates to increase. Partially offsetting this increase was a decrease due to a slightly higher percentage of Safety members paying full rates rather than half rates. Also offsetting the increase was a decrease due to changing the Unfunded Actuarial Accrued Liability amortization period from 17.5 years to 30 years. The decrease in the funding ratio was due to the 2% cost-of-living benefit granted to Tier 2 members who moved to Tier 3, as well as the changes in actuarial assumptions.

<sup>2</sup> The aggregate employer rate decreased due to a higher proportion of the contributions being paid by members at full rather than half-member rates. Offsetting this decrease was an increase due to the golden handshake that was offered during the year and lower than expected return on assets. Also, the change in economic assumptions caused the employer and member rates to increase. The decrease in the funding ratio was due to the change in economic assumptions.

<sup>3</sup> The employer rate increase resulted from three sources: The change in economic actuarial assumptions, modification to the interest calculation and other miscellaneous changes. Member contribution rates and funding ratios were impacted by the change in economic assumptions.

<sup>4</sup> The County begins prepayment of contribution during this year.

<sup>5</sup> Considering \$533,034,360 of pension obligation bonds issued on July 5, 1995

## Funding History

### Historical Rates of Return

The annual investment returns as well as the rates of return assumed by the System over the past fourteen and one-half years are as follows:

#### SCERS Actual and Assumed Rate of Investment Returns (Net of Expenses)

Year-Ended	YIELD		
	Actuarial Value	Market Value	Assumed Rate of Return
December 31, 1988	□	13.9%	9.50%
December 31, 1989		18.3%	9.00%
June 30, 1990 <sup>(2)</sup>		1.2% <sup>(1)</sup>	4.50% <sup>(1)</sup>
June 30, 1991 <sup>(2)</sup>	6.6%	6.9%	9.00%
June 30, 1992 <sup>(2)</sup>	6.1%	8.7%	9.00%
June 30, 1993	7.8%	8.1%	8.75%
June 30, 1994	6.0%	1.5%	8.50%
June 30, 1995	7.7%	15.4%	8.00%
June 30, 1996	13.7%	17.2%	8.00%
June 30, 1997	14.5%	20.1%	8.00%
June 30, 1998	16.5%	17.6%	8.00%
June 30, 1999	16.5%	11.7%	8.00%
June 30, 2000	14.5%	9.2%	8.00%
June 30, 2001	9.5%	-5.7%	8.00%
June 30, 2002	8.2%	-5.8%	8.00%
Annualized average over 12 years	10.6%	8.4%	8.27%
Annualized average over 14-1/2 years	—	9.2%	8.44%

(1) Six month period only.

(2) Reserves credited with 9% interest from the Unreserved account. For the year ended June 30, 1992, reserves were credited with 4.5% interest for the first 6 months, and 4.0% for the second 6 months.

## Actuarial Balance Sheet

The purpose of the Actuarial Balance Sheet is to compare assets with liabilities in order to define the portion of the liabilities which need to be funded by the Employer and Members in the future.

System liabilities equal the present value of all future benefits expected to be paid to current and future pensioners and beneficiaries of the System.

System assets are equal to the sum of:

- the assets currently available to pay benefits,
- the present value of future contributions expected to be made by current active members, and
- the present value of future contributions expected to be made by the employer.

The last item, the present value of future employer contributions, is made up of two parts:

1. The Present Value of Future Employer Normal Costs: Using the Entry Age Normal Cost Method, the employer budgets a certain percentage of payroll which will be sufficient to fund benefits for members from their entry into the System. The Normal Cost is the level percentage of salary each year that is necessary to fund Members' benefits under the current benefit provisions. Normal Cost is funded from a Member's date of employment to the expected retirement date. An adjustment is made for the deductions which will be made from the future salaries of System members. For this valuation, the Normal Costs are:

<u>Member Category</u>	<u>Contribution Rate</u>	<u>Annual Amount</u>
<i>County</i>		
General Tier 1	9.70%	\$7,639,000
General Tier 2	6.07%	\$1,367,000
General Tier 3	7.69%	\$32,296,000
Safety Tier 1	20.67%	\$16,794,000
Safety Tier 2	17.14%	\$12,081,000
<i>Special Districts</i>		
General Tier 1	11.98%	\$225,000
General Tier 3	10.66%	\$2,088,000
Safety Tier 1	17.98%	\$118,000

The present value of these future Employer Normal Cost contributions represents one piece of the present value of future employer contributions.



## Actuarial Balance Sheet

2. The Unfunded Actuarial Accrued Liability: The portion of the present value of future employer contributions which will not be funded by the future Entry Age Normal Cost contributions is the Unfunded Actuarial Accrued Liability (UAAL). The UAAL arises from prior contributions that were less than the current Normal Cost. This usually results from benefits and assumption changes and the net effect of prior gains and losses. If the employer had always contributed the current Normal Cost, if there were no prior benefit or assumption changes and if actual experience exactly matched the actuarial assumptions, the Normal Cost would be sufficient to fund all benefits and there would be no UAAL. If the UAAL is negative, it is used (on an amortized basis) to reduce future normal cost contributions.

For the current year, we have determined that the appropriate amounts needed to fund the UAAL are:

<u>Member Category</u>	<u>Contribution Rate</u>	<u>Annual Amount*</u>
<i>County</i>		
General Tier 1	(2.54%)	(\$2,001,000)
General Tier 2	(2.54%)	(\$572,000)
General Tier 3	(2.54%)	(\$10,671,000)
Safety Tier 1	(3.61%)	(\$2,933,000)
Safety Tier 2	(3.61%)	(\$2,545,000)
<i>Special Districts</i>		
General Tier 1	5.49%	\$103,000
General Tier 3	5.49%	\$1,075,000
Safety Tier 1	6.12%	\$40,000

\* Increases with inflation rate to remain as a level percentage of payroll for current and future members.

# Actuarial Balance Sheet

## ACTUARIAL BALANCE SHEET (As of June 30, 2002)

ASSETS			
	<u>Basic</u>	<u>COL</u>	<u>Total</u>
1. Total Assets at Actuarial Value	\$2,889,212,742	\$1,277,225,744	\$4,166,438,486
2. Present Value of Future Member Contributions	\$339,581,067	\$31,044,168	\$370,625,235
3. Present Value of Future Employer Contributions on Account of:			
a) Normal Cost	\$512,686,028	\$121,175,308	\$633,861,336
b) Unfunded Actuarial Accrued Liability	<u>(\$52,793,177)</u>	<u>(\$200,037,872)</u>	<u>(\$252,831,049)</u>
4. Total Actuarial Assets	<u>\$3,688,686,660</u>	<u>\$1,229,407,348</u>	<u>\$4,918,094,008</u>
LIABILITIES			
	<u>Basic</u>	<u>COL</u>	<u>Total</u>
5. Present Value of Retirement Allowances Payable to Present Retired Members	\$741,428,063	\$596,508,818	\$1,337,936,881
6. Present Value of Retirement Allowances to be Granted for:			
a) Service Retirement	\$1,932,237,788	\$565,157,807	\$2,497,395,595
b) Disability Retirement	\$172,494,777	\$52,107,402	\$224,602,179
7. Present Value of Death Benefits to be Granted for:			
a) Duty Deaths	\$3,072,623	\$979,759	\$4,052,382
b) Non-duty Death	\$41,474,506	\$9,499,617	\$50,974,123
8. Present Value of Members' Contributions to be Returned Upon Withdrawal Before Retirement	\$47,112,763	\$5,153,944	\$52,266,707
9. Amount over Reserved Benefits	\$192,915,081	\$0	\$192,915,081
10. Retiree Health Insurance Reserve	\$1,739,075	\$0	\$1,739,075
11. Retiree Death Benefit Reserve	\$12,321,064	\$0	\$12,321,064
12. Reserve for Interest Fluctuation	\$91,196,033	\$0	\$91,196,033
13. Surplus for Withdrawn Employers	\$4,088,000	\$0	\$4,088,000
14. Payables	<u>\$448,606,888</u>	<u>\$0</u>	<u>\$448,606,888</u>
15. Total Actuarial Liabilities	<u>\$3,688,686,661</u>	<u>\$1,229,407,347</u>	<u>\$4,918,094,008</u>

## System Assets

### System Assets – Reserve Accounting

The Board of Retirement adopted an excess earnings policy on July 25, 1996. This policy governs the allocation of excess earnings for particular statutory and Board designations.

In previous years, excess earnings which remained after establishing the Reserve for Interest Fluctuations and reserving for future 401(h) contribution offsets were used to reduce employer contributions and member COLA contributions. The allocation of available excess earnings between employer and member offsets was based upon the relative size of reserves held for these two categories.

However, starting with the June 30, 1999 valuation, a portion of these remaining excess earnings will be retained in the Reserve for Interest Fluctuations rather than used for contribution offsets.

The process we used to establish the additional excess earnings allocation this year was as follows:

- Adjust earnings for the change in the Market Stabilization Reserve;
- Increase the Reserve for Interest Fluctuations to 2.5% of the System's gross assets before any other excess earnings transfers;
- Allocate excess earnings to provide for the 2002-2003 and 2003-2004 retiree health and dental benefits; and
- Allocate the remaining excess earnings to the Amount over Reserve Benefits.

However, we assumed the Board would not transfer any excess earnings to maintain employer and member contribution rates at the same level as those calculated in the June 30, 2001 valuation.

Current and past years' amounts transferred to offset member COLA contributions are considered member reserves even though they are not included in member's accounts. The amounts available to offset employer and member contributions have been used to reduce the contribution rates that appear earlier in this report.

The following tables provide the specific amounts allocated for various purposes and the reserve balances as of June 30, 2002.

# System Assets

**Table 1 - Sacramento County Employees' Retirement System**  
 Summary of Earnings for 2001-2002 Fiscal Year

RECOMMENDED BASED ON 2.5% CONTINGENCY RESERVE

	<u>Per Excess Earnings Policy</u>
Total Earnings	\$ (199,589,416)
Amounts Credited For:	
Market Stabilization Reserve	\$ 354,474,503
Regular Interest Crediting*	<u>\$ (256,260,683)</u>
Net Earnings	\$ (101,375,596)
Amount Credited Under Excess Earnings Policy For:	
Reserve for Interest Fluctuation (2.5%)	\$ 5,482,756
Retiree Health/ Dental Insurance Reserve for 2002-2003	\$ (11,551,925)
Replenish 2003-2004 Health Benefits Reserve**	<u>\$ (2,685,100)</u>
Net Excess Earnings	\$ (110,129,865)
Amount Transferred Under Excess Earnings Policy For:	
Employer Reserves	\$ -
Member Future COL Contribution Offset	<u>\$ -</u>
Subtotal	\$ -
Remaining Excess Earnings	\$ (110,129,865)

\* Includes interest credit for Death Benefit Reserve

\*\* Equals \$14,620,000 for 2003-2004 net of \$11,935,000 available as of June 30, 2001 to cover second year health/dental insurance reserve.

**System Assets****Sacramento County Employees' Retirement System**

Statement of Reserves

June 30, 2002 and 2001

**Market Value Accounting/ Smoothed Market Value of Reserves  
(Net of Liabilities)**

RECOMMENDED BASED ON 2.5% CONTINGENCY RESERVE

	<u>6/30/2002</u> (After Transfer)	<u>6/30/2002</u> (Before Transfer)	<u>6/30/2001</u> (After Transfer)
Employee Reserves	\$ 491,404,774	\$ 491,404,774	\$ 437,665,741
Employer Reserves	1,607,762,010	1,607,762,010	1,508,527,881
Retiree Reserve	1,320,493,562	1,320,493,562	1,242,513,022
Subtotal (Valuation Reserves)	<u>\$ 3,419,660,346</u>	<u>\$ 3,419,660,346</u>	<u>\$ 3,188,706,644</u>
Reserve for Interest Fluctuations	\$ 91,196,033	\$ 91,196,033	\$ 96,678,789
Retiree Health Benefit Reserve	1,739,075	1,739,075	2,698,450
Death Benefit Reserve	12,321,064	12,321,064	11,905,138
Ventura Reserve	121,249,698	121,249,698	121,249,698
Amount over Reserved Benefits	192,915,081	192,915,081	296,959,471
Subtotal	<u>\$ 419,420,951</u>	<u>\$ 419,420,951</u>	<u>\$ 529,491,546</u>
Total Allocated Reserves	\$ 3,839,081,297	\$ 3,839,081,297	\$ 3,718,198,190
Market Stabilization Reserve	<u>\$ (639,846,883)</u>	<u>\$ (639,846,883)</u>	<u>\$ (285,372,380)</u>
Net Assets Held In Trust for Pension Benefits	<u>\$ 3,199,234,414</u>	<u>\$ 3,199,234,414</u>	<u>\$ 3,432,825,810</u>
Liabilities netted from above	\$ 448,606,888	\$ 448,606,888	\$ 434,325,730
Gross Assets	\$ 3,647,841,302	\$ 3,647,841,302	\$ 3,867,151,540
Net Actuarial Value Assets	\$ 3,839,081,297	\$ 3,839,081,297	\$ 3,718,198,190
Net Valuation Assets:			
From Above	\$ 3,419,660,346	\$ 3,419,660,346	\$ 3,188,706,644
For Member Contribution Offset*	<u>\$ (50,681,765)</u>	<u>\$ (50,681,765)</u>	<u>\$ (51,918,586)</u>
Net	3,368,978,581	3,368,978,581	3,136,788,058
ESTIMATED (Surplus)/ Deficit for Withdrawn Employers	<u>\$ (4,088,000)</u>		<u>\$ (5,080,000)</u>
<b>Final Valuation Assets</b>	<u>\$ 3,364,890,581</u>		<u>\$ 3,131,708,058</u>
* Balance remaining from prior year:	\$ 50,681,765		

**System Assets**

**Sacramento County Employees' Retirement System**

Change in Reserves

2000 - 2001 Fiscal Year

**Table 2 - Market Value Accounting/ Smoothed Market Value of Reserves**

**30-Jun-02**

RECOMMENDED BASED ON 2.5% CONTINGENCY RESERVE

	Balance at <u>6/30/01</u>	2001 - 2002 <u>Interest*</u>	2001 - 2002 <u>Contributions</u>	2001 - 2002 <u>Benefits</u>	2001 - 2002 <u>Transfers</u>	Balance at <u>6/30/02</u>	RECOMMENDED Application of 30-Jun-02 <u>Transfer Policy</u>	Adjusted Balance at <u>6/30/02</u>
Employee Reserves	437,665,741	35,354,902	38,431,627	(3,516,699)	(16,530,797)	491,404,774	-	491,404,774
Employer Reserves	1,508,527,881	120,215,194	36,395,711	(254,176)	(57,122,600)	1,607,762,010	- **	1,607,762,010
Retiree Reserve	<u>1,242,513,022</u>	<u>99,750,494</u>	<u>-</u>	<u>(103,574,901)</u>	<u>81,804,947</u>	<u>1,320,493,562</u>	-	<u>1,320,493,562</u>
Subtotal	3,188,706,644	255,320,590	74,827,338	(107,345,776)	8,151,550	3,419,660,346	-	3,419,660,346
Reserve for Interest Fluctuations	96,678,789	(5,482,756)	-	-	-	91,196,033	-	91,196,033
Retiree Health Benefit Reserve	2,698,450	-	8,151,550	(9,110,925)	-	1,739,075	11,551,925 ***	1,739,075
Death Benefit Reserve	11,905,138	940,093	-	(524,167)	-	12,321,064	-	12,321,064
Ventura Reserve	121,249,698	-	-	-	-	121,249,698	-	121,249,698
Amount over Reserved Benefits	<u>296,959,471</u>	<u>(95,892,840)</u>	<u>-</u>	<u>-</u>	<u>(8,151,550)</u>	<u>192,915,081</u>	<u>(11,551,925)</u>	<u>192,915,081</u>
Subtotal	529,491,546	(100,435,503)	8,151,550	(9,635,092)	(8,151,550)	419,420,951	-	419,420,951
Total Allocated Reserves	3,718,198,190	154,885,087	82,978,888	(116,980,868)	-	3,839,081,297	-	3,839,081,297
Market Stabilization Reserve	(285,372,380)	(354,474,503)	-	-	-	(639,846,883)	-	(639,846,883)
Net Assets	<u>3,432,825,810</u>	<u>(199,589,416)</u>	<u>82,978,888</u>	<u>(116,980,868)</u>	<u>-</u>	<u>3,199,234,414</u>	<u>-</u>	<u>3,199,234,414</u>

\* Preliminary Estimates and Subject to Change by SCERS.

\*\* Preliminary portion to offset future member contributions: \$ - ; Employer: - ; Balance: 166,743,056 \$ 166,743,056

\*\*\* Held in Amount over Reserved Benefits to offset employer contribution to 401(h) Account. Total required 401(h) balance at 6/30/02 is: \$ 13,291,000

**Note: Change in Unallocated Excess Earnings:**

Unallocated excess earnings as of 6/30/2001 = \$ 276,872,921

Unallocated excess earnings as of 6/30/2002 = \$ 166,743,056

## System Assets

### System Assets – Return On Investment

The market value of assets and related financial information was provided to us by the System staff. We have not audited or verified the financial statements.

	June 30, 2002	June 30, 2001	Percent Change
Actuarial Value	\$3,839,081,297	\$3,718,198,190	3.3%
Market Value	\$3,199,234,414	\$3,432,825,810	-6.8%

The approximate rates of return on plan assets are shown below, based on the following analysis.

	Market Value	Actuarial Value	Valuation Assets
<b>Value of Assets at 6/30/01</b>	<b>\$ 3,432,825,810</b>	<b>\$ 3,718,198,190</b>	<b>\$ 3,131,708,059</b>
Contributions:			
Employer	44,547,261	44,547,261	44,547,261
Members	38,431,627	38,431,627	38,431,627
Benefits Paid to Participants	116,980,868	116,980,868	107,345,776
Expenses Paid	15,347,023	15,347,023	15,347,023
Investment Earnings	(184,242,393)	170,232,110	272,896,434
<b>Value of Assets at 6/30/02</b>	<b>\$ 3,199,234,414</b>	<b>\$ 3,839,081,297</b>	<b>\$ 3,364,890,581</b>
<b>NET RATE OF RETURN (Net of Expenses)</b>	<b>-5.81%</b>	<b>4.16%</b>	<b>8.20%</b>

# System Assets

## SYSTEM ACCOUNTING ASSETS, RESERVES AND OTHER LIABILITIES

As of June 30, 2002

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<u>Assets</u>	
Cash	\$3,419,883
Short-term Investments	84,089,644
Accounts Receivable	52,616,746
Investments @ Market Value	3,132,865,135
Real estate mortgage loans	0
Real estate equity	374,801,074
Equipment and fixtures (net of depreciation)	48,820
Prepaid Dental	<u>0</u>
 Total Assets	 \$3,647,841,302
 Accounts Payable & Other Current Liabilities	 <u>448,606,888</u>
 Assets Net of Payable and Current Liabilities	 <u><u>3,199,234,414</u></u>

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<u>Reserves and Liabilities</u>		
	<u>Before Transfer</u>	<u>After Transfer</u>
Employee Reserves	\$491,404,774	491,404,774
Employer Reserves	1,607,762,010	1,607,762,010
Retiree Reserve	1,320,493,562	1,320,493,562
Subtotal (Valuation Reserves)	<u>\$3,419,660,346</u>	<u>3,419,660,346</u>
Reserve for Interest Fluctuations	91,196,033	91,196,033
Retiree Health Benefit Reserve	1,739,075	1,739,075
Retiree Death Benefit Reserve	12,321,064	12,321,064
Ventura Reserve	121,249,698	121,249,698
Amount over Reserved Benefits	192,915,081	192,915,081
Subtotal	<u>419,420,951</u>	<u>419,420,951</u>
 Total Allocated Reserves (Total Actuarial Value)	 3,839,081,297	 3,839,081,297
 Market Stabilization Reserve	 (639,846,883)	 (639,846,883)
Accounts Payable & Other Current Liabilities	<u>448,606,888</u>	<u>448,606,888</u>
 Total Reserves & Liabilities	 3,647,841,302	 3,647,841,302
 Amounts Transferred to:		
Member COL Contributions		\$ -
Employer Reserves		\$ -



## Appendices

### A. Major Provisions of the Present System

#### MAJOR PROVISIONS OF THE PRESENT SYSTEM

##### Benefit Sections 31676.1 and 31664 of the 1937 County Act

Briefly summarized below are the major provisions of the County Employees Retirement Law of 1937, as amended through June 30, 2002 that are applicable to Sacramento County Employees' Retirement System.

##### *Membership*

General employees entering after September 27, 1981 become members of Tier 2 or Tier 3. Safety members entering after June 24, 1995 become members of Tier 2. All others are covered by Tier 1 provisions.

##### *Final Average Salary (FAS)*

Final average salary is defined as the highest 12 consecutive months of compensation earnable for Tier 1 and highest 36 consecutive months for Tier 2 and Tier 3.

##### *Return of Contributions*

If a member should resign or die before becoming eligible for retirement, his or her contributions plus interest will be refunded. In lieu of receiving a return of contributions, a member with five or more years of service may elect to leave his or her contributions on deposit and receive a deferred vested benefit when eligible for retirement.

##### *Service Retirement Benefit*

Members with 10 years of service who have attained the age of 50 are eligible to retire. Members with 30 years of service (20 years for Safety), regardless of age, are eligible to retire.

The benefit expressed as a percentage of monthly FAS per year of service, depending on age at retirement, is illustrated below for typical ages. For members integrated with Social Security, the benefit is reduced by one-third of the percentage shown below times the first \$350 of monthly FAS per year of service after January 1, 1956.

Age	General	Safety
50	1.18%	2.00%
55	1.49%	2.62%
60	1.92%	2.62%
65 and over	2.43%	2.62%

### *Disability Benefit*

Members with five years of service, regardless of age, are eligible for nonservice connected disability.

For Tier 1 General members, the benefit is 1.5% (1.8% for Tier 1 Safety members) of FAS for each year of service. If this benefit does not equal one-third of FAS, the benefit is increased by the same percentage of FAS for the years which would have been credited to age 65 (age 55 for Safety members), but the total benefit in this case cannot be more than one-third of FAS.

For Tier 2 and Tier 3 members, the benefit is 20% of FAS for the first five years of service plus 2% for each additional year for a maximum of 40% of FAS.

If the disability is service connected, the member may retire regardless of length of service, with a benefit of 50% of FAS.

### *Death Benefit (Before Retirement)*

In addition to the return of contributions, a death benefit is payable to the member's beneficiary or estate equal to one month's salary for each completed year of service under the retirement System, based on the final year's average salary, but not to exceed six (6) months' salary.

If a member dies while eligible for service retirement or non-service connected disability, the spouse receives 60% of the allowance that the member would have received for retirement on the day of his or her death.

If a member dies in the performance of duty, the spouse receives 50% of the member's final average salary.

### *Death Benefit (After Retirement)*

If a member dies after retirement, a lump burial allowance is paid to the beneficiary or estate.

If the retirement was for service connected disability, 100% of the member's allowance as it was at death is continued to the surviving spouse for life.

If the retirement was for other than service connected disability, 60% of the member's allowance is continued to the spouse for life.

*Maximum Benefit*

The maximum benefit payable to a member or beneficiary is 100% of FAS.

*Cost of Living*

The maximum increase in retirement allowance is 4% per year for Tier 1 General and Safety members, 2% for Tier 2 Safety members and, effective April 1, 1993, 2% for Tier 3 members. Tier 2 General members have no cost of living benefit. The cost of living increases are based on the change in the Consumer Price Index for the calendar year prior to the April 1 effective date.

*Contribution Rates*

Basic member contribution rates are based on the age nearest birthday at entry into the System (single rate for entrants after January 1, 1975). The rates are such as to provide an average annuity at age 60 equal to 1/240 of FAS for General members and at age 50 equal to 1/200 of FAS for Safety members. For members integrated with Social Security, the above contributions are reduced by one-third of that portion of such contribution payable with respect to the first \$350 of monthly salary. Cost of living rates are designed to pay for one quarter of the future cost of living costs. Member contributions are refundable upon termination from the System.

The Employer rates are actuarially determined to provide for the balance of the contributions needed to fund the benefits promised under the Retirement System.

**B. Summary of Assumptions and Funding Method**

*Assumptions*

<i>Valuation Interest Rate</i>	8.00%
<i>Post-Retirement Mortality</i>	
(a) <i>Service</i>	
<i>Males</i>	1994 Male Group Annuity Mortality Table set back two years
<i>Females</i>	1994 Female Group Annuity Mortality Table with no set back
<i>Safety</i>	1994 Male Group Annuity Mortality Table with no set back
(b) <i>Disability</i>	
<i>General</i>	1981 General Disability Mortality Table with no set back
<i>Safety</i>	1981 Safety Disability Mortality Table set back one year
(c) <i>For Employee Contribution</i>	
<i>Rate Purposes</i>	
<i>General</i>	1994 Male Group Annuity Mortality Table with a three year set back
<i>Safety</i>	1994 Male Group Annuity Mortality Table with no set back
<i>Pre-Retirement Mortality</i>	Based upon the 06/30/2001 Experience Analysis
<i>Withdrawal Rates</i>	Based upon the 06/30/2001 Experience Analysis
<i>Disability Rates</i>	Based upon the 06/30/2001 Experience Analysis
<i>Service Retirement Rates</i>	Based upon the 06/30/2001 Experience Analysis
<i>Salary Scales</i>	Total increases of 5.75% per year reflecting 4.25% for inflation and approximately 1.50% for merit and longevity
<i>Assets</i>	Valued at Smoothed Actuarial Value as described in Actuarial Valuation Methods Section of this report
<i>Percentage of Members Married at Retirement</i>	70% for male members and 50% for female members
<i>Terminated Members Eligible for Reciprocal Benefits</i>	60%
<i>Funding Method</i>	The County's liability is being funded on the Entry Age Normal Method. The amortization period for the Unfunded Actuarial Accrued Liability is 22 years from the June 30, 2002 valuation date.
<i>Average Entry Ages (for Member Rates)</i>	General = 36; Safety = 29.

PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT

General Male Members - Tier 1

Age	With(0<Svc<1)	With(1<Svc<2)	With(2<Svc<3)	With(3<Svc<4)	With(4<Svc<5)	With(Svc>5)	Vested Term	Ord. Disab	Duty Disab	Ord. Dth	Duty Dth	Svc Ret
<= 20	0.1040	0.1040	0.1040	0.1040	0.1040	0.1040	0.0150	0.0000	0.0001	0.0005	0.0001	0.0000
21	0.1010	0.1010	0.1010	0.1010	0.1010	0.0965	0.0150	0.0000	0.0001	0.0005	0.0001	0.0000
22	0.0980	0.0980	0.0980	0.0980	0.0980	0.0891	0.0150	0.0000	0.0001	0.0005	0.0001	0.0000
23	0.0950	0.0950	0.0950	0.0950	0.0950	0.0796	0.0150	0.0000	0.0001	0.0006	0.0001	0.0000
24	0.0920	0.0920	0.0920	0.0920	0.0920	0.0705	0.0150	0.0000	0.0001	0.0006	0.0001	0.0000
25	0.0900	0.0900	0.0900	0.0900	0.0900	0.0618	0.0150	0.0025	0.0001	0.0006	0.0001	0.0000
26	0.0850	0.0850	0.0850	0.0850	0.0850	0.0534	0.0150	0.0025	0.0001	0.0007	0.0001	0.0000
27	0.0800	0.0800	0.0800	0.0800	0.0800	0.0454	0.0150	0.0025	0.0001	0.0007	0.0001	0.0000
28	0.0750	0.0750	0.0750	0.0750	0.0750	0.0399	0.0150	0.0025	0.0001	0.0007	0.0001	0.0000
29	0.0700	0.0700	0.0700	0.0700	0.0700	0.0340	0.0150	0.0025	0.0001	0.0008	0.0001	0.0000
30	0.0660	0.0660	0.0660	0.0660	0.0660	0.0343	0.0150	0.0025	0.0001	0.0008	0.0001	0.0000
31	0.0620	0.0620	0.0620	0.0620	0.0620	0.0347	0.0150	0.0025	0.0001	0.0008	0.0001	0.0000
32	0.0570	0.0570	0.0570	0.0570	0.0570	0.0351	0.0150	0.0025	0.0001	0.0009	0.0001	0.0000
33	0.0530	0.0530	0.0530	0.0530	0.0530	0.0354	0.0150	0.0025	0.0001	0.0009	0.0001	0.0000
34	0.0480	0.0480	0.0480	0.0480	0.0480	0.0358	0.0150	0.0025	0.0001	0.0009	0.0001	0.0000
35	0.0460	0.0460	0.0460	0.0460	0.0460	0.0361	0.0125	0.0025	0.0002	0.0009	0.0001	0.0000
36	0.0440	0.0440	0.0440	0.0440	0.0440	0.0401	0.0125	0.0025	0.0002	0.0009	0.0001	0.0000
37	0.0410	0.0410	0.0410	0.0410	0.0410	0.0425	0.0125	0.0025	0.0003	0.0009	0.0001	0.0000
38	0.0380	0.0380	0.0380	0.0380	0.0380	0.0347	0.0125	0.0025	0.0004	0.0009	0.0001	0.0000
39	0.0350	0.0350	0.0350	0.0350	0.0350	0.0276	0.0125	0.0025	0.0005	0.0010	0.0001	0.0000
40	0.0290	0.0290	0.0290	0.0290	0.0290	0.0206	0.0125	0.0025	0.0006	0.0010	0.0001	0.0000
41	0.0262	0.0262	0.0262	0.0262	0.0262	0.0146	0.0125	0.0025	0.0007	0.0011	0.0001	0.0000
42	0.0235	0.0235	0.0235	0.0235	0.0235	0.0096	0.0125	0.0025	0.0007	0.0012	0.0001	0.0000
43	0.0208	0.0208	0.0208	0.0208	0.0208	0.0074	0.0125	0.0025	0.0009	0.0012	0.0001	0.0000
44	0.0181	0.0181	0.0181	0.0181	0.0181	0.0055	0.0125	0.0025	0.0010	0.0013	0.0001	0.0000
45	0.0166	0.0166	0.0166	0.0166	0.0166	0.0055	0.0108	0.0025	0.0011	0.0015	0.0001	0.0000
46	0.0148	0.0148	0.0148	0.0148	0.0148	0.0053	0.0092	0.0029	0.0013	0.0016	0.0001	0.0000
47	0.0129	0.0129	0.0129	0.0129	0.0129	0.0046	0.0075	0.0034	0.0014	0.0017	0.0001	0.0000
48	0.0111	0.0111	0.0111	0.0111	0.0111	0.0041	0.0058	0.0037	0.0017	0.0019	0.0001	0.0000
49	0.0102	0.0102	0.0102	0.0102	0.0102	0.0036	0.0042	0.0040	0.0020	0.0020	0.0001	0.0000
50	0.0102	0.0102	0.0102	0.0102	0.0102	0.0032	0.0042	0.0045	0.0022	0.0023	0.0001	0.0418
51	0.0097	0.0097	0.0097	0.0097	0.0097	0.0028	0.0042	0.0045	0.0025	0.0025	0.0001	0.0359
52	0.0092	0.0092	0.0092	0.0092	0.0092	0.0024	0.0042	0.0045	0.0028	0.0028	0.0001	0.0260
53	0.0087	0.0087	0.0087	0.0087	0.0087	0.0020	0.0042	0.0045	0.0029	0.0031	0.0001	0.0214
54	0.0082	0.0082	0.0082	0.0082	0.0082	0.0017	0.0042	0.0045	0.0031	0.0035	0.0001	0.0254
55	0.0078	0.0078	0.0078	0.0078	0.0078	0.0000	0.0000	0.0045	0.0033	0.0039	0.0001	0.0560
56	0.0074	0.0074	0.0074	0.0074	0.0074	0.0000	0.0000	0.0045	0.0035	0.0043	0.0001	0.0665
57	0.0069	0.0069	0.0069	0.0069	0.0069	0.0000	0.0000	0.0045	0.0038	0.0048	0.0001	0.0767
58	0.0064	0.0064	0.0064	0.0064	0.0064	0.0000	0.0000	0.0045	0.0041	0.0053	0.0001	0.0979
59	0.0059	0.0059	0.0059	0.0059	0.0059	0.0000	0.0000	0.0045	0.0044	0.0060	0.0001	0.1209
60	0.0055	0.0055	0.0055	0.0055	0.0055	0.0000	0.0000	0.0045	0.0048	0.0068	0.0001	0.1525
61	0.0050	0.0050	0.0050	0.0050	0.0050	0.0000	0.0000	0.0045	0.0053	0.0076	0.0001	0.2608
62	0.0050	0.0050	0.0050	0.0050	0.0050	0.0000	0.0000	0.0045	0.0059	0.0086	0.0001	0.3475
63	0.0045	0.0045	0.0045	0.0045	0.0045	0.0000	0.0000	0.0045	0.0065	0.0097	0.0001	0.3476
64	0.0045	0.0045	0.0045	0.0045	0.0045	0.0000	0.0000	0.0045	0.0071	0.0109	0.0001	0.3600
65	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0045	0.0077	0.0123	0.0001	0.4169
66	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0045	0.0083	0.0139	0.0001	0.4478
67	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0045	0.0090	0.0156	0.0001	0.4788
68	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0045	0.0097	0.0175	0.0001	0.5472
69	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0045	0.0104	0.0194	0.0001	0.6840
70	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000

PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT  
General Female Members - Tier I

Age	With(0<Svc<1)	With(1<Svc<2)	With(2<Svc<3)	With(3<Svc<4)	With(4<Svc<5)	With(Svc>5)	Vested Term	Ord. Disab	Duty Disab	Ord. Dth	Duty Dth	Svc Ret
<= 20	0.1250	0.1250	0.1250	0.1250	0.1250	0.1250	0.0150	0.0000	0.0000	0.0003	0.0000	0.0000
21	0.1150	0.1150	0.1150	0.1150	0.1150	0.1150	0.0150	0.0000	0.0000	0.0003	0.0000	0.0000
22	0.1060	0.1060	0.1060	0.1060	0.1060	0.1060	0.0150	0.0000	0.0000	0.0003	0.0000	0.0000
23	0.0980	0.0980	0.0980	0.0980	0.0980	0.0980	0.0150	0.0000	0.0000	0.0003	0.0000	0.0000
24	0.0930	0.0930	0.0930	0.0930	0.0930	0.0930	0.0150	0.0000	0.0000	0.0003	0.0000	0.0000
25	0.0900	0.0900	0.0900	0.0900	0.0900	0.0858	0.0150	0.0001	0.0001	0.0003	0.0000	0.0000
26	0.0880	0.0880	0.0880	0.0880	0.0880	0.0786	0.0150	0.0001	0.0001	0.0003	0.0000	0.0000
27	0.0860	0.0860	0.0860	0.0860	0.0860	0.0714	0.0150	0.0001	0.0001	0.0003	0.0000	0.0000
28	0.0840	0.0840	0.0840	0.0840	0.0840	0.0614	0.0150	0.0001	0.0001	0.0003	0.0000	0.0000
29	0.0820	0.0820	0.0820	0.0820	0.0820	0.0520	0.0150	0.0001	0.0001	0.0004	0.0000	0.0000
30	0.0759	0.0759	0.0759	0.0759	0.0759	0.0432	0.0150	0.0002	0.0001	0.0004	0.0000	0.0000
31	0.0711	0.0711	0.0711	0.0711	0.0711	0.0351	0.0150	0.0002	0.0001	0.0004	0.0000	0.0000
32	0.0663	0.0663	0.0663	0.0663	0.0663	0.0276	0.0150	0.0002	0.0001	0.0004	0.0000	0.0000
33	0.0615	0.0615	0.0615	0.0615	0.0615	0.0210	0.0150	0.0003	0.0001	0.0005	0.0000	0.0000
34	0.0567	0.0567	0.0567	0.0567	0.0567	0.0149	0.0150	0.0003	0.0001	0.0005	0.0000	0.0000
35	0.0479	0.0479	0.0479	0.0479	0.0479	0.0113	0.0125	0.0002	0.0002	0.0005	0.0000	0.0000
36	0.0452	0.0452	0.0452	0.0452	0.0452	0.0101	0.0125	0.0003	0.0002	0.0006	0.0000	0.0000
37	0.0408	0.0408	0.0408	0.0408	0.0408	0.0086	0.0125	0.0004	0.0002	0.0006	0.0000	0.0000
38	0.0364	0.0364	0.0364	0.0364	0.0364	0.0073	0.0125	0.0004	0.0002	0.0006	0.0000	0.0000
39	0.0328	0.0328	0.0328	0.0328	0.0328	0.0063	0.0125	0.0005	0.0002	0.0007	0.0000	0.0000
40	0.0293	0.0293	0.0293	0.0293	0.0293	0.0065	0.0125	0.0010	0.0002	0.0008	0.0000	0.0000
41	0.0275	0.0275	0.0275	0.0275	0.0275	0.0055	0.0125	0.0014	0.0002	0.0008	0.0000	0.0000
42	0.0258	0.0258	0.0258	0.0258	0.0258	0.0046	0.0125	0.0017	0.0003	0.0009	0.0000	0.0000
43	0.0241	0.0241	0.0241	0.0241	0.0241	0.0041	0.0125	0.0023	0.0003	0.0009	0.0000	0.0000
44	0.0224	0.0224	0.0224	0.0224	0.0224	0.0035	0.0125	0.0029	0.0003	0.0010	0.0000	0.0000
45	0.0215	0.0215	0.0215	0.0215	0.0215	0.0029	0.0100	0.0036	0.0004	0.0010	0.0000	0.0000
46	0.0206	0.0206	0.0206	0.0206	0.0206	0.0029	0.0100	0.0044	0.0004	0.0011	0.0000	0.0000
47	0.0197	0.0197	0.0197	0.0197	0.0197	0.0029	0.0100	0.0050	0.0004	0.0012	0.0000	0.0000
48	0.0188	0.0188	0.0188	0.0188	0.0188	0.0029	0.0100	0.0050	0.0006	0.0013	0.0000	0.0000
49	0.0179	0.0179	0.0179	0.0179	0.0179	0.0029	0.0100	0.0050	0.0007	0.0014	0.0000	0.0000
50	0.0184	0.0184	0.0184	0.0184	0.0184	0.0026	0.0070	0.0050	0.0008	0.0015	0.0000	0.0702
51	0.0175	0.0175	0.0175	0.0175	0.0175	0.0026	0.0070	0.0050	0.0010	0.0017	0.0000	0.0491
52	0.0165	0.0165	0.0165	0.0165	0.0165	0.0026	0.0070	0.0050	0.0012	0.0019	0.0000	0.0408
53	0.0155	0.0155	0.0155	0.0155	0.0155	0.0023	0.0070	0.0050	0.0013	0.0021	0.0000	0.0472
54	0.0146	0.0146	0.0146	0.0146	0.0146	0.0023	0.0070	0.0050	0.0015	0.0022	0.0000	0.0540
55	0.0137	0.0137	0.0137	0.0137	0.0137	0.0000	0.0000	0.0050	0.0017	0.0025	0.0000	0.0701
56	0.0127	0.0127	0.0127	0.0127	0.0127	0.0000	0.0000	0.0050	0.0018	0.0028	0.0000	0.0861
57	0.0113	0.0113	0.0113	0.0113	0.0113	0.0000	0.0000	0.0050	0.0020	0.0031	0.0000	0.1022
58	0.0098	0.0098	0.0098	0.0098	0.0098	0.0000	0.0000	0.0050	0.0019	0.0036	0.0000	0.1182
59	0.0088	0.0088	0.0088	0.0088	0.0088	0.0000	0.0000	0.0050	0.0018	0.0042	0.0000	0.1343
60	0.0080	0.0080	0.0080	0.0080	0.0080	0.0000	0.0000	0.0050	0.0017	0.0048	0.0000	0.1503
61	0.0070	0.0070	0.0070	0.0070	0.0070	0.0000	0.0000	0.0050	0.0016	0.0055	0.0000	0.2154
62	0.0060	0.0060	0.0060	0.0060	0.0060	0.0000	0.0000	0.0050	0.0015	0.0063	0.0000	0.3147
63	0.0050	0.0050	0.0050	0.0050	0.0050	0.0000	0.0000	0.0050	0.0016	0.0072	0.0000	0.2790
64	0.0040	0.0040	0.0040	0.0040	0.0040	0.0000	0.0000	0.0050	0.0018	0.0082	0.0000	0.2844
65	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0021	0.0093	0.0000	0.6000
66	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0022	0.0104	0.0000	0.4729
67	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0024	0.0116	0.0000	0.5618
68	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0024	0.0126	0.0000	0.6420
69	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0050	0.0024	0.0137	0.0000	0.8025
70	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000

PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT  
 General Male Members - Tiers 2 & 3

Age	With(0<Svc<1)	With(1<Svc<2)	With(2<Svc<3)	With(3<Svc<4)	With(4<Svc<5)	With(Svc>5)	Vested Term	Ord. Disab	Duty Disab	Ord. Dth	Duty Dth	Svc Ret
<= 20	0.0932	0.0628	0.0470	0.0440	0.0250	0.1022	0.1817	0.0000	0.0001	0.0005	0.0001	0.0000
21	0.0932	0.0628	0.0470	0.0440	0.0250	0.0992	0.1647	0.0000	0.0001	0.0005	0.0001	0.0000
22	0.0932	0.0628	0.0470	0.0440	0.0250	0.0963	0.1478	0.0000	0.0001	0.0005	0.0001	0.0000
23	0.0932	0.0628	0.0470	0.0440	0.0250	0.0916	0.1309	0.0000	0.0001	0.0006	0.0001	0.0000
24	0.0932	0.0628	0.0470	0.0440	0.0250	0.0871	0.1139	0.0000	0.0001	0.0006	0.0001	0.0000
25	0.0932	0.0628	0.0470	0.0440	0.0250	0.0731	0.0970	0.0001	0.0001	0.0006	0.0001	0.0000
26	0.0932	0.0628	0.0470	0.0440	0.0250	0.0596	0.0801	0.0001	0.0001	0.0007	0.0001	0.0000
27	0.0932	0.0628	0.0470	0.0440	0.0250	0.0465	0.0632	0.0001	0.0001	0.0007	0.0001	0.0000
28	0.0932	0.0628	0.0470	0.0440	0.0250	0.0407	0.0462	0.0001	0.0002	0.0007	0.0001	0.0000
29	0.0932	0.0628	0.0470	0.0440	0.0250	0.0307	0.0400	0.0001	0.0003	0.0008	0.0001	0.0000
30	0.0932	0.0628	0.0470	0.0440	0.0250	0.0240	0.0300	0.0002	0.0003	0.0008	0.0001	0.0000
31	0.0932	0.0628	0.0470	0.0440	0.0250	0.0228	0.0300	0.0002	0.0003	0.0008	0.0001	0.0000
32	0.0932	0.0628	0.0470	0.0440	0.0250	0.0216	0.0300	0.0002	0.0003	0.0009	0.0001	0.0000
33	0.0932	0.0628	0.0470	0.0440	0.0250	0.0216	0.0300	0.0002	0.0003	0.0009	0.0001	0.0000
34	0.0932	0.0628	0.0470	0.0440	0.0250	0.0216	0.0300	0.0002	0.0003	0.0009	0.0001	0.0000
35	0.0932	0.0628	0.0470	0.0440	0.0250	0.0216	0.0250	0.0002	0.0004	0.0009	0.0001	0.0000
36	0.0932	0.0628	0.0470	0.0440	0.0250	0.0216	0.0250	0.0003	0.0004	0.0009	0.0001	0.0000
37	0.0932	0.0628	0.0470	0.0440	0.0250	0.0218	0.0250	0.0003	0.0004	0.0009	0.0001	0.0000
38	0.0932	0.0628	0.0470	0.0440	0.0250	0.0210	0.0250	0.0008	0.0004	0.0009	0.0001	0.0000
39	0.0932	0.0628	0.0470	0.0440	0.0250	0.0202	0.0250	0.0010	0.0004	0.0010	0.0001	0.0000
40	0.0932	0.0628	0.0470	0.0440	0.0250	0.0194	0.0225	0.0013	0.0004	0.0010	0.0001	0.0000
41	0.0932	0.0628	0.0470	0.0440	0.0250	0.0186	0.0225	0.0014	0.0004	0.0011	0.0001	0.0000
42	0.0932	0.0628	0.0470	0.0440	0.0250	0.0178	0.0225	0.0016	0.0004	0.0012	0.0001	0.0000
43	0.0932	0.0628	0.0470	0.0440	0.0250	0.0169	0.0225	0.0017	0.0004	0.0012	0.0001	0.0000
44	0.0932	0.0628	0.0470	0.0440	0.0250	0.0160	0.0225	0.0019	0.0004	0.0013	0.0001	0.0000
45	0.0932	0.0628	0.0470	0.0440	0.0250	0.0138	0.0210	0.0020	0.0005	0.0015	0.0001	0.0000
46	0.0932	0.0628	0.0470	0.0440	0.0250	0.0129	0.0210	0.0023	0.0005	0.0016	0.0001	0.0000
47	0.0932	0.0628	0.0470	0.0440	0.0250	0.0120	0.0210	0.0027	0.0006	0.0017	0.0001	0.0000
48	0.0932	0.0628	0.0470	0.0440	0.0250	0.0120	0.0210	0.0028	0.0006	0.0019	0.0001	0.0000
49	0.0932	0.0628	0.0470	0.0440	0.0250	0.0120	0.0210	0.0029	0.0007	0.0020	0.0001	0.0000
50	0.0932	0.0628	0.0470	0.0440	0.0250	0.0105	0.0200	0.0032	0.0008	0.0023	0.0001	0.0178
51	0.0932	0.0628	0.0470	0.0440	0.0250	0.0100	0.0200	0.0032	0.0009	0.0025	0.0001	0.0194
52	0.0932	0.0628	0.0470	0.0440	0.0250	0.0095	0.0200	0.0034	0.0010	0.0028	0.0001	0.0172
53	0.0932	0.0628	0.0470	0.0440	0.0250	0.0090	0.0200	0.0035	0.0011	0.0031	0.0001	0.0125
54	0.0932	0.0628	0.0470	0.0440	0.0250	0.0085	0.0200	0.0037	0.0012	0.0035	0.0001	0.0127
55	0.0932	0.0628	0.0470	0.0440	0.0250	0.0080	0.0200	0.0039	0.0012	0.0039	0.0001	0.0614
56	0.0932	0.0628	0.0470	0.0440	0.0250	0.0075	0.0200	0.0041	0.0013	0.0043	0.0001	0.0577
57	0.0932	0.0628	0.0470	0.0440	0.0250	0.0070	0.0200	0.0043	0.0015	0.0048	0.0001	0.0487
58	0.0932	0.0628	0.0470	0.0440	0.0250	0.0065	0.0200	0.0046	0.0017	0.0053	0.0001	0.0613
59	0.0932	0.0628	0.0470	0.0440	0.0250	0.0060	0.0200	0.0047	0.0018	0.0060	0.0001	0.0747
60	0.0932	0.0628	0.0470	0.0440	0.0250	0.0055	0.0200	0.0049	0.0021	0.0068	0.0001	0.1042
61	0.0932	0.0628	0.0470	0.0440	0.0250	0.0050	0.0200	0.0049	0.0023	0.0076	0.0001	0.1762
62	0.0932	0.0628	0.0470	0.0440	0.0250	0.0050	0.0200	0.0049	0.0026	0.0086	0.0001	0.2325
63	0.0932	0.0628	0.0470	0.0440	0.0250	0.0045	0.0200	0.0049	0.0029	0.0097	0.0001	0.1977
64	0.0932	0.0628	0.0470	0.0440	0.0250	0.0045	0.0200	0.0049	0.0031	0.0109	0.0001	0.1744
65	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	0.0049	0.0034	0.0123	0.0001	0.6474
66	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	0.0049	0.0036	0.0139	0.0001	0.5914
67	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	0.0049	0.0039	0.0156	0.0001	0.5354
68	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	0.0049	0.0042	0.0175	0.0001	0.6119
69	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0200	0.0049	0.0045	0.0194	0.0001	0.7648
70	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000





**PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT**  
*General Female Members - Tiers 2 & 3*

Age	With(0<Svc<1)	With(1<Svc<2)	With(2<Svc<3)	With(3<Svc<4)	With(4<Svc<5)	With(Svc>5)	Vested Term	Ord. Disab	Duty Disab	Ord. Dth	Duty Dth	Svc Ret
<= 20	0.1050	0.0850	0.0538	0.1000	0.0350	0.1500	0.1400	0.0000	0.0000	0.0003	0.0000	0.0000
21	0.1050	0.0850	0.0538	0.1000	0.0350	0.1368	0.1300	0.0000	0.0000	0.0003	0.0000	0.0000
22	0.1050	0.0850	0.0538	0.1000	0.0350	0.1236	0.1200	0.0000	0.0000	0.0003	0.0000	0.0000
23	0.1050	0.0850	0.0538	0.1000	0.0350	0.1145	0.1036	0.0000	0.0000	0.0003	0.0000	0.0000
24	0.1050	0.0850	0.0538	0.1000	0.0350	0.1045	0.0872	0.0000	0.0000	0.0003	0.0000	0.0000
25	0.1050	0.0850	0.0538	0.0750	0.0350	0.0934	0.0707	0.0001	0.0001	0.0003	0.0000	0.0000
26	0.1050	0.0850	0.0538	0.0750	0.0350	0.0897	0.0543	0.0001	0.0001	0.0003	0.0000	0.0000
27	0.1050	0.0850	0.0538	0.0750	0.0350	0.0856	0.0379	0.0001	0.0001	0.0003	0.0000	0.0000
28	0.1050	0.0850	0.0538	0.0750	0.0350	0.0720	0.0355	0.0001	0.0001	0.0003	0.0000	0.0000
29	0.1050	0.0850	0.0538	0.0750	0.0350	0.0596	0.0331	0.0001	0.0001	0.0004	0.0000	0.0000
30	0.1050	0.0850	0.0538	0.0600	0.0350	0.0484	0.0307	0.0002	0.0001	0.0004	0.0000	0.0000
31	0.1050	0.0850	0.0538	0.0600	0.0350	0.0383	0.0283	0.0002	0.0001	0.0004	0.0000	0.0000
32	0.1050	0.0850	0.0538	0.0600	0.0350	0.0294	0.0259	0.0002	0.0001	0.0004	0.0000	0.0000
33	0.1050	0.0850	0.0538	0.0600	0.0350	0.0286	0.0262	0.0003	0.0001	0.0005	0.0000	0.0000
34	0.1050	0.0850	0.0538	0.0600	0.0350	0.0267	0.0260	0.0003	0.0001	0.0005	0.0000	0.0000
35	0.1050	0.0850	0.0538	0.0500	0.0350	0.0237	0.0260	0.0003	0.0002	0.0005	0.0000	0.0000
36	0.1050	0.0850	0.0538	0.0500	0.0350	0.0245	0.0260	0.0005	0.0002	0.0006	0.0000	0.0000
37	0.1050	0.0850	0.0538	0.0500	0.0350	0.0239	0.0260	0.0007	0.0002	0.0006	0.0000	0.0000
38	0.1050	0.0850	0.0538	0.0500	0.0350	0.0240	0.0260	0.0007	0.0002	0.0006	0.0000	0.0000
39	0.1050	0.0850	0.0538	0.0500	0.0350	0.0240	0.0260	0.0008	0.0002	0.0007	0.0000	0.0000
40	0.1050	0.0850	0.0538	0.0450	0.0350	0.0220	0.0220	0.0008	0.0001	0.0008	0.0000	0.0000
41	0.1050	0.0850	0.0538	0.0450	0.0350	0.0220	0.0220	0.0009	0.0001	0.0008	0.0000	0.0000
42	0.1050	0.0850	0.0538	0.0450	0.0350	0.0216	0.0220	0.0009	0.0002	0.0009	0.0000	0.0000
43	0.1050	0.0850	0.0538	0.0450	0.0350	0.0191	0.0220	0.0010	0.0002	0.0009	0.0000	0.0000
44	0.1050	0.0850	0.0538	0.0450	0.0350	0.0165	0.0220	0.0010	0.0003	0.0010	0.0000	0.0000
45	0.1050	0.0850	0.0538	0.0350	0.0350	0.0139	0.0160	0.0011	0.0001	0.0010	0.0000	0.0000
46	0.1050	0.0850	0.0538	0.0350	0.0350	0.0114	0.0160	0.0011	0.0002	0.0011	0.0000	0.0000
47	0.1050	0.0850	0.0538	0.0350	0.0350	0.0088	0.0160	0.0011	0.0002	0.0012	0.0000	0.0000
48	0.1050	0.0850	0.0538	0.0350	0.0350	0.0082	0.0160	0.0014	0.0002	0.0013	0.0000	0.0000
49	0.1050	0.0850	0.0538	0.0350	0.0350	0.0076	0.0160	0.0017	0.0003	0.0014	0.0000	0.0000
50	0.1050	0.0850	0.0538	0.0300	0.0350	0.0070	0.0150	0.0020	0.0006	0.0015	0.0000	0.0458
51	0.1050	0.0850	0.0538	0.0300	0.0350	0.0066	0.0150	0.0023	0.0009	0.0017	0.0000	0.0296
52	0.1050	0.0850	0.0538	0.0300	0.0350	0.0066	0.0150	0.0026	0.0012	0.0019	0.0000	0.0227
53	0.1050	0.0850	0.0538	0.0300	0.0350	0.0066	0.0150	0.0031	0.0015	0.0021	0.0000	0.0256
54	0.1050	0.0850	0.0538	0.0300	0.0350	0.0066	0.0150	0.0036	0.0018	0.0022	0.0000	0.0286
55	0.1050	0.0850	0.0538	0.0150	0.0350	0.0066	0.0150	0.0041	0.0021	0.0025	0.0000	0.0535
56	0.1050	0.0850	0.0538	0.0150	0.0350	0.0066	0.0150	0.0048	0.0022	0.0028	0.0000	0.0747
57	0.1050	0.0850	0.0538	0.0150	0.0350	0.0061	0.0150	0.0055	0.0023	0.0031	0.0000	0.0896
58	0.1050	0.0850	0.0538	0.0150	0.0350	0.0059	0.0150	0.0058	0.0023	0.0036	0.0000	0.1033
59	0.1050	0.0850	0.0538	0.0150	0.0350	0.0059	0.0150	0.0062	0.0023	0.0042	0.0000	0.1349
60	0.1050	0.0850	0.0538	0.0100	0.0350	0.0048	0.0102	0.0066	0.0023	0.0048	0.0000	0.1232
61	0.1050	0.0850	0.0538	0.0100	0.0350	0.0046	0.0102	0.0069	0.0024	0.0055	0.0000	0.2041
62	0.1050	0.0850	0.0538	0.0100	0.0350	0.0042	0.0102	0.0074	0.0024	0.0063	0.0000	0.4000
63	0.1050	0.0850	0.0538	0.0100	0.0350	0.0038	0.0102	0.0083	0.0025	0.0072	0.0000	0.3130
64	0.1050	0.0850	0.0538	0.0100	0.0350	0.0032	0.0102	0.0093	0.0025	0.0082	0.0000	0.3281
65	0.1050	0.0850	0.0538	0.0000	0.0350	0.0000	0.0000	0.0104	0.0026	0.0093	0.0000	0.7500
66	0.1050	0.0850	0.0538	0.0000	0.0350	0.0000	0.0000	0.0115	0.0026	0.0104	0.0000	0.4986
67	0.1050	0.0850	0.0538	0.0000	0.0350	0.0000	0.0000	0.0127	0.0026	0.0116	0.0000	0.6061
68	0.1050	0.0850	0.0538	0.0000	0.0350	0.0000	0.0000	0.0133	0.0026	0.0126	0.0000	0.6927
69	0.1050	0.0850	0.0538	0.0000	0.0350	0.0000	0.0000	0.0139	0.0026	0.0137	0.0000	0.8659
70	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000

PROBABILITIES OF SEPARATION PRIOR TO RETIREMENT  
Safety Members

Age	With(0<Svc<1)	With(1<Svc<2)	With(2<Svc<3)	With(3<Svc<4)	With(4<Svc<5)	With(Svc>5)	Vested Term	Ord. Disab	Duty Disab	Ord. Dth	Duty Dth	Svc Ret
<= 20	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0000	0.0005	0.0005	0.0002	0.0000
21	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0000	0.0006	0.0006	0.0002	0.0000
22	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0000	0.0007	0.0006	0.0002	0.0000
23	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0000	0.0007	0.0006	0.0002	0.0000
24	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0000	0.0007	0.0007	0.0002	0.0000
25	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0002	0.0009	0.0007	0.0002	0.0000
26	0.0600	0.0250	0.0200	0.0200	0.0100	0.0070	0.0500	0.0002	0.0011	0.0007	0.0002	0.0000
27	0.0600	0.0250	0.0200	0.0200	0.0100	0.0068	0.0142	0.0003	0.0012	0.0008	0.0002	0.0000
28	0.0600	0.0250	0.0200	0.0200	0.0100	0.0065	0.0139	0.0003	0.0015	0.0008	0.0002	0.0000
29	0.0600	0.0250	0.0200	0.0200	0.0100	0.0063	0.0136	0.0004	0.0018	0.0008	0.0002	0.0000
30	0.0600	0.0250	0.0200	0.0200	0.0100	0.0060	0.0132	0.0004	0.0018	0.0009	0.0002	0.0000
31	0.0600	0.0250	0.0200	0.0200	0.0100	0.0060	0.0129	0.0005	0.0022	0.0009	0.0002	0.0000
32	0.0600	0.0250	0.0200	0.0200	0.0100	0.0060	0.0126	0.0005	0.0026	0.0009	0.0002	0.0000
33	0.0600	0.0250	0.0200	0.0200	0.0100	0.0060	0.0115	0.0006	0.0028	0.0009	0.0002	0.0000
34	0.0600	0.0250	0.0200	0.0200	0.0100	0.0060	0.0104	0.0006	0.0031	0.0009	0.0002	0.0000
35	0.0600	0.0250	0.0200	0.0200	0.0100	0.0055	0.0096	0.0007	0.0035	0.0009	0.0002	0.0000
36	0.0600	0.0250	0.0200	0.0200	0.0100	0.0055	0.0089	0.0008	0.0039	0.0009	0.0002	0.0000
37	0.0600	0.0250	0.0200	0.0200	0.0100	0.0055	0.0081	0.0009	0.0045	0.0010	0.0002	0.0000
38	0.0600	0.0250	0.0200	0.0200	0.0100	0.0055	0.0074	0.0010	0.0046	0.0010	0.0002	0.0000
39	0.0600	0.0250	0.0200	0.0200	0.0100	0.0055	0.0066	0.0011	0.0046	0.0011	0.0002	0.0000
40	0.0600	0.0250	0.0200	0.0200	0.0100	0.0050	0.0066	0.0012	0.0046	0.0012	0.0002	0.0000
41	0.0600	0.0250	0.0200	0.0200	0.0100	0.0050	0.0066	0.0013	0.0046	0.0012	0.0002	0.0000
42	0.0600	0.0250	0.0200	0.0200	0.0100	0.0050	0.0066	0.0014	0.0047	0.0013	0.0002	0.0000
43	0.0600	0.0250	0.0200	0.0200	0.0100	0.0050	0.0066	0.0015	0.0049	0.0015	0.0002	0.0000
44	0.0600	0.0250	0.0200	0.0200	0.0100	0.0050	0.0066	0.0017	0.0052	0.0016	0.0002	0.0000
45	0.0600	0.0000	0.0000	0.0000	0.0000	0.0050	0.0046	0.0019	0.0068	0.0017	0.0003	0.0020
46	0.0600	0.0000	0.0000	0.0000	0.0000	0.0050	0.0046	0.0021	0.0077	0.0019	0.0003	0.0040
47	0.0600	0.0000	0.0000	0.0000	0.0000	0.0050	0.0046	0.0023	0.0087	0.0020	0.0003	0.0075
48	0.0600	0.0000	0.0000	0.0000	0.0000	0.0050	0.0046	0.0025	0.0095	0.0023	0.0003	0.0146
49	0.0600	0.0000	0.0000	0.0000	0.0000	0.0050	0.0046	0.0028	0.0100	0.0025	0.0003	0.0283
50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0028	0.0100	0.0028	0.0003	0.0509
51	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0031	0.0100	0.0031	0.0003	0.0493
52	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0033	0.0100	0.0035	0.0003	0.0521
53	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0037	0.0100	0.0039	0.0003	0.0638
54	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0040	0.0100	0.0043	0.0003	0.0624
55	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0043	0.0100	0.0048	0.0004	0.3255
56	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0047	0.0100	0.0053	0.0004	0.3315
57	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0051	0.0100	0.0060	0.0004	0.2332
58	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0054	0.0100	0.0068	0.0004	0.2060
59	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0025	0.0058	0.0100	0.0076	0.0004	0.2176
60	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
61	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
62	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
63	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
64	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
65	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
66	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
67	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
68	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
69	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000
70	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	1.0000

Ratio of Current Compensation to Compensation  
Anticipated At Retirement Age

Age	General	Safety
20	0.041	0.085
21	0.046	0.093
22	0.051	0.103
23	0.057	0.112
24	0.063	0.123
25	0.069	0.134
26	0.076	0.146
27	0.083	0.159
28	0.089	0.173
29	0.097	0.187
30	0.104	0.202
31	0.112	0.217
32	0.120	0.233
33	0.129	0.249
34	0.138	0.265
35	0.147	0.282
36	0.157	0.300
37	0.167	0.317
38	0.178	0.336
39	0.190	0.355
40	0.202	0.375
41	0.215	0.396
42	0.229	0.417
43	0.243	0.440
44	0.258	0.464
45	0.274	0.489
46	0.290	0.515
47	0.308	0.542
48	0.326	0.571
49	0.345	0.601
50	0.365	0.632
51	0.386	0.665
52	0.408	0.700
53	0.430	0.737
54	0.454	0.776
55	0.478	0.816
56	0.504	0.859
57	0.530	0.904
58	0.557	0.952
59	0.586	1.000
60	0.616	
61	0.647	
62	0.680	
63	0.715	
64	0.750	
65	0.788	
66	0.827	
67	0.869	
68	0.912	
69	0.955	
70	1.000	

YEARS OF LIFE EXPECTANCY AFTER SERVICE RETIREMENT

Age	General		Safety		Age	General		Safety	
	Male	Female	Male	Female		Male	Female	Male	Female
50	31.87	34.24	30.01	34.24	81	8.46	9.30	7.51	9.30
51	30.94	33.29	29.09	33.29	82	7.97	8.74	7.07	8.74
52	30.01	32.34	28.18	32.34	83	7.51	8.20	6.65	8.20
53	29.09	31.40	27.28	31.40	84	7.07	7.68	6.24	7.68
54	28.18	30.47	26.38	30.47	85	6.65	7.18	5.86	7.18
55	27.28	29.53	25.49	29.53	86	6.24	6.71	5.48	6.71
56	26.38	28.61	24.61	28.61	87	5.86	6.25	5.12	6.25
57	25.49	27.68	23.74	27.68	88	5.48	5.83	4.78	5.83
58	24.61	26.77	22.88	26.77	89	5.12	5.42	4.45	5.42
59	23.74	25.86	22.04	25.86	90	4.78	5.05	4.15	5.05
60	22.88	24.97	21.20	24.97	91	4.45	4.70	3.87	4.70
61	22.04	24.09	20.38	24.09	92	4.15	4.37	3.61	4.37
62	21.20	23.22	19.57	23.22	93	3.87	4.07	3.37	4.07
63	20.38	22.36	18.78	22.36	94	3.61	3.79	3.15	3.79
64	19.57	21.52	18.01	21.52	95	3.37	3.53	2.95	3.53
65	18.78	20.69	17.26	20.69	96	3.15	3.28	2.77	3.28
66	18.01	19.88	16.53	19.88	97	2.95	3.06	2.61	3.06
67	17.26	19.09	15.81	19.09	98	2.77	2.85	2.46	2.85
68	16.53	18.30	15.11	18.30	99	2.61	2.65	2.33	2.65
69	15.81	17.53	14.43	17.53	100	2.46	2.48	2.21	2.48
70	15.11	16.77	13.77	16.77	101	2.33	2.31	2.09	2.31
71	14.43	16.01	13.11	16.01	102	2.21	2.16	1.98	2.16
72	13.77	15.26	12.48	15.26	103	2.09	2.02	1.87	2.02
73	13.11	14.53	11.85	14.53	104	1.98	1.89	1.77	1.89
74	12.48	13.81	11.25	13.81	105	1.87	1.78	1.68	1.78
75	11.85	13.11	10.66	13.11	106	1.77	1.69	1.62	1.69
76	11.25	12.43	10.08	12.43	107	1.68	1.62	1.57	1.62
77	10.66	11.76	9.52	11.76	108	1.62	1.56	1.53	1.56
78	10.08	11.11	8.98	11.11	109	1.57	1.51	1.50	1.51
79	9.52	10.49	8.46	10.49	110	1.53	1.48	1.47	1.48
80	8.98	9.88	7.97	9.88					

	Male	Female
General	1994 GAM Male -2,	1994 GAM Female
	Member	Beneficiary
Safety	1994 GAM Male	1994 GAM Female

**YEARS OF LIFE EXPECTANCY AFTER DISABILITY RETIREMENT**  
**General Members**

Age	Male & Female	Age	Male & Female	Age	Male & Female
20	38.73	50	21.08	80	7.00
21	37.98	51	20.59	81	6.63
22	37.26	52	20.11	82	6.27
23	36.56	53	19.63	83	5.94
24	35.87	54	19.16	84	5.63
25	35.19	55	18.68	85	5.34
26	34.53	56	18.21	86	5.06
27	33.87	57	17.75	87	4.80
28	33.23	58	17.29	88	4.55
29	32.60	59	16.83	89	4.31
30	31.98	60	16.37	90	4.09
31	31.37	61	15.91	91	3.87
32	30.76	62	15.45	92	3.66
33	30.17	63	14.99	93	3.46
34	29.58	64	14.53	94	3.26
35	29.00	65	14.07	95	3.07
36	28.43	66	13.60	96	2.89
37	27.87	67	13.13	97	2.71
38	27.31	68	12.66	98	2.54
39	26.76	69	12.18	99	2.37
40	26.21	70	11.70	100	2.20
41	25.67	71	11.21	101	2.04
42	25.14	72	10.72	102	1.88
43	24.61	73	10.22	103	1.72
44	24.09	74	9.73	104	1.55
45	23.57	75	9.24	105	1.38
46	23.06	76	8.76	106	1.21
47	22.56	77	8.28	107	1.04
48	22.06	78	7.83	108	0.88
49	21.57	79	7.41	109	0.71
				110	0.50

1981 Disability Table (General)

**YEARS OF LIFE EXPECTANCY AFTER DISABILITY RETIREMENT  
Safety Members**

Age	Male & Female	Age	Male & Female	Age	Male & Female
20	50.19	50	24.38	80	7.41
21	49.29	51	23.59	81	7.00
22	48.39	52	22.80	82	6.63
23	47.48	53	22.03	83	6.27
24	46.58	54	21.26	84	5.94
25	45.68	55	20.50	85	5.63
26	44.79	56	19.77	86	5.34
27	43.89	57	19.06	87	5.06
28	43.01	58	18.40	88	4.80
29	42.12	59	17.78	89	4.55
30	41.24	60	17.20	90	4.31
31	40.36	61	16.64	91	4.09
32	39.48	62	16.11	92	3.87
33	38.61	63	15.59	93	3.66
34	37.74	64	15.08	94	3.46
35	36.88	65	14.58	95	3.26
36	36.02	66	14.09	96	3.07
37	35.16	67	13.61	97	2.89
38	34.31	68	13.13	98	2.71
39	33.45	69	12.66	99	2.54
40	32.61	70	12.18	100	2.37
41	31.77	71	11.70	101	2.20
42	30.93	72	11.21	102	2.04
43	30.09	73	10.72	103	1.88
44	29.26	74	10.22	104	1.72
45	28.43	75	9.73	105	1.55
46	27.61	76	9.24	106	1.38
47	26.80	77	8.76	107	1.21
48	25.98	78	8.28	108	1.04
49	25.18	79	7.83	109	0.88
				110	0.71

1981 Disability Table (Safety) - 1

**C. Summary of Membership and Benefit Statistics**

**Sacramento County Employees Retirement System  
Active General Tier 1 Members**

Age Group	Years of Service									
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0-19										
20-24										
25-29										
30-34										
35-39				1	2					3
40-44				45,416	44,274					44,654
45-49				8	51	1				60
				38,620	51,249	57,921				49,676
	2	2	5	13	145	77				244
	29,642	55,030	49,953	54,019	61,075	55,142				58,292
50-54	1	6	5	21	199	152	63	2		449
	34,853	50,708	47,594	65,660	63,168	65,324	62,976	49,775		63,525
55-59	3	3	5	16	83	134	143	42	3	432
	58,125	41,559	62,245	58,740	59,936	66,043	66,627	60,734	64,584	63,997
60-64	1		2	3	32	29	28	11	3	109
	39,411		52,112	47,137	51,512	63,676	62,626	48,262	48,257	56,965
65-69					5	5	2	1		13
					55,691	48,792	62,432	48,226		53,501
70-74					1	1				2
					90,901	37,345				64,123
75 +					1		1			2
					43,814		67,568			55,691
<b>Total</b>	<b>7</b>	<b>11</b>	<b>17</b>	<b>62</b>	<b>519</b>	<b>399</b>	<b>237</b>	<b>56</b>	<b>6</b>	<b>1,314</b>
	43,989	48,998	53,129	56,721	60,048	63,185	65,153	57,669	56,421	61,379

Total Salary: \$80,651,610  
 Average Age: 53.28  
 Average Service: 25.36

Sacramento County Employees Retirement System  
Active General Tier 2 and 3 Members

Years of Service

Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0-19	17									17
	23,175									23,175
20-24	400	1								401
	26,481	37,359								26,508
25-29	836	38	3							877
	33,651	45,475	44,207							34,199
30-34	929	214	73	1						1,217
	37,754	50,411	42,972	34,630						40,290
35-39	736	359	364	59	1					1,519
	38,954	51,654	50,931	52,566	38,378					45,354
40-44	778	346	448	207	10					1,789
	38,190	51,610	54,579	60,293	51,295					47,520
45-49	657	332	394	231	25					1,639
	39,320	51,431	54,406	58,878	58,765					48,453
50-54	566	261	375	218	26	3				1,449
	39,056	52,487	55,354	59,885	63,185	74,641				49,334
55-59	306	167	255	148	19	2	1			898
	41,186	52,584	52,664	54,517	66,911	38,777	55,136			49,317
60-64	117	82	100	75	6					380
	41,353	48,442	49,846	52,184	53,897					47,453
65-69	29	23	21	7	4		1			85
	38,985	43,277	47,290	39,963	54,149		47,957			43,098
70-74	11	4	9	1						25
	25,214	42,902	61,561	39,900						41,716
75 +	2	1	2	3						8
	14,168	59,306	76,431	35,333						43,313
<b>Total</b>	<b>5,384</b>	<b>1,828</b>	<b>2,044</b>	<b>950</b>	<b>91</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>10,304</b>
	<b>37,034</b>	<b>51,263</b>	<b>53,115</b>	<b>57,558</b>	<b>60,160</b>	<b>60,296</b>	<b>51,547</b>			<b>44,859</b>

Total Salary: \$462,225,552  
 Average Age: 42.55  
 Average Service: 6.12



Sacramento County Employees Retirement System  
Active Safety Tier 1 Members

Years of Service

Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0-19										0
20-24										0
25-29	5	7								12
	42,002	66,303								56,178
30-34	8	53	48							109
	45,794	66,601	69,625							66,405
35-39	7	47	160	35						249
	67,191	67,360	67,577	77,007						68,851
40-44	9	19	101	88	23					240
	60,527	72,749	68,677	75,169	80,677					72,224
45-49	9	8	43	55	96	17				228
	44,686	64,271	67,688	73,246	79,066	95,325				74,852
50-54	2	8	15	28	42	88	24			207
	78,375	75,094	66,483	66,979	71,201	81,356	84,097			76,320
55-59	2	1	10	7	11	25	12			68
	74,381	114,108	77,873	65,430	76,939	78,360	83,938			78,121
60-64		1	2	2	1	4	3			13
		87,695	69,584	91,831	64,427	81,456	76,906			79,346
65-69			2	1						3
			49,636	47,369						48,881
70-74			1							1
			73,378							73,738
75 +				1						1
				79,191						79,191
<b>Total</b>	<b>42</b>	<b>144</b>	<b>382</b>	<b>217</b>	<b>173</b>	<b>134</b>	<b>39</b>	<b>0</b>	<b>0</b>	<b>1,131</b>
	<b>54,741</b>	<b>68,464</b>	<b>68,297</b>	<b>73,651</b>	<b>77,151</b>	<b>82,572</b>	<b>83,495</b>			<b>72,412</b>

Total Salary: \$81,897,813  
 Average Age: 43.87  
 Average Service: 16.08

Sacramento County Employees Retirement System  
Active Safety Tier 2 Members

Years of Service

Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0-19										0
20-24	74									74
	42,186									42,186
25-29	336	37	1							374
	47,953	64,097	57,131							49,574
30-34	255	111	1	1						368
	52,492	62,498	55,954	68,194						55,562
35-39	101	72	24	2						199
	54,157	63,068	63,368	67,176						58,623
40-44	45	22	17	17	1					102
	51,076	63,314	60,896	66,468	55,602					57,962
45-49	20	11	13	13	6	1				64
	49,207	61,572	65,398	69,188	62,873	73,795				60,345
50-54	10	6	5	10	23	6				60
	58,803	68,803	64,341	55,282	64,108	68,752				62,706
55-59	6	2	1	2	11	14				36
	65,097	57,097	82,209	65,565	68,337	76,956				70,756
60-64	1			1	1	1	3			7
	76,671			133,501	66,713	59,271	96,472			89,368
65-69										0
70-74										0
75 +										0
<b>Total</b>	<b>848</b>	<b>261</b>	<b>62</b>	<b>46</b>	<b>42</b>	<b>22</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>1,284</b>
	50,032	63,015	63,278	66,291	64,899	73,771	96,472			54,895

Total Salary: \$70,484,627  
 Average Age: 34.07  
 Average Service: 4.87

Annual Benefit and Membership Distribution of Retired General Members and Beneficiaries

Years Since Retirement

Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0-19		5	1							6
		6,371	6,986							6,473
20-24		1								1
		13,408								13,408
25-29	1	1	2	2						6
	218	5,445	4,908	3,910						3,883
30-34	1		2	1						4
	11,315		8,487	5,410						8,425
35-39	7	1	1	1	2	1				13
	8,786	2,702	3,040	15,452	4,007	6,124				7,449
40-44	13	10	4	1	1					29
	11,343	14,892	9,161	8,556	5,299					11,961
45-49	17	16	9	2	1	1				46
	12,876	12,615	10,987	6,665	14,858	13,605				12,204
50-54	160	34	19	8	1					222
	12,162	11,464	13,239	11,815	8,430					12,118
55-59	286	208	28	16	9	1				548
	15,732	11,882	13,324	15,505	10,537	8,942				14,043
60-64	354	226	126	21	9	7	3		1	747
	19,624	18,235	11,267	11,250	11,382	6,293	9,598		11,343	17,283
65-69	261	318	190	89	24	10	4	1	1	898
	19,545	21,939	15,690	10,584	13,392	11,750	10,863	8,642	7,158	18,373
70-74	51	220	265	156	58	15	7			772
	14,217	21,457	19,737	11,241	9,427	9,227	10,294			17,082
75-79	5	29	178	226	168	37	4	2	1	650
	14,544	17,745	18,273	15,606	11,267	9,395	11,953	12,046	8,806	14,905
80-84	4	9	27	157	200	78	12		1	488
	31,238	17,504	12,208	16,493	12,716	7,434	9,518		10,576	13,216
85-89	1	4	5	23	90	86	16	5		230
	6,747	19,297	7,996	13,423	13,559	9,677	7,846	7,334		11,510
90+				1	14	47	26	4	3	95
				5,367	8,885	10,354	8,494	5,279	8,045	9,290
<b>Total</b>	<b>1,161</b>	<b>1,082</b>	<b>857</b>	<b>704</b>	<b>577</b>	<b>283</b>	<b>72</b>	<b>12</b>	<b>7</b>	<b>4,755</b>
	<b>17,108</b>	<b>18,330</b>	<b>16,395</b>	<b>13,857</b>	<b>11,929</b>	<b>9,099</b>	<b>9,066</b>	<b>7,543</b>	<b>8,860</b>	<b>15,513</b>

Total Retired Benefit: \$73,764,040  
 Average Age: 68.98  
 Average Years Retired: 11.62

Annual Benefit and Membership Distribution of Retired Safety Members and Beneficiaries

Years Since Retirement

Age Group	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
0-19										0
20-24										0
25-29	1									1
	15,887									15,887
30-34	1		1							2
	35,893		3,512							19,703
35-39	6	4								10
	23,783	19,643								22,127
40-44	6	5	2	1						14
	28,829	27,754	16,236	7,781						25,143
45-49	12	8	6	4						30
	23,723	23,500	23,848	29,861						24,507
50-54	56	16	11	8	4					95
	30,458	18,862	23,360	19,334	27,897					26,638
55-59	152	42	11	14	5					224
	46,290	29,076	26,707	27,720	20,152					40,356
60-64	62	121	45	21	6	5				260
	40,029	49,981	32,465	26,390	23,994	16,243				41,422
65-69	10	34	64	29	6	2				145
	46,537	46,430	45,140	33,407	31,929	15,887				42,242
70-74	4	8	18	29	27	8				94
	18,329	41,355	32,598	42,494	22,537	17,440				31,609
75-79		1	5	10	22	16	2			56
		4,538	20,155	37,682	27,468	20,192	16,656			25,765
80-84			1	1	5	3	4			14
			28,835	17,381	17,676	18,482	19,261			19,078
85-89					1	5	3			9
					29,701	22,454	15,452			20,925
90+						1	2			3
						20,661	27,288			25,079
<b>Total</b>	<b>310</b>	<b>239</b>	<b>164</b>	<b>117</b>	<b>76</b>	<b>40</b>	<b>11</b>	<b>0</b>	<b>0</b>	<b>957</b>
	<b>40,046</b>	<b>41,381</b>	<b>35,342</b>	<b>32,645</b>	<b>24,721</b>	<b>19,099</b>	<b>19,208</b>			<b>36,336</b>

Total Retired Benefit: \$34,773,877  
 Average Age: 61.93  
 Average Years Retired: 9.83

### Summary of Active Membership

<b>Active General Members</b>			
	<u>June 30, 2002</u>	<u>June 30, 2001</u>	<u>Percent Change</u>
<b>General Plan 1</b>			
A. Number	1,314	1,402	-6.7%
B. Average Age	53.75	52.64	2.1%
C. Average Years of Service	25.86	24.57	5.3%
D. Annual Salary			
i. Total	\$ 80,652,000	\$ 81,383,000	-0.9%
ii. Average Salary	\$ 61,379	\$ 58,048	5.7%
<b>General Plan 2</b>			
A. Number	433	457	-5.5%
B. Average Age	46.94	45.61	2.9%
C. Average Years of Service	12.84	11.39	12.7%
D. Annual Salary			
i. Total	\$ 22,526,000	\$ 22,158,000	1.7%
ii. Average Salary	\$ 52,025	\$ 48,486	7.3%
<b>General Plan 3</b>			
A. Number	9,871	8,922	10.6%
B. Average Age	42.84	42.30	1.3%
C. Average Years of Service	6.34	5.81	9.1%
D. Annual Salary			
i. Total	\$ 439,699,000	\$ 394,867,000	11.4%
ii. Average Salary	\$ 44,545	\$ 44,258	0.6%
<b>General Total</b>			
A. Number	11,618	10,781	7.8%
B. Average Age	44.23	43.78	1.0%
C. Average Years of Service	8.79	8.49	3.5%
D. Annual Salary			
i. Total	\$ 542,877,000	\$ 498,408,000	8.9%
ii. Average Salary	\$ 46,727	\$ 46,230	1.1%

**Active Safety Members**

		<u>June 30, 2002</u>	<u>June 30, 2001</u>	<u>Percent Change</u>
<b>Safety Plan 1</b>				
A.	Number	1,131	1,168	-3.3%
B.	Average Age	44.34	43.15	2.8%
C.	Average Years of Service	16.55	15.35	7.8%
D.	Annual Salary			
	i. Total	\$ 81,898,000	\$ 79,587,000	2.9%
	ii. Average Salary	\$ 72,412	\$ 68,140	6.3%
<b>Safety Plan 2</b>				
A.	Number	1,284	1,042	23.2%
B.	Average Age	34.54	34.16	1.1%
C.	Average Years of Service	5.39	5.45	-1.1%
D.	Annual Salary			
	i. Total	\$ 70,484,000	\$ 56,803,000	24.1%
	ii. Average Salary	\$ 54,894	\$ 54,513	0.7%
<b>Safety Total</b>				
A.	Number	2,415	2,210	9.3%
B.	Average Age	39.13	38.91	0.6%
C.	Average Years of Service	10.62	10.68	-0.6%
D.	Annual Salary			
	i. Total	\$ 152,382,000	\$ 136,390,000	11.7%
	ii. Average Salary	\$ 63,098	\$ 61,715	2.2%

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**Summary of Retired and Inactive Vested Membership**


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	<u>June 30, 2002</u>	<u>June 30, 2001</u>	<u>Percent Change</u>
<b>Retired Members</b>			
A. Service Retirement			
i. Number	4,119	3,975	3.6%
ii. Annual Allowance			
Basic Only	\$ 62,753,632	\$ 58,159,452	7.9%
COLA	<u>21,252,002</u>	<u>18,925,765</u>	12.3%
Total	\$ 84,005,634	\$ 77,085,217	9.0%
Average Monthly Amount	\$ 1,700	\$ 1,616	5.2%
B. Disability Retirement			
i. Number	674	651	3.5%
ii. Annual Allowance			
Basic Only	\$ 9,008,814	\$ 8,424,180	6.9%
COLA	<u>4,079,776</u>	<u>3,720,504</u>	9.7%
Total	\$ 13,088,590	\$ 12,144,684	7.8%
Average Monthly Amount	\$ 1,618	\$ 1,555	4.1%
C. Beneficiaries			
i. Number	949	900	5.4%
ii. Annual Allowance			
Basic Only	\$ 6,461,774	\$ 6,038,508	7.0%
COLA	<u>4,981,920</u>	<u>3,331,235</u>	49.6%
Total	\$ 11,443,694	\$ 9,369,743	22.1%
Average Monthly Amount	\$ 1,005	\$ 868	15.8%
Total			
i. Number	5,742	5,526	3.9%
ii. Annual Allowance			
Basic Only	\$ 78,224,220	\$ 72,622,140	7.7%
COLA	<u>30,313,697</u>	<u>25,977,504</u>	16.7%
Total	\$ 108,537,917	\$ 98,599,644	10.1%
Average Monthly Amount	\$ 1,575	\$ 1,487	5.9%
<b>Inactive Vested Members</b>			
A. Service Retirement	1,994	2,146	-7.6%

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Note: Effective June 30, 2002, we have only counted those members with a non-zero benefit.

**Summary of Monthly Allowances being Paid  
as of June 30, 2002**

**General Members**

	Count	Monthly Allowance		
		Basic	COLA	Total
<b>Service Retirement</b>				
Unmod	3,035	3,156,749	1,179,764	4,336,513
Opt 1	228	206,264	64,969	271,233
Opt 2,3,&4	241	193,548	48,850	242,398
<b>Total</b>	<b>3,504</b>	<b>3,556,560</b>	<b>1,293,583</b>	<b>4,850,144</b>
<b>Ordinary Disability</b>				
Unmod	282	206,810	89,472	296,283
Opt 1	20	12,109	4,031	16,140
Opt 2,3,&4	8	5,893	1,853	7,746
<b>Total</b>	<b>310</b>	<b>224,813</b>	<b>95,356</b>	<b>320,169</b>
<b>Duty Disability</b>				
Unmod	171	183,363	95,877	279,240
Opt 1	6	7,873	2,171	10,044
Opt 2,3,&4	5	5,227	1,665	6,891
<b>Total</b>	<b>182</b>	<b>196,462</b>	<b>99,713</b>	<b>296,176</b>
<b>Beneficiary</b>				
<b>Total</b>	<b>789</b>	<b>382,929</b>	<b>297,586</b>	<b>680,515</b>
<b>Total (all groups)</b>	<b>4,785</b>	<b>4,360,764</b>	<b>1,786,239</b>	<b>6,147,003</b>

**Safety Members**

	Count	Monthly Allowance		
		Basic	COLA	Total
<b>Service Retirement</b>				
Unmod	565	1,549,351	444,930	1,994,281
Opt 1	22	50,957	16,810	67,767
Opt 2,3,&4	28	72,601	15,677	88,277
<b>Total</b>	<b>615</b>	<b>1,672,909</b>	<b>477,417</b>	<b>2,150,326</b>
<b>Ordinary Disability</b>				
Unmod	20	26,860	13,191	40,051
Opt 1	-	-	-	-
Opt 2,3,&4	1	1,434	364	1,798
<b>Total</b>	<b>21</b>	<b>28,294</b>	<b>13,555</b>	<b>41,849</b>
<b>Duty Disability</b>				
Unmod	152	285,829	126,321	412,150
Opt 1	6	10,284	4,019	14,303
Opt 2,3,&4	3	5,052	1,017	6,069
<b>Total</b>	<b>161</b>	<b>301,165</b>	<b>131,357</b>	<b>432,522</b>
<b>Beneficiary</b>				
<b>Total</b>	<b>160</b>	<b>155,553</b>	<b>117,574</b>	<b>273,126</b>
<b>Total (all groups)</b>	<b>957</b>	<b>2,157,921</b>	<b>739,902</b>	<b>2,897,823</b>



D. Members' Contribution Rates

RECOMMENDED GENERAL MEMBERS' CONTRIBUTION RATES

Age	Basic				COL **				Basic and COL			
	First \$350 of Monthly Salary		Salary In Excess of \$350		First \$350 of Monthly Salary		Salary In Excess of \$350		First \$350 of Monthly Salary		Salary In Excess of \$350	
	Tier 1	Tier 2 & 3	Tier 1	Tier 2 & 3	Tier 1	Tier 3	Tier 1	Tier 3	Tier 1	Tier 2 & 3	Tier 1	Tier 2 & 3
20	3.84%		5.77%		0.59%		0.88%		4.43%		6.65%	
21	3.84%		5.76%		0.59%		0.88%		4.43%		6.64%	
22	3.85%		5.77%		0.59%		0.88%		4.44%		6.65%	
23	3.85%		5.78%		0.59%		0.88%		4.44%		6.66%	
24	3.86%		5.79%		0.59%		0.88%		4.45%		6.67%	
25	3.88%		5.81%		0.59%		0.89%		4.47%		6.70%	
26	3.89%		5.84%		0.59%		0.89%		4.48%		6.73%	
27	3.91%		5.87%		0.60%		0.90%		4.51%		6.77%	
28	3.94%		5.91%		0.60%		0.90%		4.54%		6.81%	
29	3.96%		5.94%		0.60%		0.91%		4.56%		6.85%	
30	3.99%		5.99%		0.61%		0.91%		4.60%		6.90%	
31	4.02%		6.03%		0.61%		0.92%		4.63%		6.95%	
32	4.05%		6.08%		0.62%		0.93%		4.67%		7.01%	
33	4.08%		6.13%		0.62%		0.94%		4.70%		7.07%	
34	4.12%		6.18%		0.63%		0.94%		4.75%		7.12%	
35	4.15%		6.23%		0.63%		0.95%		4.78%		7.18%	
36	4.19%	3.99%	6.29%	5.98%	0.64%	0.32%	0.96%	0.47%	4.83%	4.31%	7.25%	6.45%
37	4.23%		6.34%		0.65%		0.97%		4.88%		7.31%	
38	4.27%		6.40%		0.65%		0.98%		4.92%		7.38%	
39	4.31%		6.46%		0.66%		0.99%		4.97%		7.45%	
40	4.35%		6.53%		0.66%		1.00%		5.01%		7.53%	
41	4.40%		6.59%		0.67%		1.01%		5.07%		7.60%	
42	4.44%		6.66%		0.68%		1.02%		5.12%		7.68%	
43	4.49%		6.73%		0.69%		1.03%		5.18%		7.76%	
44	4.53%		6.80%		0.69%		1.04%		5.22%		7.84%	
45	4.58%		6.87%		0.70%		1.05%		5.28%		7.92%	
46	4.63%		6.95%		0.71%		1.06%		5.34%		8.01%	
47	4.69%		7.03%		0.72%		1.07%		5.41%		8.10%	
48	4.74%		7.11%		0.72%		1.09%		5.46%		8.20%	
49	4.79%		7.19%		0.73%		1.10%		5.52%		8.29%	
50	4.85%		7.28%		0.74%		1.11%		5.59%		8.39%	
51	4.91%		7.37%		0.75%		1.12%		5.66%		8.49%	
52	4.97%		7.46%		0.76%		1.14%		5.73%		8.60%	
53	5.04%		7.55%		0.77%		1.15%		5.81%		8.70%	
54	5.10%		7.65%		0.78%		1.17%		5.88%		8.82%	
55	5.17%		7.75%		0.79%		1.18%		5.96%		8.93%	
56	5.24%		7.85%		0.80%		1.20%		6.04%		9.05%	
57	5.31%		7.96%		0.81%		1.22%		6.12%		9.18%	
58	5.38%		8.07%		0.82%		1.23%		6.20%		9.30%	
59	5.45%		8.18%		0.83%		1.25%		6.28%		9.43%	

\* Full contribution rates expressed as a percentage of salary based upon 8.00% interest and 5.75% salary scale assumptions. Members who enter prior to 1/1/75 contribute as indicated above and all others contribute on the basis of a single entry age of 36.

\*\* COL fraction: Tier 1: 15.27%  
 Tier 3: 7.90%

RECOMMENDED SAFETY MEMBERS' CONTRIBUTION RATES

Age	Basic				COL **				Basic and COL			
	First \$350 of Monthly Salary		Salary In Excess of \$350		First \$350 of Monthly Salary		Salary In Excess of \$350		First \$350 of Monthly Salary		Salary In Excess of \$350	
	Tier 1	Tier 2	Tier 1	Tier 2	Tier 1	Tier 2	Tier 1	Tier 2	Tier 1	Tier 2	Tier 1	Tier 2
20	5.50%		8.25%		0.84%		1.26%		6.34%		9.51%	
21	5.50%		8.25%		0.84%		1.26%		6.34%		9.51%	
22	5.51%		8.26%		0.84%		1.26%		6.35%		9.52%	
23	5.52%		8.27%		0.84%		1.26%		6.36%		9.53%	
24	5.53%		8.30%		0.84%		1.27%		6.37%		9.57%	
25	5.55%		8.32%		0.85%		1.27%		6.40%		9.59%	
26	5.57%		8.36%		0.85%		1.28%		6.42%		9.64%	
27	5.60%		8.40%		0.86%		1.28%		6.46%		9.68%	
28	5.63%		8.45%		0.86%		1.29%		6.49%		9.74%	
29	5.67%	5.39%	8.51%	8.09%	0.87%	0.59%	1.30%	0.88%	6.54%	5.98%	9.81%	8.97%
30	5.72%		8.58%		0.87%		1.31%		6.59%		9.89%	
31	5.77%		8.65%		0.88%		1.32%		6.65%		9.97%	
32	5.82%		8.73%		0.89%		1.33%		6.71%		10.06%	
33	5.88%		8.81%		0.90%		1.35%		6.78%		10.16%	
34	5.94%		8.91%		0.91%		1.36%		6.85%		10.27%	
35	6.00%		9.00%		0.92%		1.37%		6.92%		10.37%	
36	6.07%		9.11%		0.93%		1.39%		7.00%		10.50%	
37	6.14%		9.21%		0.94%		1.41%		7.08%		10.62%	
38	6.22%		9.33%		0.95%		1.42%		7.17%		10.75%	
39	6.29%		9.44%		0.96%		1.44%		7.25%		10.88%	
40	6.37%		9.56%		0.97%		1.46%		7.34%		11.02%	
41	6.45%		9.68%		0.98%		1.48%		7.43%		11.16%	
42	6.53%		9.80%		1.00%		1.50%		7.53%		11.30%	
43	6.62%		9.92%		1.01%		1.52%		7.63%		11.44%	
44	6.70%		10.05%		1.02%		1.53%		7.72%		11.58%	
45	6.79%		10.18%		1.04%		1.55%		7.83%		11.73%	
46	6.88%		10.31%		1.05%		1.57%		7.93%		11.88%	
47	6.97%		10.45%		1.06%		1.60%		8.03%		12.05%	
48	7.06%		10.59%		1.08%		1.62%		8.14%		12.21%	
49	7.15%		10.72%		1.09%		1.64%		8.24%		12.36%	

\* Full contribution rates expressed as a percentage of salary based upon 8.00% interest and 5.75% salary scale assumptions. Members who enter prior to 1/1/75 contribute as indicated above and all others contribute on the basis of a single entry age of 36.

\*\* COL fraction: Tier 1: 15.27%  
 Tier 3: 10.89%

## E. CAFR Schedules

## Schedule of Active Member Valuation Data

Schedule of Active Member Valuation Data					
Valuation Date	Plan Type	Number	Annual Payroll	Annual Average Pay	% Increase in Average Pay *
6/30/1994	General	8,704	\$ 312,603,000	\$ 35,915	2.63%
	Safety	1,406	62,667,000	44,571	0.83%
	Total	10,110	\$ 375,270,000	\$ 37,119	2.21%
6/30/1995	General	8,973	\$ 335,175,000	\$ 37,354	4.01%
	Safety	1,488	70,108,000	47,116	5.71%
	Total	10,461	\$ 405,283,000	\$ 38,742	4.37%
6/30/1996	General	8,860	\$ 329,019,000	\$ 37,135	-0.58%
	Safety	1,896	88,584,000	46,722	-0.84%
	Total	10,756	\$ 417,603,000	\$ 38,825	0.21%
6/30/1997	General	8,684	\$ 328,676,000	\$ 37,848	1.92%
	Safety	1,863	90,791,000	48,734	4.31%
	Total	10,547	\$ 419,467,000	\$ 39,771	2.44%
6/30/1998	General	8,866	\$ 367,781,000	\$ 41,482	9.60%
	Safety	1,935	102,604,000	53,025	8.81%
	Total	10,801	\$ 470,385,000	\$ 43,550	9.50%
6/30/1999	General	9,350	\$ 400,287,000	\$ 42,811	3.20%
	Safety	2,004	102,038,000	50,917	-3.98%
	Total	11,354	\$ 502,325,000	\$ 44,242	1.59%
6/30/2000	General	10,217	\$ 441,118,000	\$ 43,175	0.85%
	Safety	2,018	117,930,000	58,439	14.77%
	Total	12,235	\$ 559,048,000	\$ 45,693	3.28%
6/30/2001	General	10,781	\$ 498,408,000	\$ 46,230	7.08%
	Safety	2,210	136,390,000	61,715	5.61%
	Total	12,991	\$ 634,798,000	\$ 48,864	6.94%
6/30/2002	General	11,618	\$ 542,877,000	\$ 46,727	1.08%
	Safety	2,415	152,382,000	63,098	2.24%
	Total	14,033	\$ 695,259,000	\$ 49,545	1.39%

\* Reflects the increase in average salary for members at the beginning of the year versus those at the end of the year, it does not reflect the average salary increases received by members who worked the full year.

Retirees and Beneficiaries Added To and Removed From Retiree Payroll

Plan Year Ending	At Beginning of Year*	Added During Year	Removed During Year*	At End of Year	Annual Retiree Payroll (In Thousands)	% Increase in Annual Retiree Payroll	Average Annual Allowance
6/30/1994	3,935	N/A	N/A	4,130	\$ 55,035	11.30%	\$ 13,326
6/30/1995	4,130	N/A	N/A	4,387	\$ 61,140	11.09%	\$ 13,937
6/30/1996	4,387	N/A	N/A	4,502	\$ 65,098	6.47%	\$ 14,460
6/30/1997	4,502	320	176	4,646	\$ 70,716	8.63%	\$ 15,221
6/30/1998	4,646	394	156	4,884	\$ 78,762	11.38%	\$ 16,127
6/30/1999	4,884	573	154	5,303	\$ 85,698	8.81%	\$ 16,160
6/30/2000	5,303	377	192	5,488	\$ 91,391	6.64%	\$ 16,653
6/30/2001	5,488	205	167	5,526	\$ 98,600	7.89%	\$ 17,843
6/30/2002	5,526	438	222	5,742	\$ 108,538	10.08%	\$ 18,762

N/A - Not Available

\* Participants are counted once for each benefit received.

Solvency Test  
(amounts in thousands)

Valuation Date	Aggregate Accrued Liabilities for				Portion of Accrued Liabilities Covered by Reported Assets				
	Active Member Contributions	Retired/Vested Members	Active Members (Employer Financed Portion)	Total	Actuarial Value of Assets	Active Member Contributions	Retired/Vested Members	Active Members (Employer Financed Portion)	
6/30/1994	\$ 192,649	\$ 732,203	\$ 709,921	\$ 1,634,773	\$ 1,106,922	100%	100%		26%
6/30/1995	\$ 213,766	\$ 848,904	\$ 773,194	\$ 1,835,864	\$ 1,767,064	100%	100%		91%
6/30/1996	\$ 244,228	\$ 892,185	\$ 850,817	\$ 1,987,230	\$ 1,956,715	100%	100%		96%
6/30/1997	\$ 260,787	\$ 975,206	\$ 990,447	\$ 2,226,440	\$ 2,238,557	100%	100%		100%
6/30/1998	\$ 285,779	\$ 1,043,514	\$ 1,080,349	\$ 2,409,642	\$ 2,600,547	100%	100%		100%
6/30/1999	\$ 303,957	\$ 1,122,054	\$ 1,308,537	\$ 2,734,548	\$ 3,017,639	100%	100%		100%
6/30/2000	\$ 322,134	\$ 1,239,894	\$ 1,549,732	\$ 3,111,760	\$ 3,427,348	100%	100%		100%
6/30/2001	\$ 393,924	\$ 1,323,405	\$ 1,734,535	\$ 3,451,864	\$ 3,718,198	100%	100%		100%
6/30/2002	\$ 370,625	\$ 1,427,334	\$ 1,788,291	\$ 3,586,250	\$ 3,718,198	100%	100%		100%

Events affecting year to year comparability:

- 06/30/94 - Investment return assumption reduced from 8.50% to 8.00%; Inflation assumption dropped from 5% to 4.50%; Salary increase assumption decreased from 6.00% to 5.50%.
- 06/30/95 - Inflation assumption decreased from 4.50% to 4.25%. Modification in non-economic assumptions. Included \$533,034 of Pension Obligation Bonds issued on July 5, 1995.
- 06/30/98 - Salary increase assumption increased from 5.50% to 5.55%. Modification in non-economic assumptions. Liability as a result of Ventura Court Decision was included.
- 06/30/01- Salary increase assumption increased from 5.55% to 5.75%. Modification in non-economic assumptions.

Sacramento County Employees' Retirement System -- 2001 CAFR  
 Actuarial Analysis of Financial Experience  
 (Amounts in millions)

	Plan Years Ending 6/30									
	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993
Prior Valuation Unfunded Actuarial Accrued Liability	\$ (266)	\$ (316)	\$ (283)	\$ (191)	\$ (12)	\$ 31	\$ 69	\$ 5	\$ 5	\$ 5
Salary Increase Greater (Less) than Expected	\$ 5	\$ 50	\$ 46	\$ (93)	\$ (29)					
Asset Return Less (Greater) than Expected	\$ (8)	\$ (3)	\$ (6)	\$ (11)	\$ (205)					
Other Experience	\$ 16	\$ (18)	\$ (2)	\$ (18)	\$ 55					
Liability from Ventura Court Decision	\$ -	\$ -	\$ -	\$ -	\$ 95					
Economic and Non-Economic Assumption Changes	\$ -	\$ 21	\$ -	\$ -	\$ 21					
Data Corrections	\$ -	\$ -	\$ -	\$ 30 *	\$ -					
Transfer from Excess Earnings	\$ -	\$ -	\$ (71)	\$ -	\$ (116)					
Ending Unfunded Actuarial Accrued Liability	\$ (253)	\$ (266)	\$ (316)	\$ (283)	\$ (191)	\$ (12)	\$ 31	\$ 5	\$ 5	\$ 5

\* Includes \$24 million in Recognition of Sick Leave Service in Valuation and \$6 million in Loss from Retirements.

## SCHEDULE OF AVERAGE BENEFIT PAYMENTS

Retirement Effective Dates 7/1/93-6/30/02	Years Since Retirement						
	0-4	5-9	10-14	15-19	20-24	25-29	30 & OVER
Period 7/1/93-6/30/94:							
Average Monthly Benefit	\$1,469	\$1,184	\$979	\$759	\$628	\$535	\$396
Number of Active Retirants	1,225	1,074	862	571	301	68	29
Period 7/1/94-6/30/95:							
Average Monthly Benefit	\$1,505	\$1,248	\$1,037	\$823	\$652	\$573	\$610
Number of Active Retirants	1,337	1,103	877	627	328	82	33
Period 7/1/95-6/30/96:							
Average Monthly Benefit	\$1,501	\$1,283	\$1,114	\$893	\$697	\$633	\$478
Number of Active Retirants	1,430	1,121	875	649	317	82	28
Period 7/1/96-6/30/97:							
Average Monthly Benefit	\$1,539	\$1,404	\$1,151	\$950	\$760	\$651	\$485
Number of Active Retirants	1,501	1,092	902	683	337	104	27
Period 7/1/97-6/30/98:							
Average Monthly Benefit	\$1,659	\$1,472	\$1,228	\$1,007	\$858	\$698	\$482
Number of Active Retirants	1,633	1,043	962	700	366	147	33
Period 7/1/98-6/30/99:							
Average Monthly Benefit	\$1,639	\$1,552	\$1,313	\$1,079	\$923	\$727	\$579
Number of Active Retirants	1,667	1,262	979	744	432	179	40
Period 7/1/99-6/30/00:							
Average Monthly Benefit	\$1,821	\$1,675	\$1,381	\$1,180	\$947	\$729	\$2,125
Number of Active Retirants	1,528	1,249	965	840	561	282	75
Period 7/1/00-6/30/01:							
Average Monthly Benefit	\$1,758	\$1,779	\$1,439	\$1,269	\$1,047	\$776	\$770
Number of Active Retirants	1,433	1,287	1,002	815	610	308	71
Period 7/1/01-6/30/02:							
Average Monthly Benefit	\$1,804	\$1,865	\$1,614	\$1,376	\$1,121	\$859	\$834
Number of Active Retirants	1,494	1,327	1,024	823	650	324	100

## F. Glossary of Actuarial Terminology

### Glossary of Actuarial Terminology

**AAL:** (See Actuarial Accrued Liability)

**Accrued Benefit:** The amount of an individual's benefit (whether or not vested) as of a specified date, determined in accordance with the terms of a pension plan and based on compensation (if applicable) and service to that date.

**Actuarial Accrued Liability:** "Target assets" which would be on hand were the System's current level of benefits to have been funded as a level percentage of pay each year from date of entry into the System by all current members and interest at the current investment return assumption were credited each year. It also includes the actuarial present value of all retired members and beneficiaries future benefits. Under the Entry Age Normal Funding Method, changes in Actuarial Accrued Liability due to experience different from our assumptions increase or decrease the Actuarial Accrued Liability.

**Actuarial Asset Value:** The value of Assets used by the actuary in the actuarial valuation. In order to reduce the impact of assets value fluctuation and to capture the long term intrinsic value of the System's assets, actuaries sometimes use smoothing methods. These methods usually reflect the current market value of assets in some manner.

**Actuarial Assumptions:** Those assumptions such as interest (investment return), salary increases, termination from service and mortality needed by the actuary to complete an actuarial valuation.

**Actuarial Gain (Loss):** The difference between actual experience and actuarial assumption anticipated experience during the period between two actuarial valuation dates.

**Actuarial Present Value:** The value of an amount or series of amounts payable or receivable at various times, determined as of a given date by the application of a particular set of Actuarial Assumptions. For purposes of this standard, each such amount or series of amounts is:

- (a) adjusted for the probable financial effect of certain intervening events (such as changes in compensation levels, Social Security, marital status, etc.)
- (b) multiplied by the probability of the occurrence of an event (such as survival, death, disability, termination of employment, etc.) on which the payment is conditioned, and
- (c) discounted according to an assumed rate (or rates) of return to reflect the time value of money.

**Actuarial Valuation:** The determination, as of a valuation date, of the Normal Cost, Actuarial Accrued Liability, Actuarial Value of Assets, and related Actuarial Present Values for a pension plan.

**Actuary:** A business mathematician trained in mathematics, risk analysis and finance. An actuary is assigned the task of determining the contribution required to maintain financial balance as to inflow and outflow from a retirement System.

**Assets:** Underlying funds available to provide for the System's benefits. It reflects the accumulation of all contributions and investment earnings.

**Contribution to the Unfunded Actuarial Accrued Liability (UAAL):** That annual contribution rate which, if paid annually over the UAAL amortization period, would accumulate to the amount necessary to fully fund the UAAL. Accumulation includes annual crediting of interest at the assumed investment earnings rate. The contribution is calculated to remain as a level percentage of future active member payroll (including payroll of new members as they enter the System) assuming a constant number of active members. In order to remain as a level percentage of payroll, amortization payments are scheduled to increase at the annual inflation rate.



**Entry Age Normal Actuarial Funding Method:** An actuarial method for pre-funding future retirement benefits. Under this method which the member contribution stream plus the employer contribution stream is determined as that level of percentage of payroll sufficient to finance benefits and employee contribution refunds for new entrant.

**GASB:** The Government Accounting Standards Board which promulgates financial reporting and disclosure requirements for governmental entities, including public retirement Systems.

**GASB Statement No. 5:** A set of disclosures promulgated by GASB to provide users of financial statements information as to the funding status of a public retirement System. GASB No. 5 specifies the Pension Benefit Obligation as a standardized target level of the accounting value of assets.

**GASB Statement No. 25:** A set of disclosures promulgated by GASB to provide users of financial statements information as to the funding status of a public retirement System. GASB No. 25 specifies the Actuarial Accrued Liability as a standardized level of the Actuarial Value of Assets.

**Investment Return Assumption:** The average rate of investment earnings which is assumed will be earned by System funds.

**Normal Cost:** That annual contribution rate which, if paid annually from a member's first year of membership through the year of retirement, would accumulate to the amount necessary to fully fund the member's retirement benefits. Accumulation includes annual crediting of interest at the assumed investment earnings rate. The contribution rate is expressed as a level percentage of the member's compensation.

**Pension Benefit Obligation:** A standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date.

**UAAL:** (See Unfunded Actuarial Accrued Liability).

**Unfunded Actuarial Accrued Liability:** Actuarial Accrued Liability minus the Actuarial Value of Assets.

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